Eastern Sierra Transit Authority Short-Range Transit Plan and Coordinated Transit-Human Services Transportation Plan

Prepared for

EASTERN SIERRA TRANSIT

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Chapter 1
INTRODUCTION

Inyo and Mono Counties are comprised of nearly a dozen distinct communities, ranging from very small, isolated localities to larger communities along US 395. The mix of urban and rural areas, some areas with easy highway access, some areas with a mix of suburban or low-density development only accessible by rural dispersed roads, makes providing transit to the region a challenge. Nonetheless, the Eastern Sierra Transit Authority (ESTA) has grown to provide a transit program which strives to meet the varied needs of Inyo and Mono Counties by providing a combination of demand response, fixed route, town to town, and inter-regional transit services.

This final Short-Range Transit Plan and Coordinated Transit-Human Services Transportation Plan (CHSP) document has been compiled from the efforts and findings of multiple interim reports, or Technical Memorandums, that were produced during the planning effort. The document begins by reviewing the setting for transportation services (including demographic factors), current and recent transportation plans, and the recent operating history of the public transit service supplied by ESTA. An overview of connecting services and social service programs extending beyond Inyo and Mono Counties is included. A peer transit analysis is then presented, followed by an overview of driver retention strategies. Then, a summary of the public outreach efforts and input from two workshops is presented followed by a review of ESTA goals, objectives, and standards. An overview of ESTA technology, safety, and security is then summarized with recommendations for improvements.

The final CHSP is included in Chapters 10 through 12. After that, a comprehensive list of possible capital and transit service alternatives is presented for consideration. The plan then goes on to analyze these alternatives in the context of ESTA's current funding capabilities and service capacity. This report concludes with the final SRTP in Chapter 16. In all, this SRTP and CHSP will serve as a guide for regional transportation agencies and social service organizations to ensure that transit programs are designed to best meet the mobility needs of both residents and visitors in the Eastern Sierra utilizing the available resources.

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Chapter 2
STUDY AREA OVERVIEW

STUDY AREA

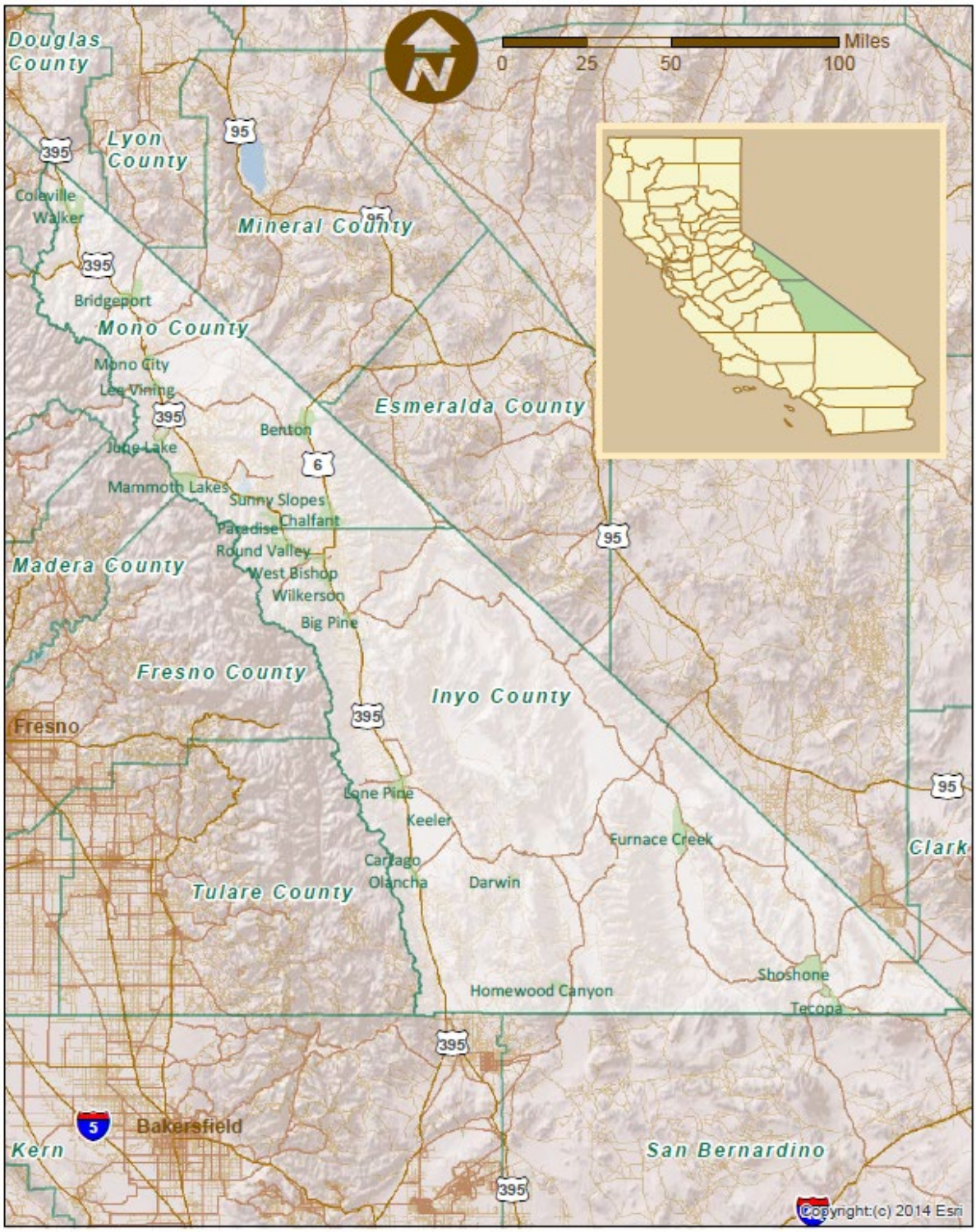
Inyo and Mono Counties are located in the easternmost portion of Central California, as depicted in Figure 1. The region spans the eastern slope of the Sierra Nevada Mountains between Monitor Pass to the north and Walker Pass to the south. Both counties are bordered to the east by the State of Nevada. The landscape of both counties is comprised of low elevation desert and ski resort towns all with a shared public transit operator, Eastern Sierra Transit Authority (ESTA).

Inyo County's geography includes the low desert of Death Valley, the high desert of Owens Valley, and the rapid ascension into the Eastern High Sierra including Mt. Whitney at an elevation of 14,495 feet. Mono County varies between high desert in the east and extreme mountainous terrain as well. In addition to serving high and low elevation areas, ESTA serves over 13,000 square miles of area. This poses several challenges in terms of public transit, such as providing effective transit service to such a large area and maintaining a vehicle fleet which can handle snow as well as long distance highway driving.

US 395 is the primary roadway that runs north to south, connecting the counties with the urban areas of Reno, Nevada to the north and the greater Los Angeles area to the south. There are only a few state highways in the study area that traverse the Sierra west to destinations in the California Central Valley (SR 89 over Monitor Pass, SR 108 over Sonora Pass and SR 120 over Tioga Pass), and then these are only open seasonally. Other highways travelling east toward Nevada are SR 190, SR 168, US 6, SR 182, and SR 167. Both Inyo and Mono Counties encompass large extents of land owned by federal land management agencies, such as the US Forest Service, National Park Service, and the Bureau of Land Management. A significant amount of land is also owned by the Los Angeles Department of Water and Power. The study area also includes Mono Lake, the eastern entrance to Yosemite National Park, Death Valley National Park, and the tallest mountain in the continental US (Mt. Whitney).

Limited by public lands and geography, the developed areas of the two counties consist mostly of small communities along the US 395 corridor. There is one incorporated city in Inyo County (the City of Bishop) and one incorporated city in Mono County (the Town of Mammoth Lakes). Tourism and recreation are the major industries in the region. Approximately 3 million people visit the Eastern Sierra annually. Many visitors are retirees or disabled individuals who may require transportation during their stay. Although beautiful, the extensive natural areas and long travel distances create challenges when it comes to providing transportation and to connecting the area's residents with needed services. The public transit routes and services are further described in Chapter 3.

Figure 1
Inyo and Mono Counties Project Location



POPULATION

Historical Population and Projections

Table 1 and Figure 2 illustrate the population and projected population in Inyo and Mono Counties from 1990 through 2045. As shown, the population in Inyo County increased by 1.5 percent from 2000 to 2010. This population change is significantly lower than the 10 percent population growth rate in California during the same period. The Mono County population grew at a similar rate as the rest of the state between 2000 and 2010 (9.4 percent). Within the study area of the combined Inyo and Mono Counties, the population is expected to increase by 7.1 percent between the years 2010 to 2020, and 13.7 between 2010 and 2035.

Table 1: Historic and Projected Populations of Inyo and Mono Counties

	1990	2000	2010	2020	2030	2040
Inyo County	18,198	18,193	18,457	18,429	18,020	17,552
Annual Percent Growth	-	0.0%	0.1%	0.0%	-0.2%	-0.3%
Over Previous Period	-	0.0%	1.5%	-0.2%	-2.2%	-2.6%
Mono County	10,078	12,806	14,016	13,447	14,118	14,009
Annual Percent Growth	-	2.4%	0.9%	-0.4%	0.5%	-0.1%
Over Previous Period	-	27.1%	9.4%	-4.1%	5.0%	-0.8%
Study Area	28,276	30,999	32,473	31,876	32,138	31,561
Annual Percent Growth	-	0.9%	0.5%	-0.2%	0.1%	-0.2%
Over Previous Period	-	9.6%	4.8%	-1.8%	0.8%	-1.8%
California Population	29,760,021	33,871,648	37,253,956	39,782,419	41,860,549	43,353,414
Annual Percent Growth	-	1.3%	1.0%	0.7%	0.5%	0.4%
Over Previous Period	-	13.8%	10.0%	6.8%	5.2%	3.6%

Sources: US Census Data (Years 1990-2020) and the California Demographic Research Unit (Years 2030 and 2040)

Projections of Population by Age

Table 2 illustrates population projections by age group between the years of 2020 and 2040, as estimated by the California Department of Demographic Research. This data grants insight into the future population trends of transit-dependent youth and elderly groups. Per Table 2, the population of retirees (ages 62 through 84) is expected to rise by 2.7 percent in Inyo County, 10.7 percent in Mono County, and 5.7 percent in the combined study area. During this period, the population of seniors (ages 85 or more) is projected to grow by 4 percent in Inyo County, 31 percent in Mono County, and 11 percent in the combined study area. These steady growth rates suggest a slight need for increased public transit options in the coming decades, however maintaining current levels of transit will be essential.

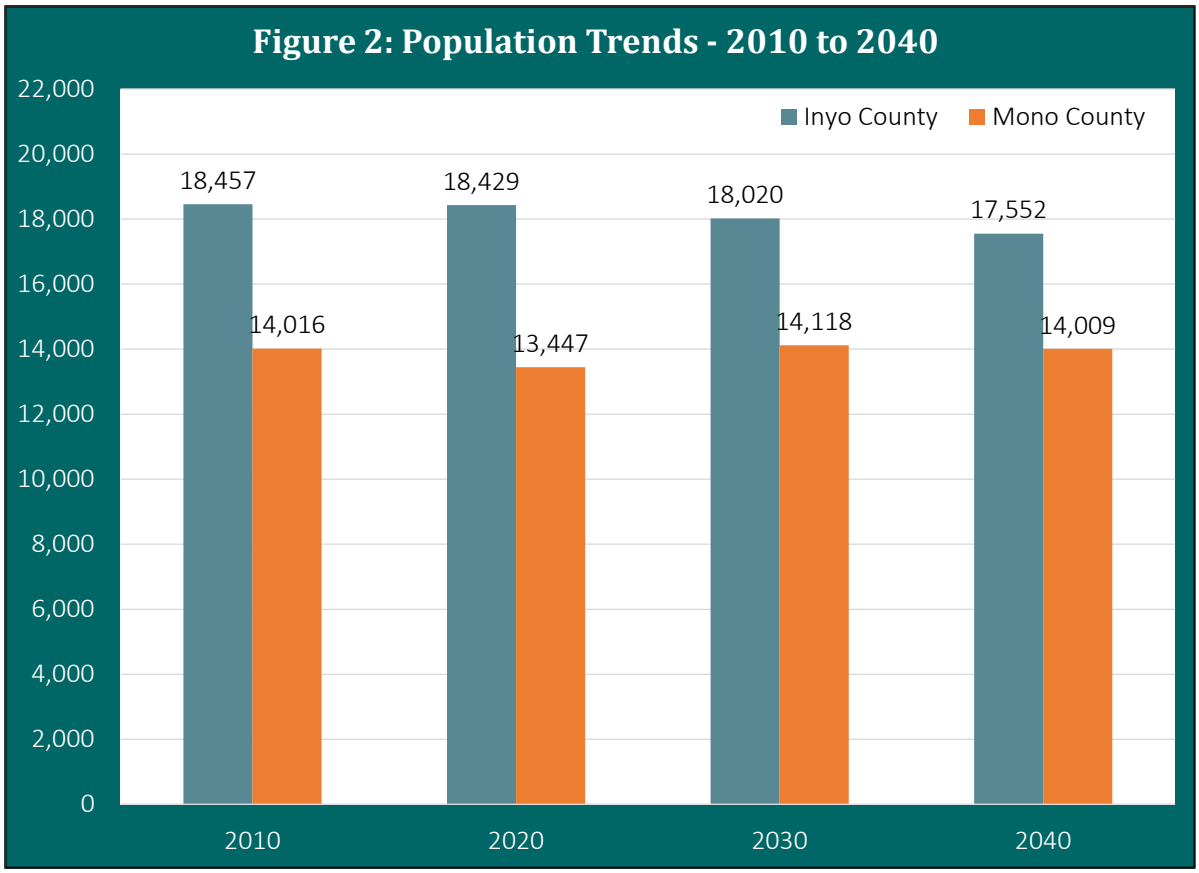


Table 2 also indicates that the school age population (ages 5-17) is expected to decrease slightly, by 1 percent, between the years of 2020 and 2040 within the combined study area of Inyo and Mono Counties. However, Mono County's school age population is predicted to increase by 4 percent over the next two decades. Figure 3 illustrates the trends in population growth for the elderly and youth groups. The most consistent and incremental growth over the next two decades will occur amongst those ages 75 and older.

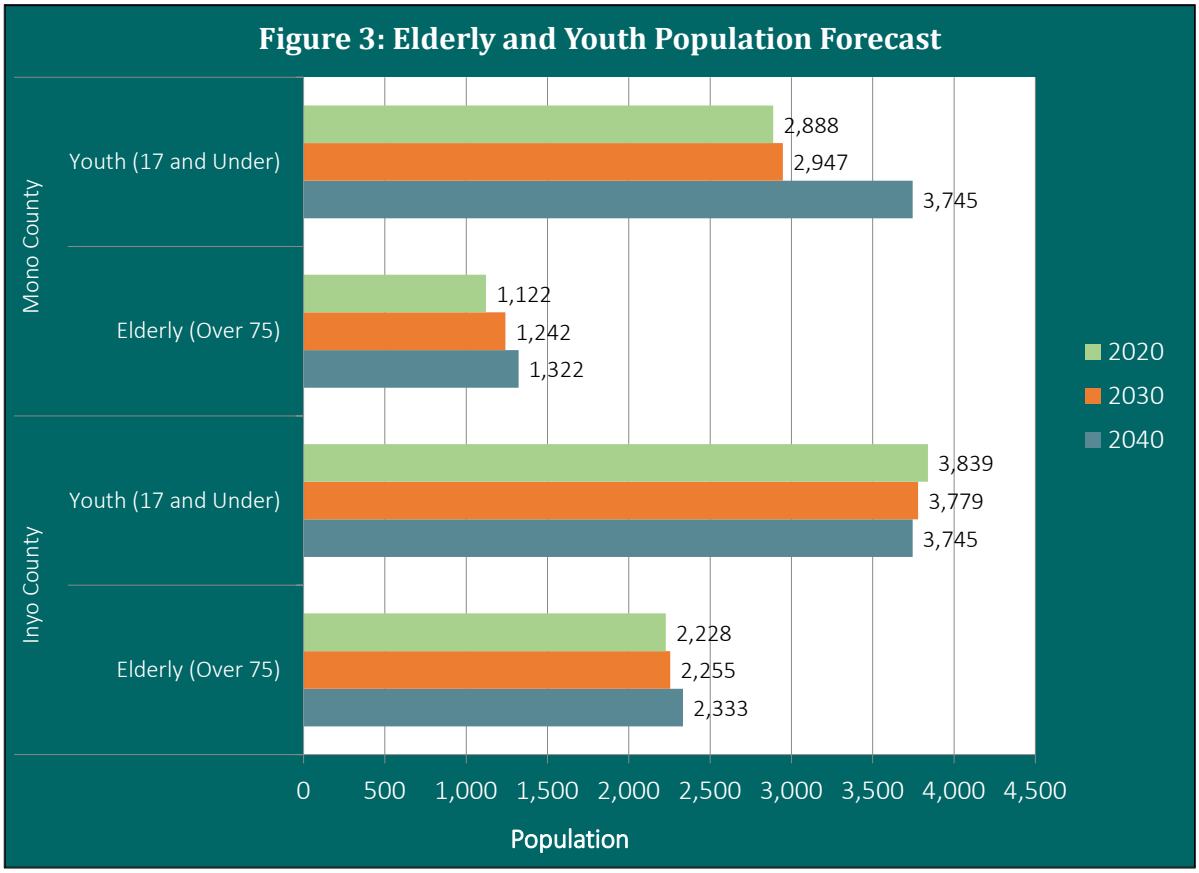
Visitor Population

Mammoth Lakes is a year-round resort community. The majority of visitors travel by auto from the greater Los Angeles area, although the outdoor activities in the high Sierra and Yosemite National Park also attract tourists from far away locations. Due to the convenience and fare-free nature of some of ESTA's routes, many visitors opt to use public transit as their primary mode of travel within the Mammoth Lakes area. Further, in order to visit Devils Postpile Monument and access hiking/backpacking in the Reds Meadow area, visitors and residents must ride the ESTA Reds Meadow Shuttle route during peak season. During the winter season, plenty of visitors use ESTA services to get to Mammoth Mountain Ski Area rather than compete for limited parking spaces. As such visitors are an important sector of ridership on ESTA services.

Table 2: Population Projections by Age Groups for Inyo and Mono Counties

Year	Total (All ages)	Preschool Age (0-4 years)	School Age (5-17 years)	College Age (18-24 years)	Working Age (25-61 years)	Young Retirees (62-74 years)	Mature Retirees (75-84 years)	Seniors (85 or more)
Inyo County								
2020	18,429	941	2,898	1,377	7,267	3,718	1,443	785
2030	18,172	898	2,881	1,299	7,124	3,715	1,465	790
2040	18,142	871	2,874	1,263	7,021	3,780	1,520	813
2020-30 Change								
#	-257	-43	-17	-78	-143	-3	22	5
%	-1%	-5%	-1%	-6%	-2%	0%	2%	1%
2020-40 Change								
#	-287	-70	-24	-114	-246	62	77	28
%	-2%	-7%	-1%	-8%	-3%	2%	5%	4%
Mono County								
2020	13,447	654	2,234	915	6,245	2,277	835	287
2030	13,838	631	2,316	941	6,293	2,415	918	324
2040	13,898	596	2,314	975	6,191	2,500	946	376
2020-30 Change								
#	391	-23	82	26	48	138	83	37
%	3%	-4%	4%	3%	1%	6%	10%	13%
2020-40 Change								
#	451	-58	80	60	-54	223	111	89
%	3%	-9%	4%	7%	-1%	10%	13%	31%
Total Study Area								
2020	31,876	1,595	5,132	2,292	13,512	5,995	2,278	1,072
2030	32,010	1,529	5,197	2,240	13,417	6,130	2,383	1,114
2040	32,040	1,467	5,188	2,238	13,212	6,280	2,466	1,189
2020-30 Change								
#	134	-66	65	-52	-95	135	105	42
%	0%	-4%	1%	-2%	-1%	2%	5%	4%
2020-40 Change								
#	164	-128	56	-54	-300	285	188	117
%	1%	-8%	1%	-2%	-2%	5%	8%	11%

Source: California Demographic Research Unit, Accessed August, 2021



According to the 2015-2019 American Community Survey (ACS), conducted by the US Census Bureau, 62 percent of the 9,795 housing units in the Mammoth Lakes census-designated place are occupied only seasonally. The Mammoth Mountain Ski Area serves over 1.3 million skier visits every winter and 1.5 million recreational visitors in the summer. According to the National Visitor Use Monitoring (NVUM) program, FY 2016 surveys conducted in Inyo National Forest (spanning from Mt. Whitney to Mono Lake) indicated that there were roughly 4.6 million total estimated national forest visits over the course of the year. This number has likely increased over the last several years as Covid-19 restrictions have encouraged more outdoor activity usage throughout the US. According to the Outdoor Industry Association, day hiking participation rates alone increased by 8.4 percent between 2019 and 2020. This could mean a national forest visitation of nearly 5 million people per year.

Transit Dependent Population

Nationwide, transit system ridership is drawn largely from various groups of persons who make up what is often called the transit dependent population. This category includes youth populations, elderly persons, low-income persons, members of households with no available vehicles, and persons with disabilities. There is considerable overlap among these groups. Table 3 presents the transit dependent populations by community in Mono and Inyo Counties based on data from the 2015-2019 ACS.

- The **youth population**, defined as people who are under 18 years old, make up 16 percent of the Inyo County population and 20 percent of the population in Mono County. As shown in Figure 4,

the largest concentration of this population resides in Mono City (44 percent), followed by Crowley Lake (26 percent) and Wilkerson (26 percent).

- There are an estimated 4,696 persons ages 65 or over residing in the study area, comprising 16 percent of the total population (Figure 5). There is a much greater population of seniors in Inyo County (24 percent) than within Mono County (8 percent). Of those living within Inyo County, large concentrations of people 65 years or older reside in Homewood Canyon (65 percent) and Tecopa (57 percent).
- Figure 6 presents the number and percentage of residents who are defined by the census as having a disability. It is estimated there are 2,804 disabled persons living in the study area, which comprises 10 percent of the study area population. Of the communities in Inyo County, Darwin had the highest concentrations of those living with a disability (58 percent). Topaz had the highest concentration of those living with a disability (29 percent) in Mono County.
- Low-income persons are another likely market for transit services, as measured by the number of persons living below the poverty level (determined by applying one or more of 48 thresholds defining poverty). An estimated 2,843 low-income persons reside in the study area, representing 10 percent of the total Inyo and Mono County population. The concentration of those with poverty status was highest in the communities of Mono City (100 percent), Coleville (25 percent), and Swall Meadows (20 percent) as shown in Figure 7.
- Another key indicator of need for transit service is the number of households without access to an operable vehicle. According to the 2015-2019 ACS there are 20,533 households in the study area. Of these, 468 households do not have a vehicle available for use (or 2 percent). Another 3,704 households (18 percent) only have one car available; thereby making it difficult for more than one household member to travel to work by private vehicle. These population concentrations are shown in Figure 8.

ECONOMY / EMPLOYMENT

Inyo and Mono Counties both rely on a mixed-industry economy, which includes recreational tourism, hospitals, schools, entertainment facilities, government entities, and building production/supply sectors. Table 4 lists the major employers in Inyo County and Mono County, drawn from the California Employment Development Department's 2021 Labor Market Information System. Two of the top major employers in Inyo County are both situated within Death Valley (Death Valley National Park Service and Furnace Creek Ranch) with between 250 to 500 employees. Another major employer within Inyo County includes the Northern Inyo Hospital (250 to 500 employees). In Mono County, most jobs are within the tourism sector, related to the ski resort in Mammoth Lakes, or in county government. The largest employers in Mono County include the Mammoth Mountain Ski Area, Mammoth Mountain Resort, Mammoth Hospital, and Mammoth Unified School District.

Table 3: Inyo and Mono Counties Transit Dependent Population by Place

			Youth (Under 18 years old)		Older Adults (age 65+)		Persons Living Below Poverty Status		Households by Number of Vehicles				Residents with Disabilities	
									0 Vehicles		1 Vehicle			
	Total Population	Households	Total	% of Community Population	Total	% of Community Population	Total	% of Community Population	# of Households	% of Households	# of Households	% of Households	Total	% of Community Population
Inyo County														
Total Bishop Area	9,143	4,564	1,270	14%	2,227	24%	510	*6%*	284	*6%*	1,449	*32%*	1,311	*14%*
Bishop	*3,745*	*2,187*	*469*	*13%*	*829*	*22%*	*244*	*7%*	*274*	*13%*	994	*45%*	*686*	*18%*
Dixon Lane-Meadow	*2,664*	*1,205*	*424*	*16%*	*680*	*26%*	*266*	*10%*	*0*	*0%*	307	*25%*	*417*	*16%*
West Bishop	*2,734*	*1,172*	*377*	*14%*	*718*	*26%*	*0*	*0%*	*10*	*1%*	148	*13%*	*208*	*8%*
Big Pine	1,524	699	332	22%	352	23%	76	5%	2	*0%*	169	*24%*	262	17%
Cartago	5	5	0	0%	5	100%	0	0%	0	*0%*	5	*100%*	0	0%
Darwin	100	59	0	0%	46	46%	0	0%	0	*0%*	0	*0%*	58	58%
Furnace Creek	108	85	5	5%	5	5%	17	16%	0	*0%*	88	*104%*	5	5%
Homewood Canyon	69	46	0	0%	45	65%	0	0%	0	*0%*	9	*20%*	17	25%
Independence	603	286	86	14%	157	26%	93	15%	0	*0%*	80	*28%*	86	14%
Keeler	10	10	0	0%	5	50%	0	0%	0	*0%*	0	*0%*	5	50%
Lone Pine	1,807	758	455	25%	403	22%	271	15%	0	*0%*	158	*21%*	213	12%
Mesa	348	146	60	17%	52	15%	36	10%	0	*0%*	13	*9%*	29	8%
Olancha	229	81	7	3%	44	19%	0	0%	0	*0%*	0	*0%*	22	10%
Round Valley	509	154	51	10%	43	8%	29	6%	0	*0%*	40	*26%*	43	8%
Shoshone	17	13	0	0%	3	18%	0	0%	0	*0%*	14	*108%*	0	0%
Tecopa	168	102	19	11%	95	57%	30	18%	0	*0%*	11	*11%*	61	36%
Wilkerson	519	180	135	26%	111	21%	114	22%	0	*0%*	6	*3%*	54	10%
Subtotal Inyo County	**15,159**	**7,188**	**2,421**	**16%**	**3,593**	**24%**	**1,176**	**8%**	**286**	***4%***	**2,042**	***28%***	**2,166**	**14%**
Mono County														
Benton	328	131	8	2%	50	15%	3	1%	2	*2%*	26	*20%*	23	7%
Bridgeport	542	437	84	15%	163	30%	8	1%	0	*0%*	29	*7%*	3	1%
Chalfant	1,005	255	114	11%	92	9%	144	14%	20	*8%*	65	*25%*	219	22%
Coleville	464	241	84	18%	12	3%	114	25%	0	*0%*	55	*23%*	32	7%
Crowley Lake	1,077	522	282	26%	97	9%	178	17%	14	*3%*	75	*14%*	6	1%
June Lake	390	794	22	6%	153	39%	56	14%	0	*0%*	24	*3%*	25	6%
Lee Vining	98	62	0	0%	12	12%	4	4%	0	*0%*	36	*58%*	4	4%
Mammoth Lakes	8,169	9,795	1,863	23%	187	2%	879	11%	55	*1%*	1171	*12%*	173	2%
Mono City	96	66	42	44%	12	13%	96	100%	0	*0%*	54	*82%*	0	0%
Paradise	172	109	39	23%	32	19%	10	6%	0	*0%*	16	*15%*	33	19%
Sunny Slopes	67	220	0	0%	26	39%	0	0%	0	*0%*	44	*20%*	15	22%
Swall Meadows	251	228	6	2%	87	35%	49	20%	1	*0%*	33	*14%*	11	4%
Topaz	126	70	0	0%	16	13%	0	0%	60	*86%*	0	*0%*	36	29%
Walker	858	415	127	15%	164	19%	126	15%	30	*7%*	70	*17%*	58	7%
Subtotal Mono County	**13,643**	**13,345**	**# 2,671**	**20%**	**# 1,103**	**8%**	**# 1,667**	**12%**	**182**	***1%***	**1,698**	***13%***	**638**	**5%**
Total Study Area	**28,802**	**20,533**	**5,092**	**18%**	**# 4,696**	***16%***	**2,843**	**10%**	**468**	***2%***	**3,740**	***18%***	**2,804**	**10%**

Source: US Census Bureau American Community Survey, 2015-2019

Figure 4
Youth (Under 18 Years Old) Population

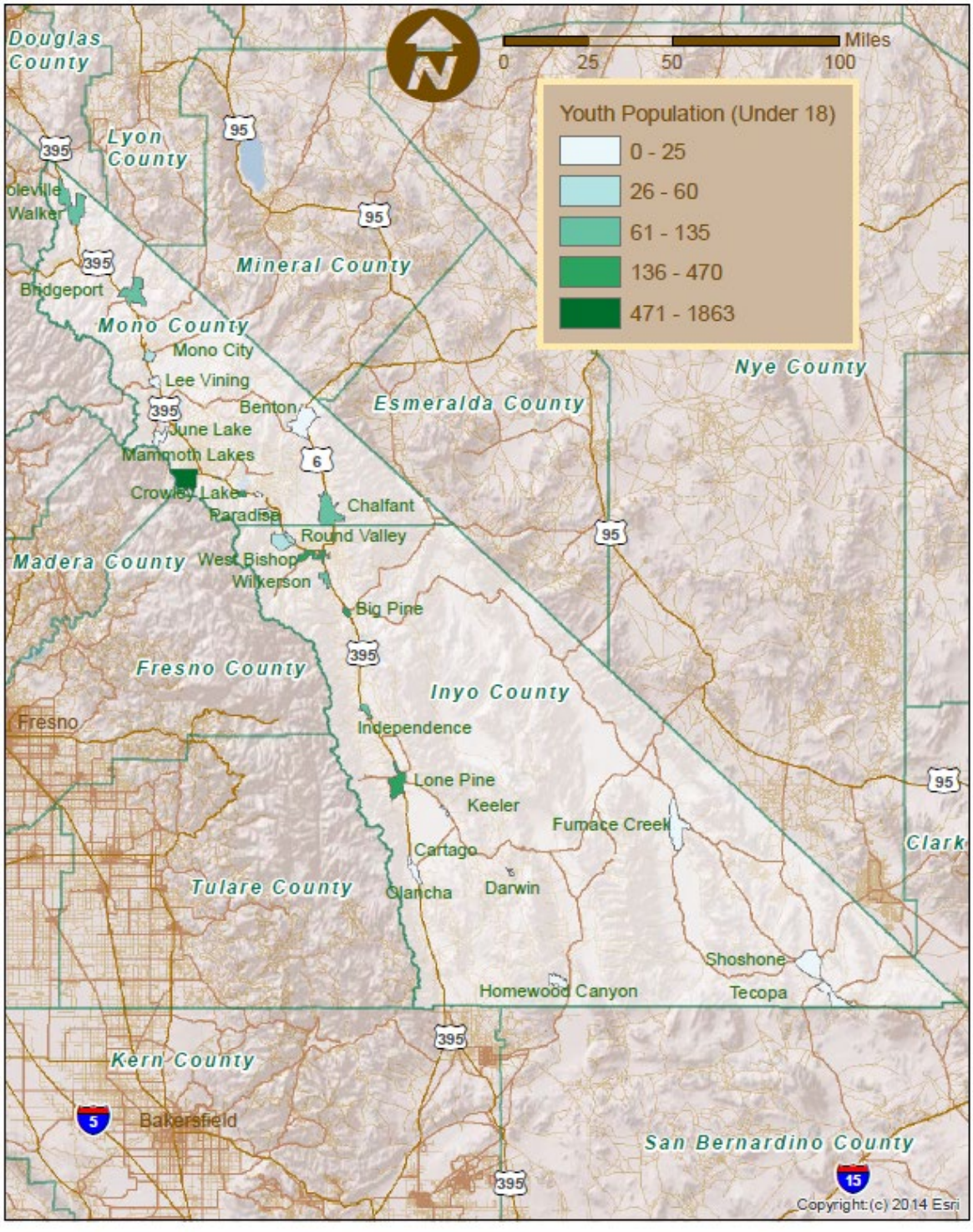


Figure 5
Older Adults (Ages 65 and older) Population

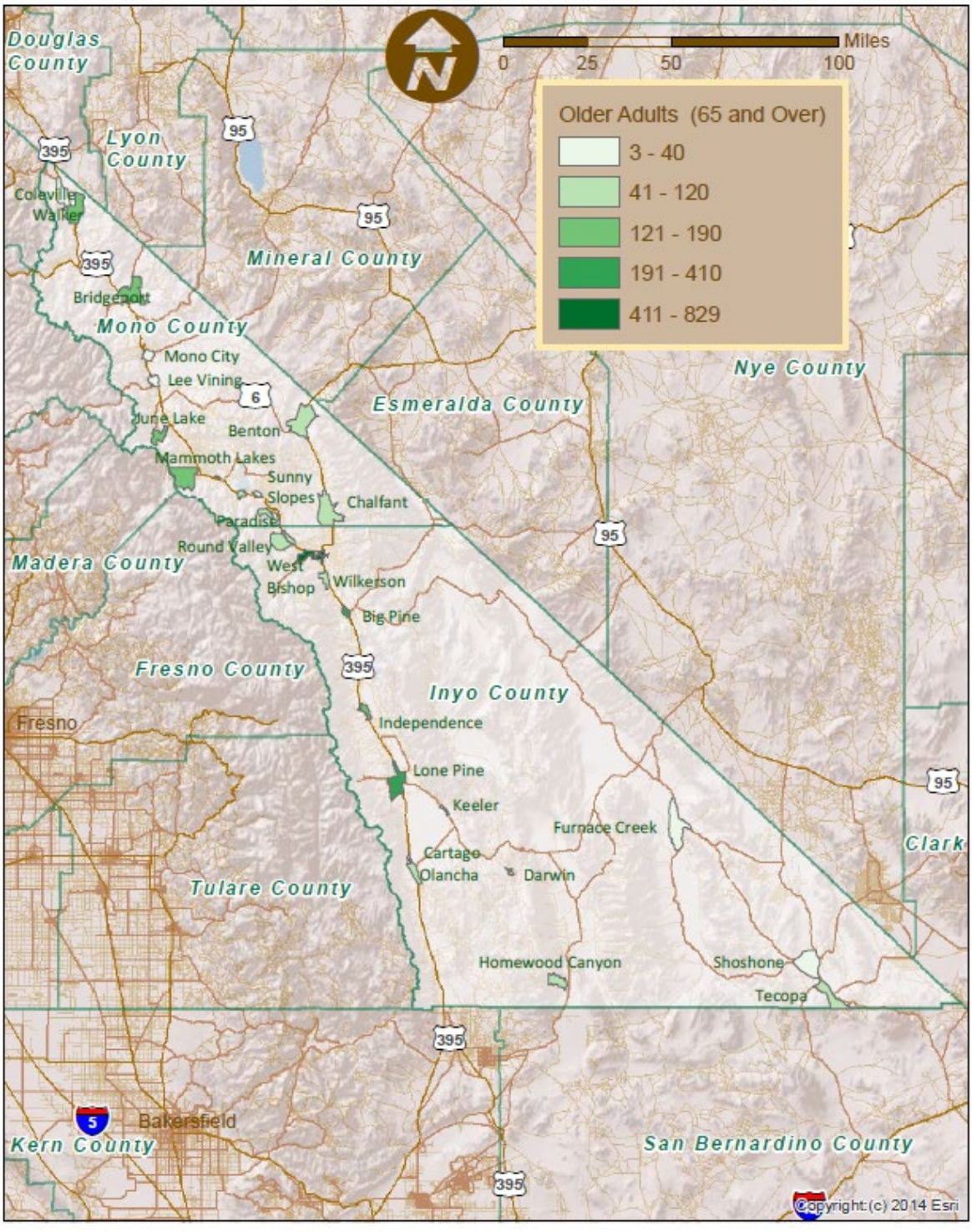


Figure 6
Population of Persons Living with a Disability

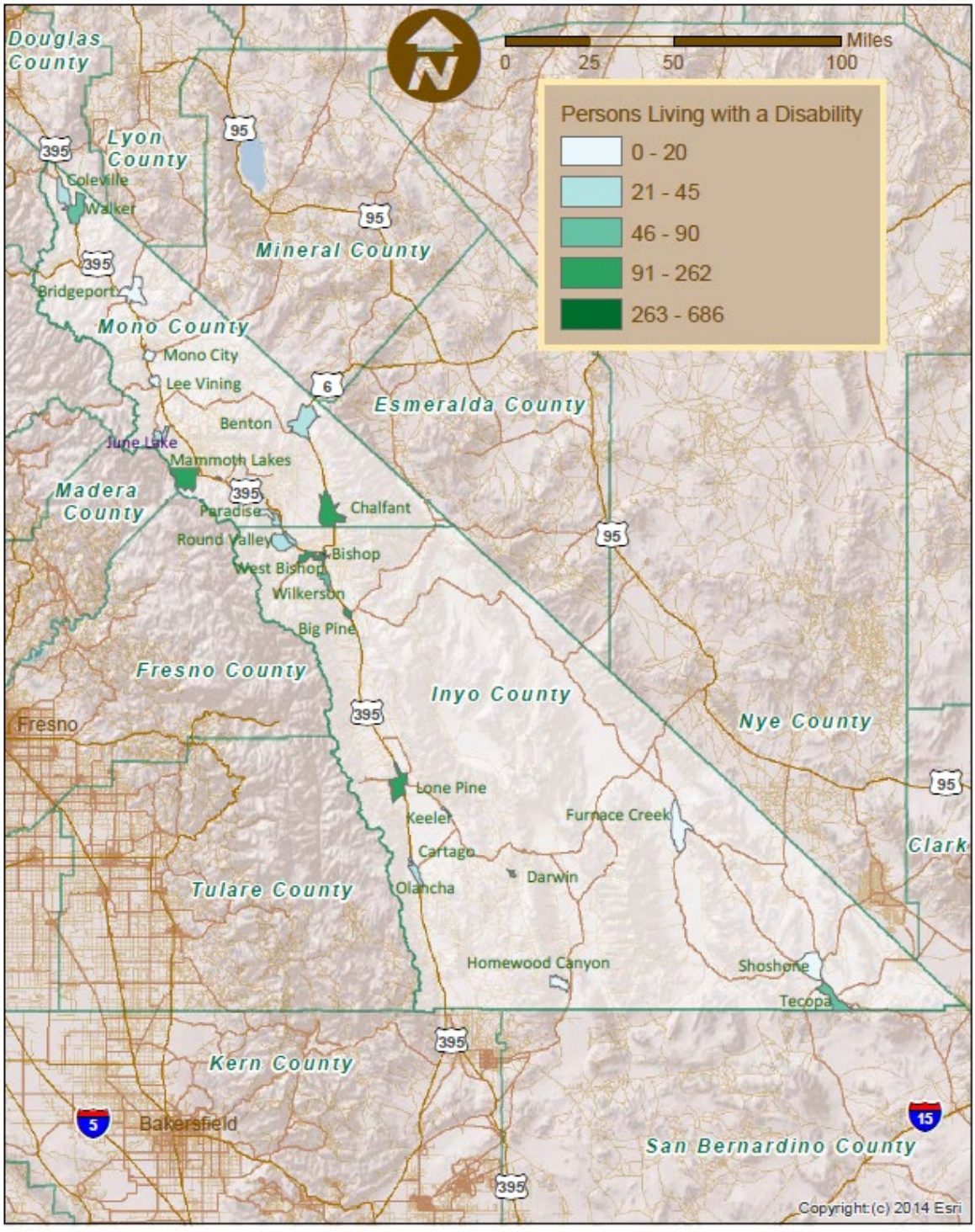


Figure 7
Population of Persons Living Below Poverty Line

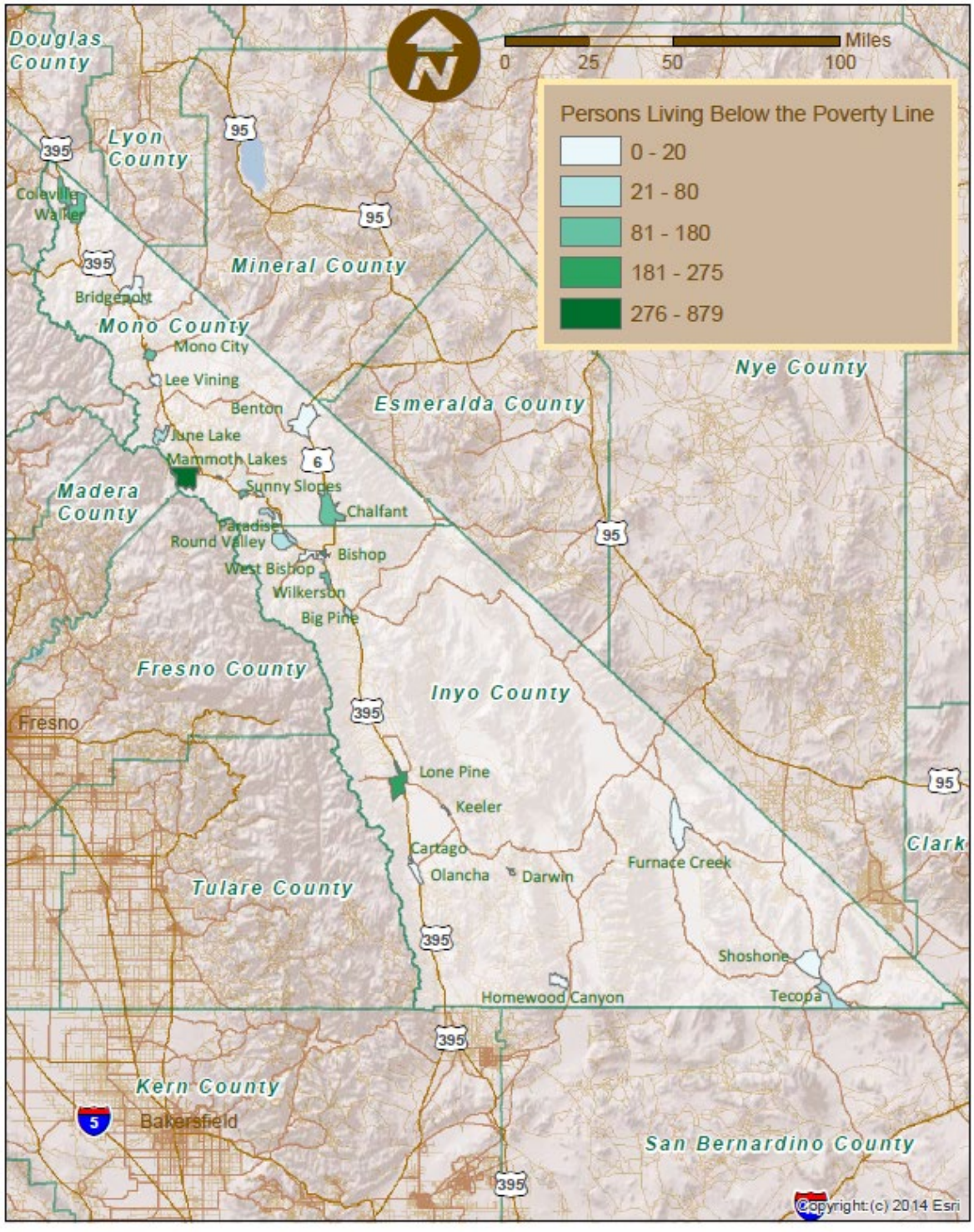


Figure 8
Households with Zero Vehicles

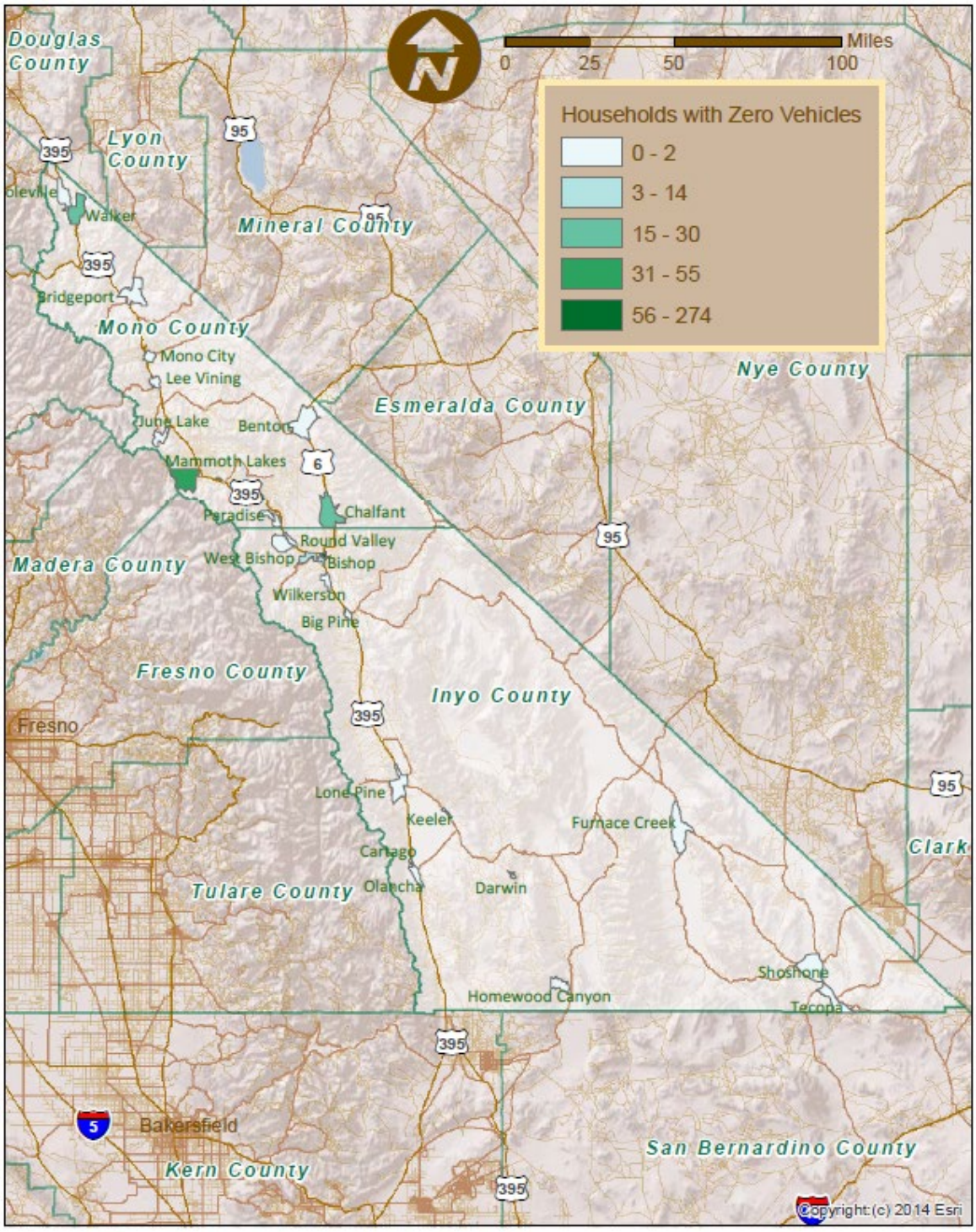


Table 4: Major Employers in the Study Area

Inyo County			Mono County		
Major Employers	Location	# Employees	Major Employers	Location	# Employees
Death Valley National Park Svc	Death Valley	250-499	Mammoth Mountain Ski Area	Mammoth Lakes	1000-4999
Furnace Creek Ranch	Death Valley	250-499	Mammoth Mountain Resort	Mammoth Lakes	1000-4999
Northern Inyo Hospital	Bishop	250-499	Mammoth Hospital & Sierra Park	Mammoth Lakes	250-499
Bishop Paiute Gaming	Bishop	100-249	Mammoth Unified School District	Mammoth Lakes	250-499
County Courthouse	Independence	100-249	June Mountain Ski Area	June Lake	100-249
Department of Water & Power	Independence	100-249	Juniper Springs Resort	Mammoth Lakes	100-249
Elm Street Elementary School	Bishop	100-249	Mono County Public Works Dept.	Bridgeport	100-249
Southern Inyo Hospital	Lone Pine	100-249	Village Lodge Mammoth	Mammoth Lakes	100-249
Toiyabe Indian Health Project	Bishop	100-249	Vons	Mammoth Lakes	100-249
Transportation Department	Bishop	100-249	Westin-Monache Resort	Mammoth Lakes	100-249
US Forestry Dept.	Bishop	100-249	Chart House Restaurant	Mammoth Lakes	50-99
Vons	Bishop	100-249	Coleville High School	Coleville	50-99
Aqueduct System	Bishop	50-99	Double Eagle Resort	June Lake	50-99
Bishop Care Center	Bishop	50-99	Mammoth Elementary School	Mammoth Lakes	50-99
Death Valley Unified School Dist.	Shoshone	50-99	Mammoth Lakes Fire Dept.	Mammoth Lakes	50-99
High Country Lumber	Bishop	50-99	Mammoth Mountain Inn	Mammoth Lakes	50-99
Inyo County Sheriff	Independence	50-99	Mammoth Pacific LP	Mammoth Lakes	50-99
Lo-Inyo Elementary School	Lone Pine	50-99	Mammoth Ranger District Center	Mammoth Lakes	50-99
Lone Pine School District Office	Lone Pine	50-99	Mammoth Reservation	Mammoth Lakes	50-99
Los Angeles Operation & Maintenar	Independence	50-99	Mono County Office of Edu	Bridgeport	50-99
Los Angeles Water & Power Dept.	Bishop	50-99	Mono County Office-Emergency	Bridgeport	50-99
Los Angeles Water Supply Div.	Bishop	50-99	Sheriff Office-Finance	Bridgeport	50-99
Stovepipe Wells Village	Death Valley	50-99	Tamarack Lodge & Resort	Mammoth Lakes	50-99
C G Roxane Water Co	Olancha	50-99	Annett's Mono Village Inc.	Bridgeport	20-49
			Sierra Star Golf Course	Mammoth Lakes	20-49

Source: California Employment Development Department, America's Labor Market Information System, 2021

Labor Force

According to the 2015-2019 ACS, there are 14,750 individuals over the age of 16 in Inyo County, of which 58.3 percent are in the labor force. Of the 11,974 individuals over the age of 16 in Mono County, an estimated 72.6 percent are in the labor force. The unemployment rate is 4.1 percent in Inyo County and 3.4 percent in Mono County. These unemployment rates are each slightly less than the statewide rate of 5.1 percent, according to the ACS.

Commute Modes of Transportation

The 2015-2019 ACS indicates that a majority of employed residents (ages 16 and older) in Inyo County drove alone to work (68 percent), while 14 percent carpooled. In addition, 8 percent walked, and 5 percent bicycled (Table 5). About 4 percent of employed persons worked at home, which is lower than the statewide average of 6 percent. In Mono County, 50 percent of residents drove alone to work, followed by 21 percent who took public transit. Additionally, 12 percent of working residents carpooled, and 5 percent bicycled to and from work. 6 percent of those working in Mono County do so from home.

Table 5: Commute Modes of Transportation

	Car, Truck, or van (drove alone)	Car, Truck, or van (carpooled)	Public Transit	Walked	Bicycle	Worked from home
Inyo County	68%	14%	1%	8%	5%	4%
Mono County	50%	12%	21%	5%	6%	6%

Source: US Census Bureau American Community Survey, 2015-2019

Existing Commute Patterns

The US Census' Longitudinal Employee / Households Dynamics dataset provides useful information regarding existing commute patterns. The most recent data (from 2019) for all of Inyo County is presented in Table 6 and data for Mono County is shown in Table 7.

While this data includes persons that do not commute on a daily basis, it still presents a good indication of overall commuting patterns. Highlights of this data are as follows:

- 30 percent of those living in Inyo County work in Bishop with another 8 percent working in Mammoth Lakes.
- Lone Pine, West Bishop, and Fresno also cumulatively made up another 9 percent of locations where Inyo County residents work.
- Of the 40 percent grouped into "All Other Locations" these work destinations included Los Angeles, Ridgecrest, Clovis, San Francisco, and other distant locations. It is likely that those working in Los Angeles work locally for the Los Angeles Department of Water and Power while others may work remotely.
- Of those working within Inyo County, 27 percent, or 1,979 people live within Bishop and West Bishop cumulatively, followed by Dixon Lane-Meadow Creek (11 percent), Big Pine (5 percent), and Lone Pine (4 percent).
- Of the 39 percent grouped into "All Other Locations" these residential locations included June Lake, Mammoth, and Fresno.
- Nearly 40 percent of those living within Mono County work in Mammoth Lakes, followed by Bridgeport (6 percent), and Bishop (4 percent).
- 24 percent of those working in Mono County live in Mammoth Lakes, followed by Dixon Lane-Meadow Creek (4 percent), and Crowley Lake (4 percent). Another 6 percent live in Bishop and West Bishop cumulatively.

Table 6: Inyo County Commuting Patterns

Where Inyo County Residents Work	#	%	Where Inyo County Employees Live	#	%
Inyo County, CA	4,676	52.9%	Inyo County, CA	4,676	63.7%
Mono County, CA	887	10.0%	Kern County, CA	384	5.2%
Fresno County, CA	431	4.9%	Mono County, CA	343	4.7%
Kern County, CA	313	3.5%	Nye County, NV	246	3.3%
Sacramento County, CA	242	2.7%	Los Angeles County, CA	225	3.1%
Santa Clara County, CA	216	2.4%	Clark County, NV	140	1.9%
Tulare County, CA	194	2.2%	Fresno County, CA	131	1.8%
Monterey County, CA	164	1.9%	San Bernardino County, CA	114	1.6%
San Joaquin County, CA	149	1.7%	Tulare County, CA	98	1.3%
Washoe County, NV	125	1.4%	San Diego County, CA	78	1.1%
All Other Locations	1,450	16.4%	All Other Locations	911	12.4%
Total Commuting Population	**8,847**	**100%**	**Total Commuting Population**	**7,346**	**100%**

Source: US Census, LEHD Data, Accessed 8/2021

Table 7: Mono County Commuting Patterns

Where Mono County Residents Work	#	%	Where Mono County Employees Live	#	%
Mono County, CA	2,896	52.4%	Mono County, CA	2,896	41.7%
Inyo County, CA	343	6.2%	Inyo County, CA	887	12.8%
Fresno County, CA	191	3.5%	Los Angeles County, CA	565	8.1%
Santa Clara County, CA	179	3.2%	San Diego County, CA	297	4.3%
Sacramento County, CA	166	3.0%	Orange County, CA	156	2.2%
Alameda County, CA	142	2.6%	Fresno County, CA	148	2.1%
Monterey County, CA	110	2.0%	Riverside County, CA	126	1.8%
Kern County, CA	102	1.8%	Kern County, CA	108	1.6%
Contra Costa County, CA	100	1.8%	Ventura County, CA	105	1.5%
Los Angeles County, CA	86	1.6%	Santa Clara County, CA	96	1.4%
All Other Locations	1,213	21.9%	All Other Locations	1,569	22.6%
Total Commuting Population	**5,528**	**100%**	**Total Commuting Population**	**6,953**	**100%**

Source: US Census, LEHD Data, Accessed 8/2021

MAJOR ACTIVITY CENTERS

The identification of major activity centers is useful in determining where transportation services might be needed. The region's major activity centers are generally situated in and around Mammoth Lakes and Bishop. Major activity centers in Inyo and Mono County are shown in Table 8, including human service agencies, schools, medical facilities, shopping areas, and popular recreation destination.

FUTURE PLANNED DEVELOPMENTS

Inyo and Mono Counties are made up of rural communities with the exception of Bishop and Mammoth Lakes. With Bishop's urban growth boundaries, there is very little planned in terms of major commercial or residential development within the city. In Mammoth, however, there are a few major developments planned developments due to be completed in the coming decade.

- "The Parcel" is a 25-acre residential development located south of Main Street and west of Laurel Mountain Road. The development will ultimately include 595 units of multifamily residential units of varying heights with mixed commercial uses mixed throughout the planned development.

- The Mammoth Main Lodge Base Redevelopment proposes the development of 36 acres including the construction of 415 residential units, 450 hotel units, and 175,000 square feet of retail, food, and beverage facilities to accommodate seasonal visitors year-round. This project will also include the realignment of Minaret Road and a new transit plaza, thus improving connections between the project area to nearby ski chalets and popular summer destinations such as the Devil's Postpile National Monument, the John Muir Trail, and Red's Meadow.

A new terminal was recently completed at Bishop Airport for United Airlines commercial flights. There were three flights a day throughout the ski season, and then the schedule was reduced beginning in April 2022. Increased flights for the summer season begin in June 2022. Shuttles, rental cars, and public transit serve as ground transportation for those flying into Inyo and Mono Counties.

EXISTING PLANNING DOCUMENTS

California Transportation Plan 2050

The California Transportation Plan 2050 (CTP) was completed in February of 2021 by the Office of State Planning. One of the many goals of the CTP is to provide rural and tribal communities with greater access to jobs and goods through various modes of mobility. The CTP summarizes a broad overview of state demographics, housing, and economic conditions then evaluates roadways, public transportation, active transportation, airports, and goods movements. The most relevant recommended action items for Caltrans to consider moving forward included the following:

- Provide increased internet access to rural communities to allow people to access employment and services to reduce the need for long-distance travel.
- Implement zero emission vehicles to reduce emissions.
- Create streamlined interregional transit fares and transfers.
- Support interlining different types of transit (bus and rail) to reach further distances.
- Evaluate impacts on rural and tribal communities when determining roadway pricing.

Table 8: Major Transit Activity Centers in the ESTA Service Area

	Human Service Agencies & Schools	Shopping & Recreation	Medical
Bishop	Inyo Mono Association for the Handicap (IMHA) Inyo County Health and Human Services Kern Regional Center Great Steps Ahead Cerro Coso College Bishop Elementary Home Street Middle School Bishop Union High School Palisade Glacier High School	Vons Rite Aid Paiute Palace Casino Senior Center Highlands Mobile Home Park Sunrise Mobile Home Park	Northern Inyo Hospital Rural Health Center Toiyabe Indian Health/Dental Toiyabe Dialysis
Lone Pine	Inyo County Health and Human Services Indian Head Start Lo-Inyo Elementary Lone Pine High School Sierra Alt. Learning Academy	Senior Center Boulder Creek Mt. Whitney Trail	Southern Inyo Hospital Toiyabe Indian Health Project
Mammoth Lakes	Mono County Health and Human Services Mammoth Elementary School Mammoth Middle School Mammoth High School Sierra High School Mammoth High School ILC Kern Regional Center Great Steps Ahead Cerro Coso College	Vons The Village at Mammoth Mammoth Mountain Ski Area Whitmore pool June Lakes Ski Area Reds Meadow Lakes Basin	Mammoth Hospital Mammoth Dental Sierra Park Clinic
Walker Area	MCHHS Facilities Coleville High School Antelope Elementary School Edna Beaman Elementary School Lee Vining High School Lee Vining Elementary School Bridgeport Elementary School	Senior Center Topaz Lodge Antelope Valley Park	Topaz Ranch Medical Clinic Toiyabe Indian Health Project/Camp Bridgeport Clinic
Out of County			Loma Linda medical facilities (San Bernardino) Carson Valley Medical Center VA Medical Center Minden, Carson City and Reno

Source: Inyo Mono County Public Transit Human Services Transportation Plan, LSC

California Freight Mobility Plan (2020)

The *California Freight Mobility Plan* (CFMP) was completed by the California State Transportation Agency (CalSTA) in March of 2020. The CFMP was completed to meet the freight and funding standards of the Fixing America's Surface Transportation (FAST) Act. The CFMP identifies visions, goals, and objectives related to being the most extensive, environmentally sustainable, highest capacity, and technologically advanced multimodal freight transportation system in the United States. With this in mind, the following seven goals are identified:

- *Multimodal Mobility* through strategic investments.

- *Economic Prosperity* through growth in economic competitiveness.
- *Environmental Stewardship* through strategies that reduce avoid and mitigate environmental impacts.
- *Healthy Communities* by mitigating negative impacts caused by goods movement.
- *Safety and Resiliency* through reducing freight-related deaths and improving system infrastructure.
- *Asset Management* by using cost beneficial treatments.
- *Connectivity and Accessibility* through the provision of transportation choices.

Inyo and Mono Counties are within Caltrans District 9 and categorized to be within the Central Sierra Region. US 395 provides lifeline service and accessibility for rural communities and for interregional and interstate movement of people, goods, and recreational travel. Approximately 60 percent of the annual average daily traffic (AADT) is attributed to recreational activities and 20 percent is attributed to goods movement.

2020 Interregional Transportation Improvement Program

The Interregional Transportation Improvement Program (ITIP) improves interregional mobility for people and goods throughout California along highway and passenger rail corridors of importance. These strategic corridors create the transportation network that connects rural communities to large urban areas. The ITIP is a program of projects funded through the State Transportation Improvement Program (STIP) that obtains funding primarily through the per-gallon State tax on gasoline.

The ITIP identifies two major projects occurring within Inyo and Mono Counties along what is referred to as the High Desert – Eastern Sierras -Central Nevada Corridor. The corridor is essential in the movement of goods between Los Angeles, the eastern Sierra, and central Nevada. The Olancha and Cartago Expressway project will provide a four-lane divided highway between Olancha Creek and Cartago and is funded in partnership between Inyo, Mono, and Kern Counties. The project is expected to be completed in FY 2021-22. The Freeman Gulch Widening project will add passing lanes and a median to relieve congestion along SR 14.

2018 Inyo County Regional Transportation Improvement Program

The *Regional Transportation Improvement Program* (RTIP) is a summary of local road, highway, transit, and active transportation projects that a region plans to fund and implement. The program of projects in the RTIP is a selection of projects in the Regional Transportation Plan (RTP), discussed in detail below.

The Inyo County RTIP summarized the completion of two projects identified in the previous RTIP; the Dehy Park Improvement Project and the Ed Powers Road Bicycle Lanes Project. The Dehy Park Improvement Project provided pedestrian improvements to Dehy Park and the Ed Powers Road Bicycle Lane project provided Class II bicycle lanes to Ed Powers Road. The 2018 RTIP identified the following five projects:

1. Olancha /Cartago Four Lane Expressway – Construction of a four-lane divided highway between Olancha Creek and Cartago.
2. Freeman Gulch Segment 2 Expressway – Construction of a divided highway segment with passing lanes.
3. South Lake Road Reconstruction – Repaving South Lake Road from SR 168 to South Lake.
4. Lone Pine Town Rehabilitation Improvements – Implementation of bicycle and pedestrian access along the following streets: East Mountain View Street, North and South Brewery Street, North and South Mt. Whitney Drive, East Post Street, West Post Street, Tim Holt Street, North and South Lone Pine Avenue, North and South Lake View Street, and East Muir Street.
5. East Line Street Bridge – Reconstruction of bridge to meet proper standards while also undergrounding utilities and implementing a gutter and sidewalk on each side of the bridge.

2019 Inyo County Regional Transportation Plan Update

The Inyo County 2019 RTP provides a coordinated, 20-year vision of the regionally significant transportation improvements and policies needed to efficiently move goods and people in the region. As per the Regional Transportation Planning Agency (RTPA), the Inyo County Local Transportation Commission (ICLTC) is required by California law to adopt and submit an approved RTP to the California Transportation Commission (CTC) every four years. The RTP identifies major issues and needs as it relates to the following: roadways and bridges, transit, bicycles and pedestrians, aviation, and goods movement.

In addition to the top priority projects listed in the RTIP, the following includes a few of the second priority roads needing rehabilitation and reconstruction as described in the RTP:

- Trona-Wildrose Road
- Sawmill Road
- Poleta Road
- Glacier Lodge Road
- Onion Valley Road
- Warren Street
- Third Street
- May Street
- Willow Street
- Iris Street
- Clarke Street

The construction of a Visitors Use Facility at Death Valley National Park along SR 190 was also included as a second priority project for the county.

2015 Mono County Regional Transportation Plan

The Mono County RTP provides an overview of existing conditions and a needs assessment followed by regional, community, action, and financial policy elements. The plan outlined major transportation directives in Mono County including the following:

- Plan and implement a transportation and circulation system that is responsive to the County's economic needs and fiscal constraints.
- Develop and enhance the transportation and circulation system in a manner that protects the county's natural and scenic resources and that maximizes opportunities for viewing those resources.
- Plan and implement a transportation and circulation system that provides for livable communities, active transportation, and complete streets, while maintaining efficient traffic flow, emergency access and alternative transportation modes to the automobile.

The plan also identifies major needs and issues for the region including increasing transit services at local, regional, and interregional levels in order to improve air quality, reduce congestion, and provide alternative methods of moving people and goods to and through the county. The Action Element provides the following recommendations to help address the transportation needs of the region:

- Implementing the transit-focused policies established in ESTA's 2015 SRTP and the Town of Mammoth Lakes Transit Plan.
- Promoting and supporting Mammoth Lakes Transit Plan and the Revised Transportation and Circulation Element of the Mammoth Lakes General Plan policies that intend to increase transit ridership and reduce automobile usage including expansion of winter transit services (peak period) for skiers and commuters, airport shuttle service, increased community transit services, year-round fixed route services, and Dial-a-Ride services in Mammoth.
- Continuing participation in the Yosemite Area Regional Transportation System (YARTS), in the intercity transit planning process with Inyo and Kern Counties and Caltrans District 9, and in the Eastern California Transportation Planning Partnership, which is a collaborative regional transportation planning process with Kern, Inyo, and San Bernardino Counties.

2015 ESTA Short Range Transit Plan

A SRTP was most recently completed in 2015. After reviewing the study area and conducting public outreach, the 2015 SRTP explored a variety of alternatives to be recommended by the final plan. The recommended service plan includes the following:

- US 395 North and South weekday service year-round.
- US 395 North and South Saturday service during the summer season.
- Expansion of Lone Pine Express with northbound afternoon service.
- Later evening services along Mammoth Lakes routes during the summer and winter season.
- Dial-a-Ride extension of services to evenings to serve Eastern Sierra College students.

2014 Inyo and Mono Counties Coordinated Public Transit – Human Services Transportation Plan Update

The Coordinated Public Transit and Human Services Transportation Plan is intended to identify existing transit services being provided amongst social service providers while exploring ways in which to combine and coordinate these services. Major barriers to coordinating services include regional geography, the need for client assistance during a trip, and staff time necessary to apply for grant funding. Duplicative services are common amongst rural towns including multiple agency vans providing transportation, vehicles that lay idle for a good portion of the week, and multiple contracts for vehicle maintenance.

Coordinating strategies recommended by the plan include improving mobility options for Inyo and Mono residents to get to medical appointments outside of regular public transit hours, expanding services to Cerro Coso Community College, and providing stronger connections for local employees to get to their places of employment.

General Plans

A General Plan serves as the foundation of a regions land-use and transportation planning. It provides a vision for the coming 10 to 20 years within an area and strives to provide objectives, goals, and policies that support this vision. Typically, implementation programs are also identified in General Plans as well. The following summarizes the goals, objectives, and policies within the Inyo and Mono County area as they relate to mobility, circulation, and transportation.

Inyo County

The *Inyo County General Plan* was completed in 2001. Its Circulation Element included two major policies: provide a transportation system that is safe, efficient, and comfortable, which meets the needs of people and goods and enhances the lifestyle of the County's residents; and improve capacity on state highways and routes within and surrounding Inyo County. The following policies are most supported by this CHSP and SRTP effort:

- Policy RH-1.8 - Priority to Efficiency Projects Give priority to transportation projects designed to improve the efficiency, safety, and quality of existing facilities

- Policy RH-1.9 - Plan Comprehensive Transportation System Continually plan, prioritize, design, and develop a comprehensive transportation system in cooperative partnership between the County, City of Bishop, state officials, the Local Transportation Commission (LTC), public and private groups, and other interested entities

Mono County

The *Mono County General Plan* was completed in 1992 to establish policies that guide future growth, development, and conservation of natural resources within the county. It included a Circulation Element

with goals mostly related to expanding broadband and internet services to improve access to transportation information as well as the continued development and maintenance of county facilities and community service infrastructure. Goals and policies directly relating to transportation and transit were identified in the 1992 RTP, however, this has since been updated as discussed in the RTP above.

City of Bishop

The City of Bishop completed the Mobility Element of their General Plan in 2012. In an effort to define how the City will serve the mobility needs of residents, businesses, and visitors while protecting its environmental, economic, and natural resources, the element brought forth the following two major goals and eight supporting policies relating to transportation and transit:

- Goal 1 - Provide a balanced transportation system that moves people and goods throughout the City efficiently, enhances livability and economic viability, and preserves residential neighborhoods and other environmental resources.
    - Policy 1.1 Promote accessible transportation services and facilities that are responsive to the needs of residents, businesses, and visitors.
    - Policy 1.2 Facilitate future plans and programs for enhancing mobility while preserving the existing character of the City.
    - Policy 1.3 Encourage transportation strategies that achieve energy conservation, reduce air pollution, and protect water and other environmental resources.
    - Policy 1.4 Reduce the need for vehicular travel by facilitating non-auto modes of travel.
- Goal 3 - Facilitate public transportation services and facilities that enhance accessibility for residents and visitors, and serve the young, aged, handicapped and disadvantaged.
    - Policy 3.1 Encourage transit ridership between Bishop and the surrounding communities.
    - Policy 3.2 Enhance local transit accessibility for residents and visitors.
    - Policy 3.3 Support private services that provide additional mobility opportunities for residents and visitors.
    - Policy 3.4 Ensure that public transportation in the City is responsive to the needs of the young, aged, handicapped and disadvantaged.

Town of Mammoth Lakes

The Town of Mammoth Lakes completed and adopted their Mobility Element in 2016. The element's purpose is to achieve a progressive and comprehensive multimodal transportation system that serves the needs of residents, employees, and visitors in a way that is connected, accessible, and safe. The document envisions a framework that protects the community's "triple bottom line "social, economic, and natural capital through the prioritization of "feet first" transportation that emphasizes non-motorized and public transportation modes of travel over vehicle use. The element emphasized the following two goals to carry out their community objectives:

- Goal M.2. - Manage and invest in the transportation system in ways that prioritize flexibility and cost effectiveness and improve the user experience.

- Goal M.3. - Enhance small town community character through the design of the transportation system.

Unmet Needs (FY 2018-19 to FY 2020-21)

Each fiscal year, the Transportation Development Act requires that a Local Transportation Commission (LTC) hosts a hearing to inquire about what unmet transit needs exist within their communities. An "Unmet Transit Need" exists if a member of the public is unable to transport themselves from one location to another within their jurisdiction. This Unmet Transit Need is "reasonable to meet" if it meets the following criteria:

- A service can be provided which meets a minimum farebox ratio of 10% of operating costs; and
- It is transit service for essential intra-county purposes which are defined as medical or dental services, shopping, employment, personal business, or social service appointments; or,
- It is a transit service for essential inter-county purposes which are defined as medical or dental services or social service appointments not available in this county or the out-of-county destination is the closest location where the services are available to the origin of the trip; and,
- The origin and/or destination of the trip is within two miles of the established area of operation or cohesive community.

Inyo LTC

Over the past three fiscal years, the Inyo LTC identified two unmet needs that were also reasonable to meet. This included providing transit service between Lone Pine and Keeler and providing a DAR service near White Mountain Research station. Other comments received at these hearings encompassed the extension of Bishop DAR service hours, an Owens River/Poleta Road service, and trailhead services to Whitney Portal, Onion Valley, and Glacier Lodge.

Mono LTC

Over the past three fiscal years, the Mono LTC identified six unmet needs that were also reasonable to meet. These unmet needs for future consideration included extended service between Bridgeport to Gardnerville route to Carson City, lifeline services for June Lake residents, weekly service to Mammoth Lakes from June Lake, service to Mammoth Lakes from Lee Vining, extended mid-town Bishop stop to express route, and the provision of Spanish language services. Other comments received that were deemed either not an unmet need or unreasonable to meet included providing an employee and visitor service between Mammoth and June Mountain during winter operation, adding a bus stop at the Sonora Junction along US 395 and deviate the 395 to serve June Lake.

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Chapter 3

SUMMARY OF EXISTING TRANSIT SERVICES

ESTA is the primary public transit operator serving both Inyo and Mono Counties while also providing connections to the national intercity transportation network in Reno and Lancaster. Inyo and Mono Counties also have a variety of human service agencies which provide transportation for clients.

EASTERN SIERRA TRANSIT AUTHORITY (ESTA)

ESTA was formed through a Joint Powers Agreement (JPA) between Inyo County, Mono County, City of Bishop, and Town of Mammoth Lakes in 2006. The service was formerly known as "Inyo Mono Transit" (a division of the Inyo County Government). ESTA is directed and managed by an eight-member Board of Directors, comprised of two elected representatives from each of the four jurisdictions. ESTA is a separate legal entity with a staff of 41 drivers, 4 dispatchers, 4 utility workers, 2 operations supervisors, 1 executive director, and 3 administrative positions. Some services, such as Auditor-Controller and Treasurer, are contracted with Inyo County. Per the JPA, each participating entity has designated ESTA its agent for applying for and receiving Transportation Development Act funds for public transit purposes. ESTA also serves as the Consolidated Transportation Services Agency (CTSA) for both counties.

As a transit operator, ESTA provides a variety of demand-response, fixed route, and deviated-fixed route services to multiple communities in Inyo and Mono County as well as connections to intercity transportation services in urban areas such as Reno and Carson City, Nevada. ESTA's transit services are depicted in Figures 9, 10, and 11 and discussed in detail below.

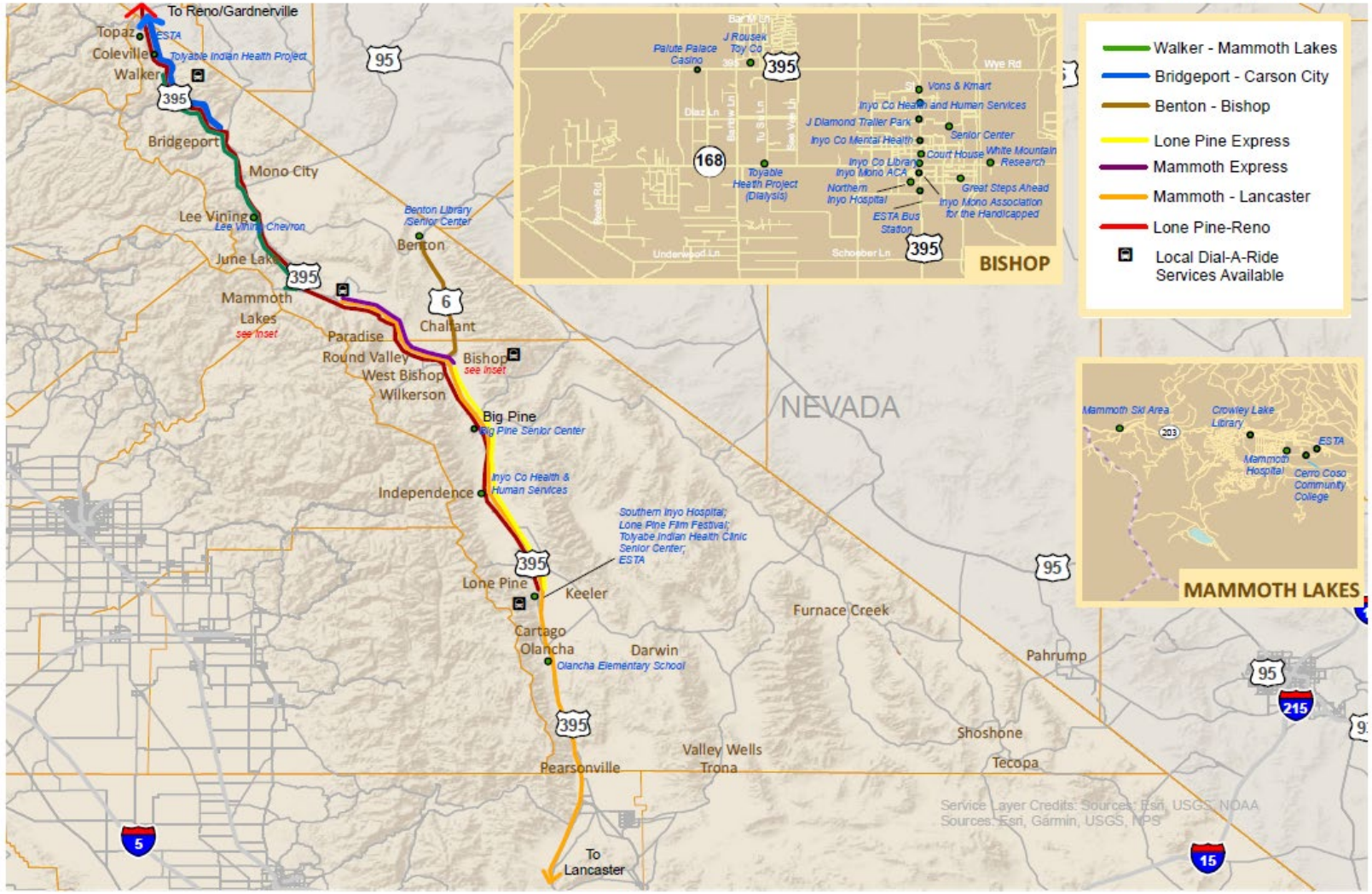
395 ROUTES

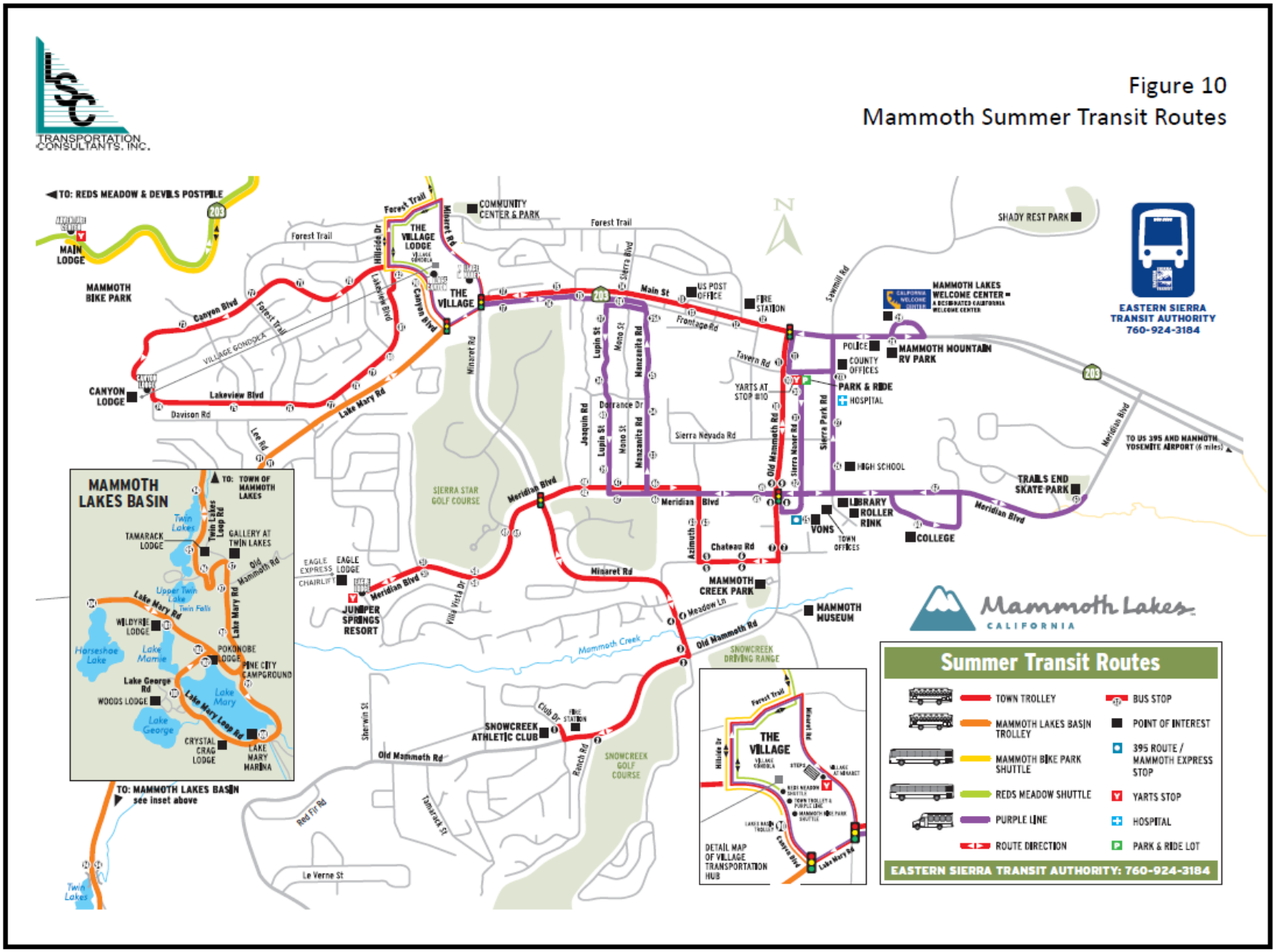
ESTA operates two intercity routes through the Federal Transit Administration (FTA) 5311(f) Rural Transit and Intercity Bus grant program. In addition to the intercity routes, ESTA operates two commuter routes along US 395 with mid-day trips available.

Lone Pine to Reno/Sparks (395 North)

ESTA provides connections to the national intercity bus network and the international airport in Reno, Nevada with one round trip between Lone Pine and Reno, Monday through Friday of each week. The northbound trip departs Lone Pine at 6:10 AM and arrives in Reno at 12:10 PM, and the southbound trip departs Reno at 1:30 PM and arrives in Lone Pine at 7:40 PM. The communities served along US 395 include Independence, Big Pine, Bishop, Crowley Lake, Mammoth Lakes, Lee Vining, Bridgeport, Walker, Coleville, Gardnerville, and Carson City. With a 24-hour reservation, service is also available to Gardnerville, Coleville, Aberdeen, Tom's Place, and June Lake. Fares range from $3.50 - $59.00 depending on the origin and destination of the trip.

Figure 9
ESTA Transit Services and Activity Centers




TRANSPORTATION CONSULTANTS, INC.
Figure 10
Mammoth Summer Transit Routes
TO: REDS MEADOW & DEVILS POSTPILE
MAIN LODGE
MAMMOTH BIKE PARK
CANYON LODGE
THE VILLAGE LODGE
THE VILLAGE
COMMUNITY CENTER & PARK
SHADY REST PARK
US POST OFFICE
FIRE STATION
MAMMOTH LAKES WELCOME CENTER
EASTERN SIERRA TRANSIT AUTHORITY
760-924-3184
POLICE
COUNTY OFFICES
PARK & RIDE
HOSPITAL
MAMMOTH MOUNTAIN RV PARK
YARTS AT STOP #10
HIGH SCHOOL
TRAILS END SKATE PARK
LIBRARY
ROLLER RINK
VONS
TOWN OFFICES
COLLEGE
TO US 395 AND MAMMOTH YOSEMITE AIRPORT (6 miles)
SIERRA STAR GOLF COURSE
EAGLE EXPRESS CHAIRLIFT
EAGLE LODGE
JUNIPER SPRINGS RESORT
MAMMOTH CREEK PARK
MAMMOTH MUSEUM
SNOWCREEK DRIVING RANGE
SNOWCREEK ATHLETIC CLUB
SNOWCREEK GOLF COURSE
MAMMOTH LAKES BASIN
TO: TOWN OF MAMMOTH LAKES
TAMARACK LODGE
GALLERY AT TWIN LAKES
WILDRYE LODGE
POKONOBE LODGE
PINE CITY CAMPGROUND
WOODS LODGE
CRYSTAL CRAG LODGE
LAKE MARY MARINA
TO: MAMMOTH LAKES BASIN see inset above
DETAIL MAP OF VILLAGE TRANSPORTATION HUB
Mammoth Lakes CALIFORNIA
Summer Transit Routes
TOWN TROLLEY
MAMMOTH LAKES BASIN TROLLEY
MAMMOTH BIKE PARK SHUTTLE
REDS MEADOW SHUTTLE
PURPLE LINE
ROUTE DIRECTION
BUS STOP
POINT OF INTEREST
395 ROUTE / MAMMOTH EXPRESS STOP
YARTS STOP
HOSPITAL
PARK & RIDE LOT
EASTERN SIERRA TRANSIT AUTHORITY: 760-924-3184

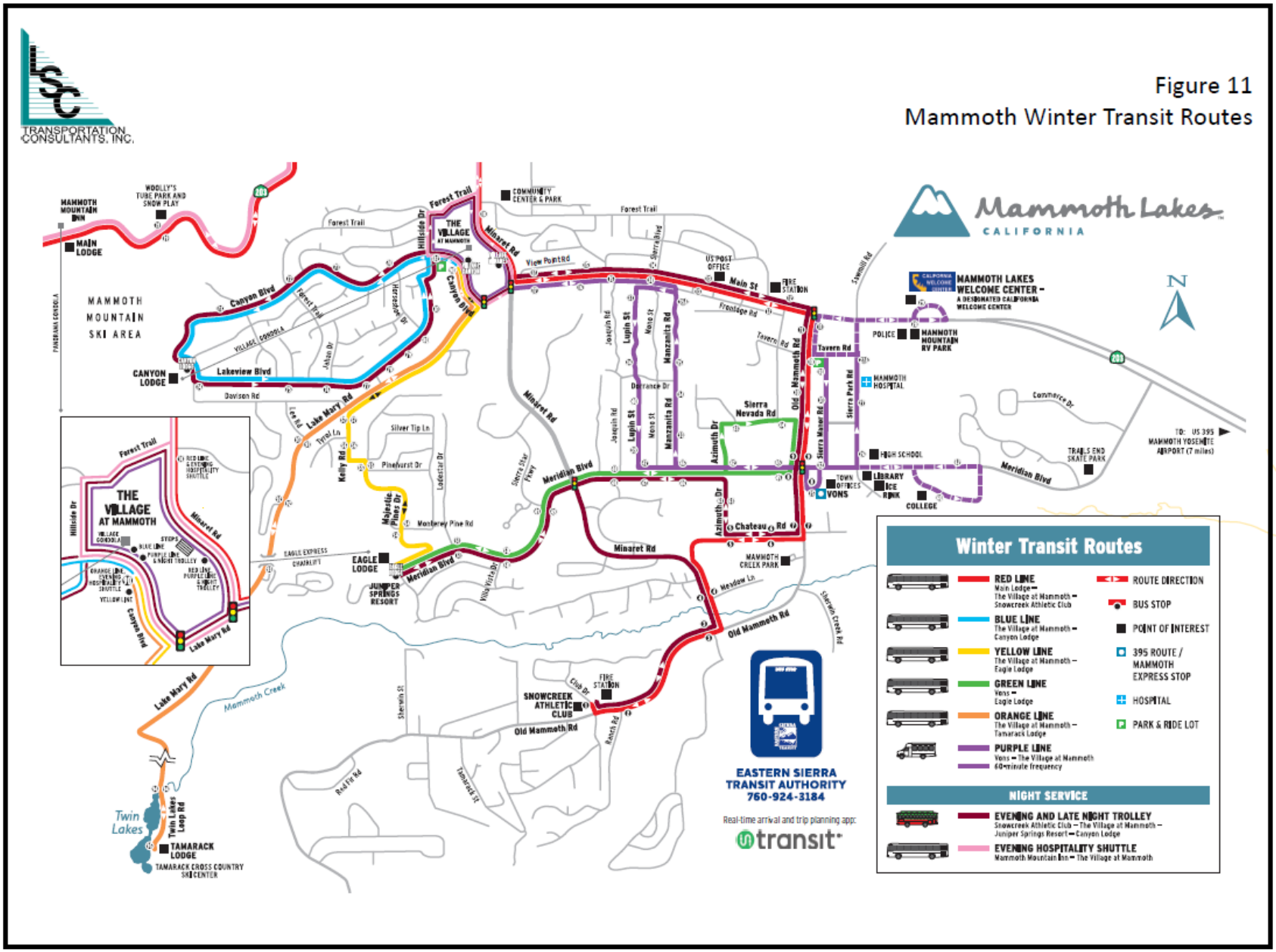


Figure 11
Mammoth Winter Transit Routes
TRANSPORTATION CONSULTANTS, INC.
Mammoth Lakes
CALIFORNIA
MAMMOTH MOUNTAIN SKI AREA
THE VILLAGE AT MAMMOTH
MAMMOTH MOUNTAIN INN
MAIN LODGE
WOOLLY'S TUBE PARK AND SNOW PLAY
CANYON LODGE
EAGLE LODGE
JUNIPER SPRINGS RESORT
SNOWCREEK ATHLETIC CLUB
TAMARACK LODGE
TAMARACK CROSS COUNTRY SKI CENTER
COMMUNITY CENTER & PARK
US POST OFFICE
FIRE STATION
MAMMOTH LAKES WELCOME CENTER – A DESIGNATED CALIFORNIA WELCOME CENTER
POLICE
MAMMOTH MOUNTAIN RV PARK
MAMMOTH HOSPITAL
HIGH SCHOOL
TOWN OFFICES
LIBRARY
ICE RINK
VONS
COLLEGE
TRAILS END SKATE PARK
MAMMOTH CREEK PARK
TO: US 395 MAMMOTH YOSEMITE AIRPORT (7 miles)
Forest Trail
Canyon Blvd
Lakeview Blvd
Davison Rd
Lake Mary Rd
Minaret Rd
Meridian Blvd
Old Mammoth Rd
Chateau Rd
Azimuth Dr
Sierra Nevada Rd
Tavern Rd
Main St
Frontage Rd
View Point Rd
Hillside Dr
Joaquin Rd
Lupin St
Manzanita Rd
Meadow Ln
Monterey Pine Rd
Pinefurst Dr
Silver Tip Ln
Commerce Dr
Sierra Park Rd
Old Mammoth Rd
Twin Lakes
Mammoth Creek
EASTERN SIERRA TRANSIT AUTHORITY
760-924-3184
Real-time arrival and trip planning app:
transit
Winter Transit Routes
RED LINE
Main Lodge – The Village at Mammoth – Snowcreek Athletic Club
BLUE LINE
The Village at Mammoth – Canyon Lodge
YELLOW LINE
The Village at Mammoth – Eagle Lodge
GREEN LINE
Vons – Eagle Lodge
ORANGE LINE
The Village at Mammoth – Tamarack Lodge
PURPLE LINE
Vons – The Village at Mammoth
60-minute frequency
ROUTE DIRECTION
BUS STOP
POINT OF INTEREST
395 ROUTE / MAMMOTH EXPRESS STOP
HOSPITAL
PARK & RIDE LOT
NIGHT SERVICE
EVENING AND LATE NIGHT TROLLEY
Snowcreek Athletic Club – The Village at Mammoth – Juniper Springs Resort – Canyon Lodge
EVENING HOSPITALITY SHUTTLE
Mammoth Mountain Inn – The Village at Mammoth

Mammoth Lakes to Lancaster (395 South)

Intercity connections to the Metrolink rail station in Lancaster (which provides service into the Los Angeles area) are provided Monday through Friday. The bus departs Mammoth Lakes at 7:50 AM and arrives in Lancaster at 12:45 PM. The return northbound trip departs Lancaster at 2:00 PM and arrives in Mammoth Lakes at 7:00 PM. This route serves the communities of Mammoth Lakes, Crowley Lake, Bishop, Big Pine, Independence, Lone Pine, Inyokern, Mojave and Lancaster. Optional service is provided to Coso Junction, Olancha, Pearsonville, Aberdeen, and Tom's Place with a 24-hour advance reservation. Fares range from $2.00-$39.00 depending on the origin and destination of the trip.

Mammoth Express

This route completes four round trips between Bishop and Mammoth, five days a week between 6:45 AM and 7:00 PM. This route overlaps with the Mammoth to Lancaster route. Stops are made in Tom's Place and Crowley Lake. Mammoth Express fares range from $3.00-$7.00 depending on the length of the trip.

Lone Pine Express

This service travels between Lone Pine and Bishop three times a day, five days a week. This route shares a roundtrip with the Lone Pine to Reno route when it is in service. Schedules are designed to accommodate commuters living in Bishop and working at county offices in Independence as well as southern Inyo County residents working in Bishop. The route includes stops in Independence, Aberdeen, and Big Pine. A mid-day run allows for additional flexibility for non-commuting passengers in need of social services, medical, shopping and lifeline services. Fares range from $3.50-$7.25 depending on the length of the trip.

TOWN TO TOWN ROUTES

An important sector of ESTA services is transportation between the smaller Inyo and Mono communities for essential medical appointments, shopping, or other purposes.

Benton – Bishop

Lifeline service is provided between Benton and Bishop along SR 6 on Tuesdays and Fridays with stops in Chalfant and Hamill Valley by reservation. The southbound route leaves Benton at 8:25 AM and arrives in Bishop at 9:30 AM. The return northbound route departs Bishop at 2:30 and arrives in Benton at 3:30 PM. Regular fares range from $3.00-$6.00.

Walker – Mammoth

The Walker to Mammoth Lakes service runs on Tuesdays by reservation only, making stops in Bridgeport, Mono City, Lee Vining, and June Lake. The schedule depends on ridership needs, but typically, departures from Walker may occur as early as 8:30 AM and return trips may run as late as 3:15 PM from Mammoth

Lakes. Regular adult fares vary between $2.50 and $14.00 depending on length of trip. Discounted fares vary between $2.00 and $12.00.

Bridgeport – Carson City

This route runs weekly on Wednesday between Bridgeport and Carson City, with stops in Walker, Gardnerville, and Coleville. The northbound route leaves Bridgeport at 11:00 AM, arrives in Gardnerville at 1:00 PM, and continues on to Carson City at passengers' request. The southbound route departs from either Carson City or Gardnerville no later than 4:30 PM and returns to Bridgeport. Regular fares range from $2.50-$13.00.

MAMMOTH LAKES FIXED ROUTES

ESTA operates a variety of seasonal and year-round transit services within Mammoth Lakes. In addition to fixed route services, two seasonal trolley services are operated during the summer season and one trolley service is operated during the winter season. These services and routes are described in detail below.

Purple Route

This year-round route runs along SR 203, Sierra Park Road, Manzanita Road, Lupin Street, Minaret, Forest Trail, Hillside Drive, Canyon Boulevard, with several notable stops in between, such as: Vons, Mammoth High School, Mammoth Hospital, Mammoth RV Park, Rite Aid, and The Village. The Purple Line also stops near the 395 Route / Mammoth Express stop at 1 Sierra Park Road, the YARTS stop, and the Park & Ride lot. This line runs every 30 minutes between the hours of 7:00 AM and 6:00 PM.

Mammoth Mountain Ski Area (MMSA) Winter Routes

During the winter season, ESTA contracts with Mammoth Mountain Ski Area (MMSA) for the operation of the winter ski shuttles. Generally, these routes operate seven days per week from late November to late May (depending on the winter).

- Red Line – This route runs between the Snowcreek Athletic Club and the Main Lodge, with stops serving Vons, Main Street, and The Village. The Red Line also stops near the 395 Route / Mammoth Express stop and the Park & Ride lot. During winter months, this route runs every 20 minutes from 7:00 AM to 5:30 PM.

- Blue Line – This route runs along Canyon Boulevard and Lakeview Boulevard between The Village and Canyon Lodge. The service runs every 15 minutes past the hour from 7:05 AM to 5:20 PM.

- Green Line – This shuttle runs between Vons and Juniper Springs Resorts, or Eagle Lodge, every 15 minutes between the hours of 7:30 AM and 5:30 PM.

- Yellow Line - This shuttle runs between The Village and Eagle Lodge every 20 minutes between the hours of 7:30 AM and 5:30 PM.

Summer Town Trolley

This route operates daily between 7:00 AM and 10:00 PM between May 28th and November 19th between Snowcreek Athletic Club, the Sierra Center Mall, The Village and Canyon Lodge. The Mammoth Lakes Trolley also stops near the 395 Route / Mammoth Express stop and the Park & Ride lot.

Winter Town Trolley

During the winter, the trolley runs a similar route to the Summer Town Trolley between 5:40 PM to 2:00 AM, seven days a week. During the shoulder seasons, the trolley runs from 9:00 AM to 10:00 PM.

Lakes Basin Trolley

This free summer service operates between May 18th and September 29th and runs from The Village, along Lake Mary Road with many stops at points of interest among the lakes and trails in the area. The route is available every half-hour or every hour (depending on the date) from 9:00 AM to 6:00 PM. The Lakes Basin Trolley is primarily used for recreation purposes, particularly cyclists who wish to ride the bus up the hill and bike back down to town. Tour guides are also on duty from 12:00 PM to 6:00 PM Friday, Saturday, and Sunday, plus additional holiday days from Memorial Day Weekend to Labor Day Weekend, 2021 to share historic places and important events that have occurred along the route.

SEASONAL, SPECIAL EVENT, AND MEDICAL SERVICES

Reds Meadow Shuttle

ESTA operates the Reds Meadow Shuttle from Mammoth Lakes to Reds Meadow and Devils Postpile under a special use permit with the US Forest Service. The service typically runs Memorial Day weekend (weather dependent), reopens mid-June, and ends in early September. During peak summer (late June through September), the Shuttle departs the Mammoth Mountain Lodge every 45 minutes between 7:30 AM and 9:45 AM, every 20 minutes between 10:00 AM and 4:00 PM, and then every 45 minutes between 4:45 PM and 7:00 PM. In 2021, a temporary fare increase was in effect ($15.00 for adults and $7.00 for children). These higher rates will remain in effect, but are currently pending public meetings, partner, and board approval. Season passes and 3-Day passes are available at a reduced fare. (Note that in 2021, the lack of available drivers resulted in a lower *frequency of service.)*

Bishop Creek Shuttle

The Bishop Creek Shuttle provides service between Bishop and Bishop Creek Recreation Area twice daily, seven days a week. It typically operates between June and Labor Day weekend from 8:00 AM to 5:45 PM. The route includes scheduled stops at the Bishop Vons, Elks Park, South Lake, and Lake Sabrina.

Specials Event Charters

ESTA also operates transportation for special events such as Bluesapalooza and for human service groups which are exempt from FTA Charter rules. Every Memorial Day weekend, ESTA also provides additional transportation for the Mule Days event in Bishop. The operational data for this event is tracked as a separate item within ESTA's monthly and annual reports.

NEMT (Non-Emergency Medical Transportation)

This program provides gas mileage reimbursement for transportation to and from non-emergency medical services. This service is available to residents of Inyo or Mono County who are unable to access transportation otherwise due to disability, age, or economic inability. Each trip must begin or end in Inyo or Mono County. This service offers reimbursement for trips up to 300 total miles. Gas is reimbursed at the current IRS reimbursement rate, which was 17 cents per mile for 2020 and 16 cents per mile in 2021.

DIAL-A-RIDE (DAR) SERVICES

ESTA provides demand response transit service in several Inyo and Mono County communities. Similar to fixed route services, discounted fares are available to seniors, youth under 16, and disabled riders and depending on the distance travelled, there are 30-day (monthly) and 10-ride punch passes available.

- Lone Pine DAR – Door to door service is provided in Lone Pine to the general public between 7:30 AM and 3:30 PM, Monday through Friday. Service to/from the Keeler area is available on Tuesdays from 8:00 AM to 3:00 PM. Zone 2 fare ($4.20 Adult/$3.60 Discount). Trips must be scheduled the Monday prior to travel and no same day requests will be taken. The general public one-way fare is $3.00 for most of the community of Lone Pine (Zone 1) and $4.20 for outlying areas such as the Alabama Hills (Zone 2).

- Walker DAR – Door to door transit service is provided to residents of the Antelope Valley from Walker to Topaz from 8:00 AM to 4:00 PM on Monday, Wednesday, Thursday, and Friday. Regular fares range from $3.00-$6.50 with discounted fares ranging between $2.40 to $5.50 depending on start and end destination.

- Mammoth DAR – General Public DAR is offered in Mammoth Lakes from 8:00 AM to 6:00 PM, Monday through Friday. ADA complementary paratransit is available during the service hours of the fixed route when DAR is not available. Fares range from $2.40-$4.20 with free fare for people riding with disabilities.

- Bishop DAR – Door to door DAR service is provided to the general public in Bishop. Service is available from 7:00 AM to 5:30 PM Monday through Thursday, 7:00 AM to 2:00 AM on Fridays, 8:30 AM to 2:00 AM on Saturday, and 8:00 AM to 1:00 PM on Sunday. The evening service after 6:00 PM on Friday and Saturday nights is called "Nite Rider". Operational data for the Nite Rider is tracked separately from the general Bishop DAR service in the following analysis. There are two

zones identified within Bishop with Zone 1 including the central portion of town with Zone 2 including the most eastern and western communities of Bishop. The one-way general public fare is $3.00 in the core Bishop area and $4.20 per trip to outlying areas such as Cerro Coso College, Wilkerson, and Keogh Hot Springs.

ESTA has established checkpoint DAR stops at Vons, Paiute Palace Casino, and Josephs Market at various times during daytime hours. Passengers who board at checkpoints at the designated time will be taken to their desired destination. Checkpoint passengers receive a one-dollar discount on the fare.

OTHER REGIONAL TRANSIT SERVICES

Other transit services in the Inyo and Mono County areas not operated by ESTA include the following regional transportation services.

Yosemite Area Regional Transit System (YARTS)

The YARTS bus service provides transportation to Yosemite National Park from gateway communities on both the east and west side of the Sierras. In Mono County, YARTS operates a route from Mammoth Lakes, June Mountain, and Lee Vining to Tuolumne Meadows and Yosemite Valley along US 395 and SR 120 primarily for tourists. Two runs provide service all the way to Yosemite Valley while an additional two runs funded by the National Park Service travel only as far as Tuolumne Meadows.

The Mammoth to Yosemite YARTS route typically operates daily between the Mammoth Mountain Inn to the Yosemite Visitor Center from June 15th through October 15th. In the months of June, September, and October, the route leaves Mammoth Mountain Inn at 8:30 AM, arriving at the Yosemite Visitor Center at 12:06 PM. During the months of July and August (peak season) a second route departs Mammoth at 6:45 AM, arriving in Yosemite at 10:21 AM. Visitors can then depart Yosemite at 5:00 PM, arriving in Mammoth 8:45 PM. During the months of July and August, an extra route leaves Yosemite at 2:30 PM and arrives in Mammoth at 6:51 PM. Stops between both points include Mammoth Village, June Lake Junction 158/395, and Lee Vining (Mono Basin Visitor Center).

The morning YARTS run to Yosemite Valley has a timed connection with ESTA 395 North route in Mammoth Lakes in the morning. This allows for a public transit trip from Lone Pine to Yosemite Valley in one day. However, visitors leaving Yosemite Valley headed for Lone Pine would need to overnight in Mammoth before catching the next ESTA bus to Lone Pine.

YARTS services on the western side of the Sierras travel as far as Sonora along State Route (SR) 120 and Merced along SR 140 where connections to other intercity transportation services are possible. As such, hikers have the option to make point to point trips and fly into the Fresno airport on the west side of the Sierras and fly out of Reno. YARTS is an Amtrak Thruway contractor and therefore provides Amtrak ticketing service at all the destinations that YARTS serves. Regular one-way fares range from $5.00-$52.00, depending on the Origin – Destination of the trip. Reduced fares are available for seniors, children 12 and under, and persons with disabilities.

Jump Around Carson (JAC)

Jump Around Carson is a local public transit system servicing Carson City, Nevada. The service is governed by the Carson City Regional Transportation Commission. JAC offers fixed routes to popular destinations, such as medical facilities, schools, shopping, and recreational areas. An additional curb-to-curb program called JAC Assist is available to eligible persons with disabilities. Regular one-way fares on the fixed routes are $1.00, with reduced $0.50 fares available to youth, seniors, and disabled persons.

Washoe Regional Transportation Commission (RTC) Ride

The Washoe RTC operates "Ride", the main local public transit system servicing Reno, Sparks, and the unincorporated areas of Washoe County. The service offers fixed routes, an ACCESS program for disabled riders, and a vanpool option. Reduced fares are available to youth, seniors, and disabled persons.

City of Ridgecrest Transit

The City of Ridgecrest provides fixed routes and paratransit through the Ridgerunner Transit System. The Ridgerunner includes service in the City of Ridgecrest, as well as longer Kern County Routes to Inyokern and Randsburg with connections to ESTA occurring along its Inyokern route.

Kern Regional Transit

Kern Regional Transit provides fixed route and paratransit services throughout Kern County, including routes to Bakersfield and Lancaster. Kern Regional Transit connects to ESTA along Routes 230 and 227 serving Mojave, Ridgecrest, and Inyokern.

Antelope Valley Transit Authority (AVTA)

The AVTA provides extensive fixed route, commuter route, and paratransit in the areas of Palmdale, Unincorporated Los Angeles and Lancaster (where it connects to ESTA).

Air Service

The Mammoth-Yosemite Airport in Mammoth Lakes provides scheduled semi-private charter flights to and from Southern California. As the sixth busiest global airport, LAX is a major hub for domestic and international connections. In addition, the Reno/Tahoe International Airport is directly served by the ESTA US 395 Route to Reno.

Eastside Sierra Shuttle

The Eastside Sierra Shuttle operates under permit from the Inyo National Forest. It transports passengers to any vehicle-accessible trailhead in the Sierra Nevada Country or Death Valley country. The service transports up to six passengers and gear to paved trailheads, and up to four passengers and gear to off-

road trailheads. Routes have base prices ranging from $50 to $140 for one passenger, with additional reduced fares for each additional rider.

Mammoth All Weather Shuttles (MAWS)

MAWS provides private transportation and shuttle services to or from Mammoth Lakes along the Eastern Sierra Scenic Byway. Their services include point-to-point car service, door-to-door airport shuttles, long distance car service, trailhead transfers for hikers and backpackers, summer sightseeing tours, and limousine services for weddings, corporate, and special events. Rates depend on the service, ranging from $119 for an SUV carrying up to 5 persons and $1,625 for a minibus carrying up to 25 persons.

Taxi Service

Limited taxi and limousine services serve the region, operating out of Mammoth Lakes. Rates vary based on the destination. Reflecting the long travel distances, fares can be substantial. For instance, the rate for a one-way taxi trip between Mammoth Lakes and Bishop ranges between $120 to $175.

OTHER TRANSPORTATION PROVIDERS

Inyo -Mono Association for the Handicapped (IMAH)

The Inyo-Mono Association for the Handicapped provides a group of programs and services for adults aged 18 and older who are developmentally disabled who live in Inyo and Mono Counties. The center is located at 371 S. Warren Street in Bishop. IMAH provides transportation for clients to and from programs as well as to work, using a fleet of nine vehicles. Four of the vehicles were purchased with FTA 5310 grant funds and a majority of the vehicles are wheelchair accessible. Most IMAH clients live in Bishop and Lone Pine and require transportation to the IMAH center in Bishop. Those clients who wish to participate in IMAH's Work Opportunities program are transported to their places of employment using FTA 5310 grant vehicles. IMAH operates roughly 675 miles per day for a total operating cost of around $90,000 per year. The majority of funding is provided through the Kern Regional Center, but a significant and important portion comes from donations and proceeds from the IMAH thrift store.

Great Steps Ahead

Great Steps Ahead is a private organization which provides in home and on-site early intervention services for children ages 0 to 3 with identified disabilities, developmental differences, and infants at risk for developmental delays. The agency is a service provider for the Kern Regional Center. Great Steps Ahead operates two centers: South St. in Bishop and one in Mammoth Lakes. The agency spends roughly $5,000 on bus passes for clients and will also transport clients between their homes and the center in an agency owned vehicle.

Bishop Paiute Tribe

The Bishop Paiute Tribe is a sovereign nation located in the middle of the community of Bishop. The tribe operates the Paiute Palace on US 395 in Bishop. In FY 2018-19, approximately 25 percent of ESTA's DAR trips in Bishop had an origin or destination on the Reservation.

Toiyabe Indian Health Project

The Toiyabe Indian Health Project is a consortium of seven federally recognized tribes and two Indian communities which provide a variety of health care services, including dialysis, preventative health, mental health, dental, etc. There are three clinics located in the region: Bishop Clinic at 250 See Vee Lane, Lone Pine Clinic at 1150 Goodwin Road, and Camp Antelope at 73 Camp Antelope Rd in Coleville. Transportation is sometimes provided for tribal members without access to a vehicle to get to medical appointments and dialysis.

Southern Inyo Health Care District

Southern Inyo Hospital is located at 501 East Locust Street in Lone Pine and provides emergency services, acute care, lab services, radiology, skilled nursing, physical therapy, and hospice services. The hospital is a critical access hospital and rural health clinic and therefore a transit generator for the region.

Northern Inyo Hospital

Northern Inyo County Local Hospital District is located at 150 Pioneer Lane in Bishop and is a 25-bed critical access, not-for-profit hospital. The Northern Inyo Hospital operates the Rural Health Clinic in Bishop, which is the only medical facility in Bishop which offers immediate non-emergency medical assistance. The clinic is open Monday through Saturday 8:00 AM to 5:00 PM and the hospital is open 24 hours a day. The Northern Inyo Hospital recently acquired their own shuttle to provide transportation services for their clients.

Disabled Sports Eastern Sierra

Disabled Sports Eastern Sierra is a volunteer-based nonprofit dedicated to changing the lives of children and adults with disabilities and their families by offering year-round outdoor sports and activities, creating inspiring challenges, providing expert instruction and adaptive equipment, and rallying the community to comfortably accommodate people with disabilities. On occasion, this organization will use a Toyota Tundra to transport program participants to Mammoth Mountain Ski Area or the Whitmore Recreation Area, if the participant has no other means of transportation. This happens fewer than twenty times a year. Disabled Sports also transports Wounded Warriors between the airport and the ski area. If a large group arrives, Disabled Sports will coordinate with ESTA to provide a larger bus for the trip to the airport. Trips associated with this program are counted in the "Specials" category for ESTA.

INYO COUNTY HEALTH AND HUMAN SERVICES

Eastern Sierra Area Agency for the Aging (ESAAA)

The California Department of Aging (CDA) administers programs that serve older adults, adults with disabilities, family caregivers, and residents in long-term care facilities throughout the State. The Department administers funds allocated under the federal Older Americans Act and the Older Californians Act. CDA contracts with the network of Area Agencies on Aging, who directly manage a wide array of federal and state-funded services that help older adults to live as independently as possible in the community; promote healthy aging and community involvement; and assist family members in their vital care giving role. The Area Agency on Aging in Inyo and Mono County is Eastern Sierra Area Agency for the Aging (ESAAA). ESAAA is governed by the Inyo County Board of Supervisors (BOS), who has designated the Department of Health and Human Services (HHS) to administer the ESAAA services. HHS oversees a contract with the County of Mono through which Mono County employees serve Mono County seniors. In Inyo County, HHS staff directly serve Inyo County seniors.

In Inyo County, ESAAA provides a variety of services including social services, services for the aging population, employment and eligibility, behavioral health services, public health services and prevention. ESAAA provides rides to individuals who are physically or logistically unable to use regular public transportation to obtain essential services such as medical appointments, grocery shopping, and pharmacy visits. These individuals need transportation and assistance from the driver to find the out-of-town medical facility, purchase and carry groceries into the house, enter and exit the vehicle, etc. Based on individual needs, services are provided by Inyo County staff using program vehicles to residents of Inyo County. Staff provide short and long-distance medical trips as far as Reno and Lancaster as well as regular errand/shopping trips. ESAAA Site Coordinators assess individuals, plan trips and maintain records.

Mono County Senior Program

The Mono County Senior Program provides transportation and purchases bus passes on ESTA for clients. The Mono County Senior Program currently has one vehicle to transport seniors from Benton to medical appointments and shopping in Bishop/Mammoth, as well as Walker residents to Gardnerville, Carson City, and Reno. During FY 2018-19, 64 ESTA bus passes were sold to clients at a discounted rate and roughly 132 one-way trips were made. Since the previous SRTP, this program has experienced a 78 percent increase over the 74 one-way trips provided in 2015. On occasion the Senior Program provides trips for Mono County Social Services.

Mono County Health Department

The Mono County Health Department provides transportation assistance for clients who participate in the California Children's Services (CCS) Program and HIV Care Program (HCP). CCS is a state-funded program that assists families by providing medical specialists for children with chronic diseases, permanent health problems, and severe disabilities. After establishing medical and financial eligibility, families are able to access specialists throughout California. HCP (also known as Ryan White) is a program

for low-income individuals diagnosed with HIV/AIDS, their partners, and their families. On a case-by-case basis, gas vouchers may be provided for clients who need to travel outside of Mono County for specialty HIV care and other related medical services.

Big Pine Education Center

The Big Pine Education Center provides support services for youth, including the following: academic support for K-12 students; workshops on family formation and "out of wedlock" pregnancy; and transportation for youth sporting activities in Bishop. The program uses one 12 – 15 passenger van to transport students to Bishop Park and the Barlow Gym. The Big Pine Education Center is funded through tribal grants and would be unable to share the vehicle with non-Big Pine Paiute programs.

Kern Regional Center

The Kern Regional Center (KRC) is one of California's 20 centers which receive funding through the State Department of Developmental Services to provide services and assistance to improve the quality of life for persons with developmental disabilities. KRC and its vendors provide life-long case management, prevention programs, parent support services and community resource development. In FY 2021-22 KRC spent $51,000 on ESTA bus passes for their clients.

Veterans Services Office

The Veteran's Services Office for Inyo and Mono Counties is operated out of the Inyo County Sheriff's Office. Gas vouchers are provided to veterans with financial disadvantages. Additionally, the Veteran Service Office assists Veterans in coordinating and funding transportation to any VA appointment that falls under ESTA's established routes. Transportation is also coordinated through the Veterans of Foreign Wars (VFW) Post #8988 for any VA appointment outside of ESTA's routes. Veterans being provided these transportation services will be ineligible to receive Beneficiary Travel from the VA.

Chapter 4

ESTA RIDERSHIP AND OPERATIONAL OVERVIEW

In an effort to most accurately compare ridership trends over the past several years, the following analysis focuses on a comparison between FY 2015/16 and FY 2018/19 to capture ridership and service hours prior to Covid-19. A brief overview of ridership impacts since Covid-19 is then provided, followed by a summary of monthly and weekly ridership trends prior to the impacts of Covid-19.

ANNUAL RIDERSHIP AND SERVICE LEVELS

Historical ridership from FY 2015/16 to FY 2020/21 is presented in Table 9 and Figures 12, 13, and 14. Between FY 2015/16 and FY 2018/19, systemwide annual one-way passenger-trips declined by 2 percent (nearly 18,000 passengers). However, some individual routes increased in ridership during this study period including the North and South US 395 routes (32 percent respectively), the Benton to Bishop route (23 percent), and the Red, Blue, Green, and Yellow winter Mammoth routes (27 percent). Figure 13 shows Mammoth Fixed Route historical ridership in more detail. As illustrated, ridership remained steady between 850,000 and 950,000 passenger trips during the span of FY 2015/16 and FY 2018/19. The Bishop Creek Shuttle has also seen significant growth since its implementation and has maintained an annual ridership between 500 and 650 passenger trips per year. The Bridgeport to Carson City route saw the greatest proportionate decrease in one-way passenger-trips (-58 percent) over the four-year period, followed by Lone Pine Express route (-24 percent). Ridership proportion highlights for FY 2018/19 include the following:

- The Mammoth Fixed Routes made up about 85 percent of annual ridership when considering both the summer and winter seasons.
- The Reds Meadow Shuttle ridership made up 12.5 percent of annual ridership.

Dial-a-Ride (DAR) ridership has remained relatively consistent during the study period with the exception of the Bishop DAR. As shown in Figure 14, overall DAR ridership increased by 5 percent between FY 2015/16 and FY 2018/19, with the greatest growth in ridership occurring along the Mammoth DAR (33 percent), followed by Lone Pine DAR (26 percent). During this time, the Walker DAR experienced the greatest decrease in ridership (44 percent). Ridership proportion highlights for DAR during FY 2018/19 include the following:

- DAR made up 5 percent of systemwide annual ridership. Of DAR ridership, the Bishop DAR made up 76 percent of ridership, followed by Lone Pine DAR, Mammoth DAR, and the Nite Rider service (all 7.1 percent, respectively).
- The Walker DAR made up 2.5 percent of total DAR annual ridership.

Table 9: Annual Ridership by Route

Routes	FY 2018-19 # of Trips	FY 2018-19 % of Total	FY 2019-20 # of Trips	FY 2019-20 % of Total	FY 2020-21 # of Trips	FY 2020-21 % of Total	FY 2018/19 to FY 2020/21 #	FY 2018/19 to FY 2020/21 %
Benton to Bishop	410	0.0%	342	0.0%	93	0.0%	-317	-77%
Bishop Creek Shuttle	603	0.1%	564	0.1%	661	0.2%	58	10%
Bridgeport - Carson City	198	0.0%	179	0.0%	99	0.0%	-99	-50%
Lone Pine Express	3,322	0.3%	3,139	0.4%	2,431	0.7%	-891	-27%
Bishop to Reno (395 North)	7,954	0.8%	6,899	0.8%	5,180	1.5%	-2,774	-35%
Bishop to Lancaster (395 South)	6,289	0.6%	4,754	0.6%	2,958	0.9%	-3,331	-53%
Mammoth Fixed Routes - Summer (Purple, Town Trolley, Lakes Basin) & Winter (Purple, evening and late night trolley)	381,712	36.0%	288,271	34.8%	140,521	40.9%	-241,191	-63%
Mammoth Fixed Routes - Winter (Red,	521,606	49.2%	370,896	44.7%	189,173	55.0%	-332,433	-64%
Mammoth Express	5,209	0.5%	4,578	0.6%	2,576	0.7%	-2,633	-51%
Reds Meadow Shuttle	130,914	12.3%	149,389	18.0%	N/A	N/A	--	--
Walker to Mammoth	2,123	0.2%	N/A	N/A	N/A	N/A	--	--
Major Route Subtotal	*1,060,340*		*829,011*		*343,692*		**-716,648**	**-68%**
Special Event Charters (Bluesapalooza)	0	0.0%	2,098	39.8%	0	0.0%	--	--
Mule Days	484	7.8%	223	4.2%	182	61.3%	-302	-62%
Other	5,691	92.2%	2,946	55.9%	115	38.7%	-5,576	-98%
Special Event Transit Subtotal	*6,175*		*5,267*		*297*		**-5,878**	**-95%**
Bishop DAR	43,434	76.1%	36,013	77.7%	27,376	78.3%	-16,058	-37%
Lone Pine DAR	4,078	7.1%	4,510	9.7%	4,231	12.1%	153	4%
Mammoth DAR	4,052	7.1%	2,141	4.6%	1,729	4.9%	-2,323	-57%
Walker DAR	1,402	2.5%	618	1.3%	172	0.5%	-1,230	-88%
Nite Rider	4,074	7.1%	3,079	6.6%	1,442	4.1%	-2,632	-65%
Dial a Ride Service Subtotal	*57,040*		*46,361*		*34,950*		**-22,090**	**-39%**
ESTA RidershipTotal	1,123,555		880,639		378,939		**-744,616**	**-66%**

Source: ESTA Operational Data, 2021

Notes: Reds Meadow Shuttle

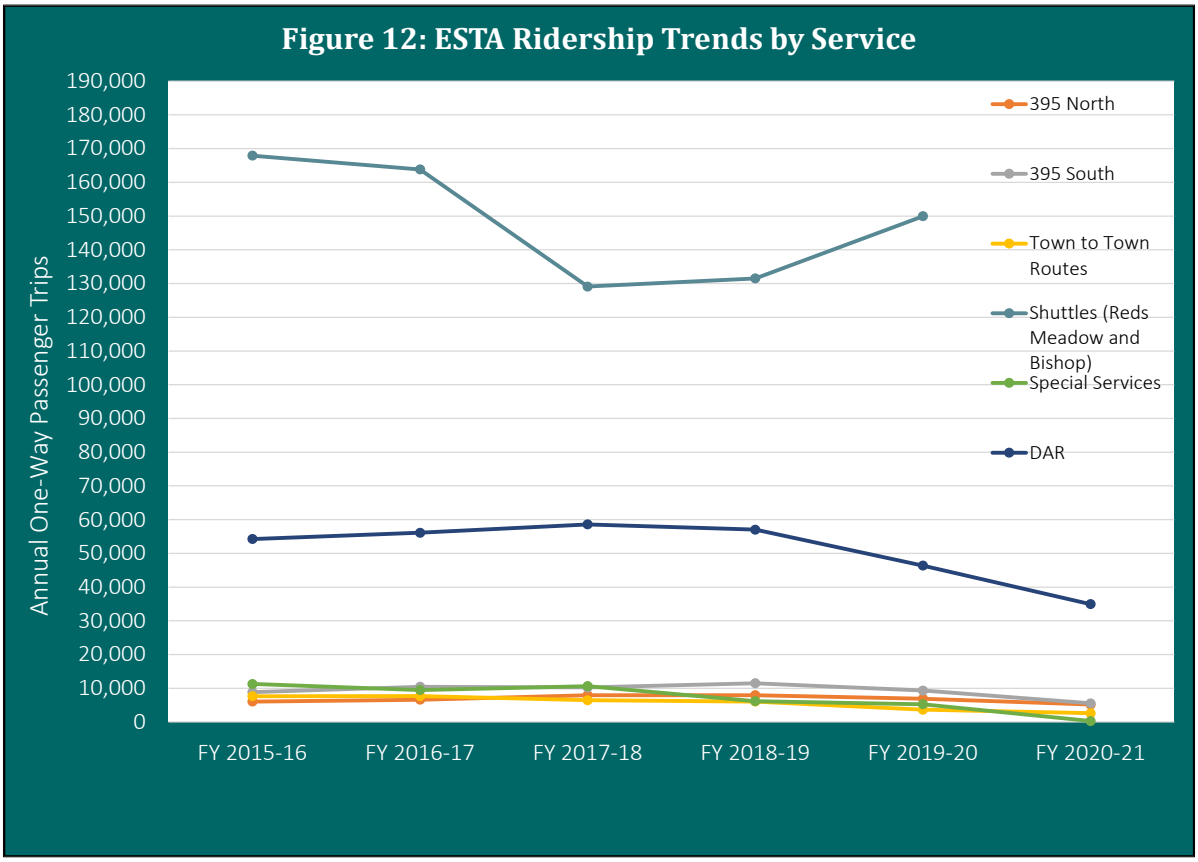


Figure 12: ESTA Ridership Trends by Service
Annual One-Way Passenger Trips
190,000
180,000
170,000
160,000
150,000
140,000
130,000
120,000
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
FY 2015-16
FY 2016-17
FY 2017-18
FY 2018-19
FY 2019-20
FY 2020-21
395 North
395 South
Town to Town Routes
Shuttles (Reds Meadow and Bishop)
Special Services
DAR

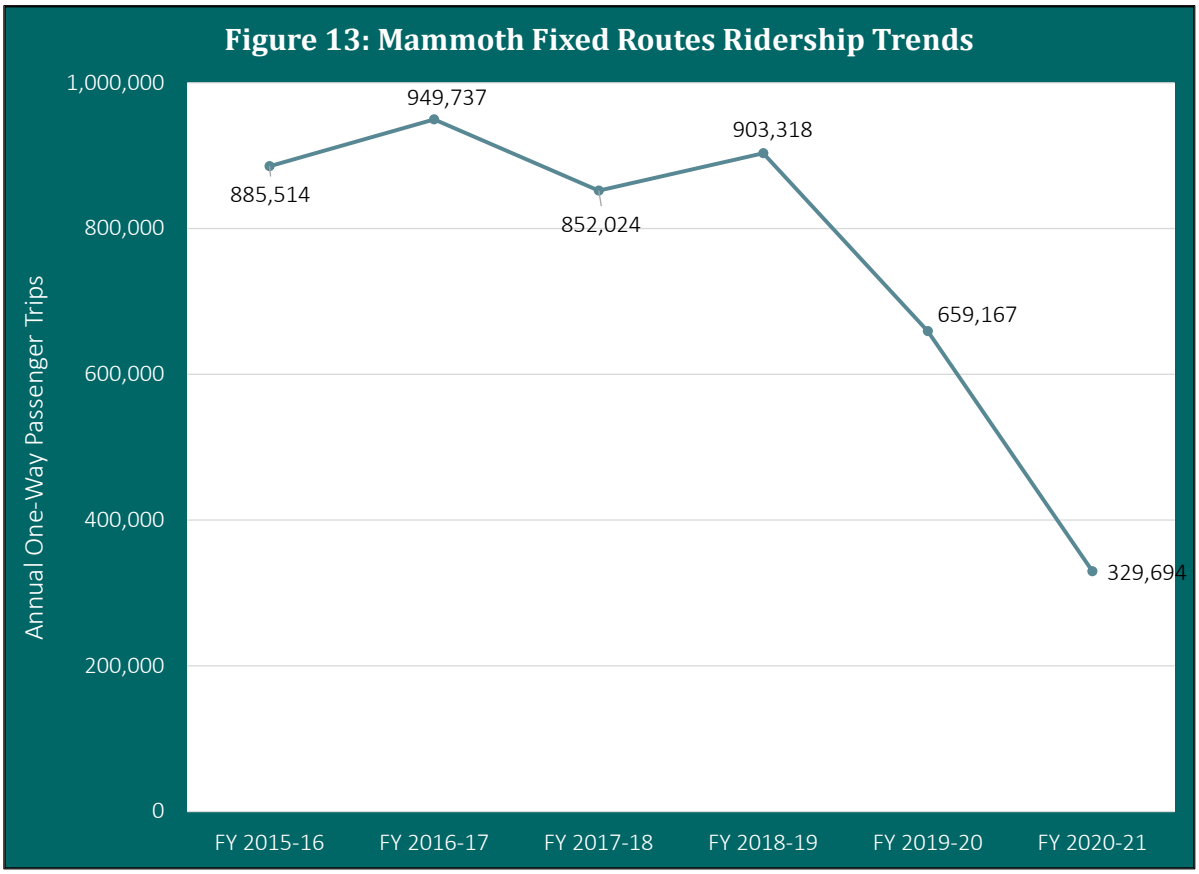
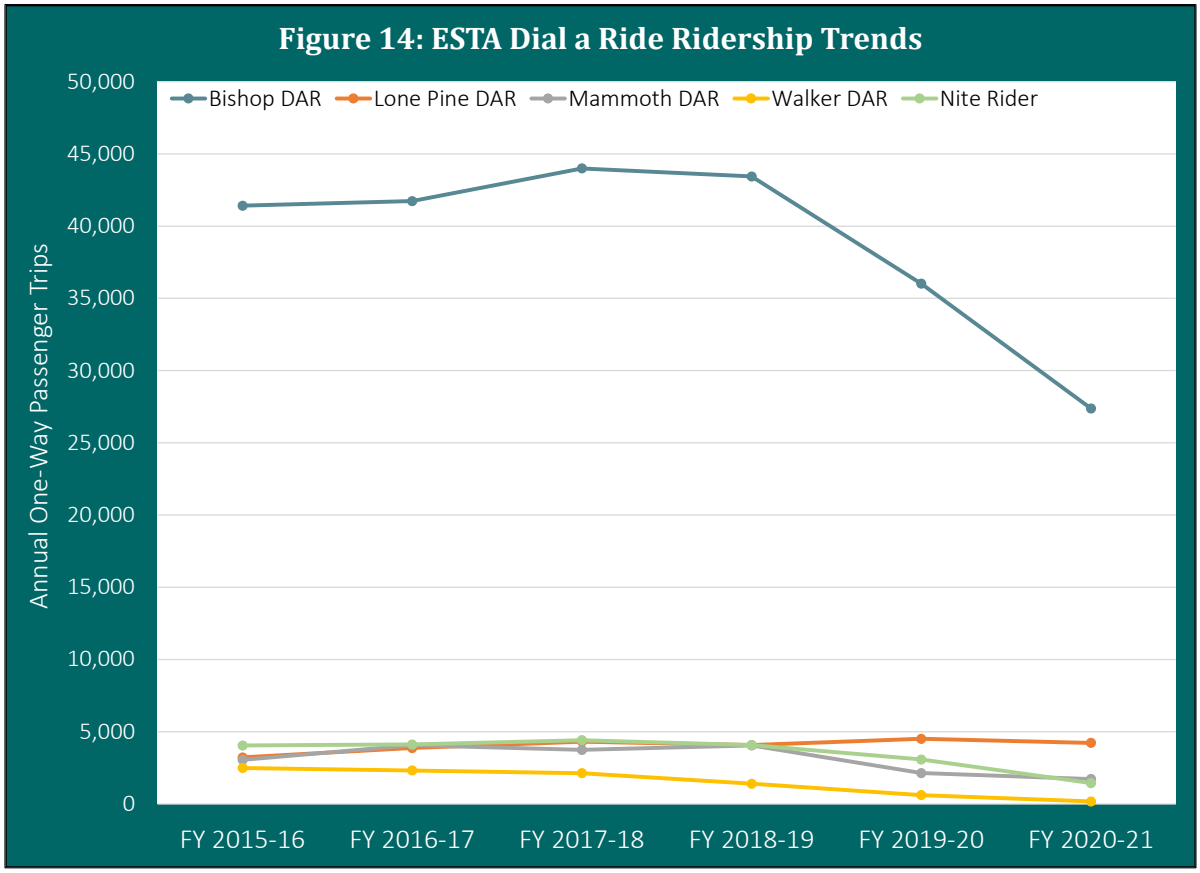


Figure 13: Mammoth Fixed Routes Ridership Trends
Annual One-Way Passenger Trips
1,000,000
800,000
600,000
400,000
200,000
0
885,514
949,737
852,024
903,318
659,167
329,694
FY 2015-16
FY 2016-17
FY 2017-18
FY 2018-19
FY 2019-20
FY 2020-21



Service hours by route remained relatively steady between FY 2015/16 and FY 2018/19, as shown in Table 10 and Figures 15, 16, and 17. Routes that experienced the greatest increase in service hours included the Bishop to Lancaster 395 South route (69 percent), Walker to Mammoth route (61 percent), and the Bishop to Reno 395 North route (27 percent). Vehicle service hours along the Mammoth Express decreased the most with a 26 percent decrease between FY 2015/16 and FY 2018/19, followed by Reds Meadow Shuttle (-21 percent). Figure 16 illustrates the Mammoth fixed route service hours. As shown, vehicle service hours undulated between 26,000 and 27,000 between FY 2015/16 and FY 2018/19. DAR service hours have remained fairly consistent in recent years as well with the exception of the Bishop DAR which has varied between 9,000 and 11,000 service hours per year during the study period (Figure 17).

Covid Impacts: Recent Ridership and Service Levels

The impacts of Covid-19 began in March of 2020 when transit agencies across the country restricted transit services or suspended them temporarily. As shown in Table 9 and Figures 12, 13, and 14, ridership levels declined across nearly every service with the exception of the Bishop Creek Shuttle and the Lone Pine DAR (both of which increased by 9.6 percent and 3.8 percent, respectively). Over the last two fiscal years, the route that has experienced the greatest decrease in ridership has been the Benton to Bishop route (-77 percent), followed by the Mammoth fixed routes (-64 percent), and the Mammoth Express route (-51 percent).

Table 10: Historical and Recent Vehicle Service Hours

	FY 2015-16		FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21		FY 2015/16 to FY 2018/19	
	# of Hours	% of Total	# of Hours	% of Total	# of Hours	% of Total	# of Hours	% of Total	# of Hours	% of Total	# of Hours	% of Total	#	%
Benton to Bishop	157	0%	149	0%	171	0%	179	0%	168	0%	125	0%	22	14%
Bishop Creek Shuttle	0	0%	56	0%	302	1%	276	1%	308	1%	335	1%	276	396%
Bridgeport to Carson City	312	1%	321	1%	316	1%	308	1%	228	1%	303	1%	-4	-1%
Lone Pine Express	1,270	3%	1,485	4%	1,216	3%	1,227	3%	1,221	3%	1,212	4%	-42	-3%
Bishop to Reno (395 North)	2,630	7%	2,710	7%	3,319	8%	3,343	8%	3,036	8%	3,255	9%	713	27%
Bishop to Lancaster (395 South)	1,581	4%	1,659	4%	2,567	6%	2,674	7%	2,536	7%	2,686	8%	1,093	69%
Mammoth Fixed Routes - Summer (Purple, Town Trolley, Lakes Basin) & Winter (Purple, evening and late night trolley)	16,081	41%	15,337	40%	16,660	42%	16,060	40%	15,805	43%	15,664	45%	-21	0%
Mammoth Fixed Routes - Winter (Red, Blue, Green, Yellow)	10,734	27%	10,587	27%	10,125	25%	10,872	27%	8,797	24%	9,875	29%	138	1%
Mammoth Express	1,286	3%	1,467	4%	961	2%	949	2%	976	3%	988	3%	-337	-26%
Reds Meadow Shuttle	4,809	12%	4,065	10%	3,576	9%	3,785	9%	3,753	10%	0	0%	-1,023	-21%
Walker to Mammoth	500	1%	967	2%	765	2%	804	2%	0	0%	0	0%	303	61%
Major Route Subtotal	***39,360***		***38,802***		***39,978***		***40,479***		***36,829***		***34,442***		***1,119***	***3%***
Special Event Charters (Bluesapalooza)	167	55%	156	64%	109	34%	0	0%	32	19%	0	0%	-167	-100%
Mule Days	69	23%	52	21%	52	16%	35	16%	13	8%	22	49%	-34	-49%
Other	67	22%	38	15%	161	50%	183	84%	124	73%	23	51%	116	172%
Special Event Transit Subtotal	***303***		***246***		***322***		***218***		***169***		***45***		***-86***	***-28%***
Bishop DAR	9,608	61%	10,743	63%	10,078	62%	10,945	63%	9,241	60%	9,081	62%	1,336	14%
Lone Pine DAR	1,745	11%	1,764	10%	1,750	11%	1,759	10%	1,781	12%	1,784	12%	14	1%
Mammoth DAR	2,167	14%	2,087	12%	2,145	13%	2,096	12%	2,355	15%	1,987	14%	-72	-3%
Walker DAR	1,384	9%	1,515	9%	1,514	9%	1,868	11%	1,266	8%	1,155	8%	484	35%
Nite Rider	813	5%	820	5%	811	5%	810	5%	692	5%	525	4%	-3	0%
Dial a Ride Service Subtotal	***15,718***		***16,930***		***16,298***		***17,477***		***15,334***		***14,531***		***1,759***	***11%***
ESTA RidershipTotal	***55,381***		***55,978***		***56,598***		***58,174***		***52,332***		***49,018***		***2,792***	***5%***

Source: ESTA Service Hours, 2021

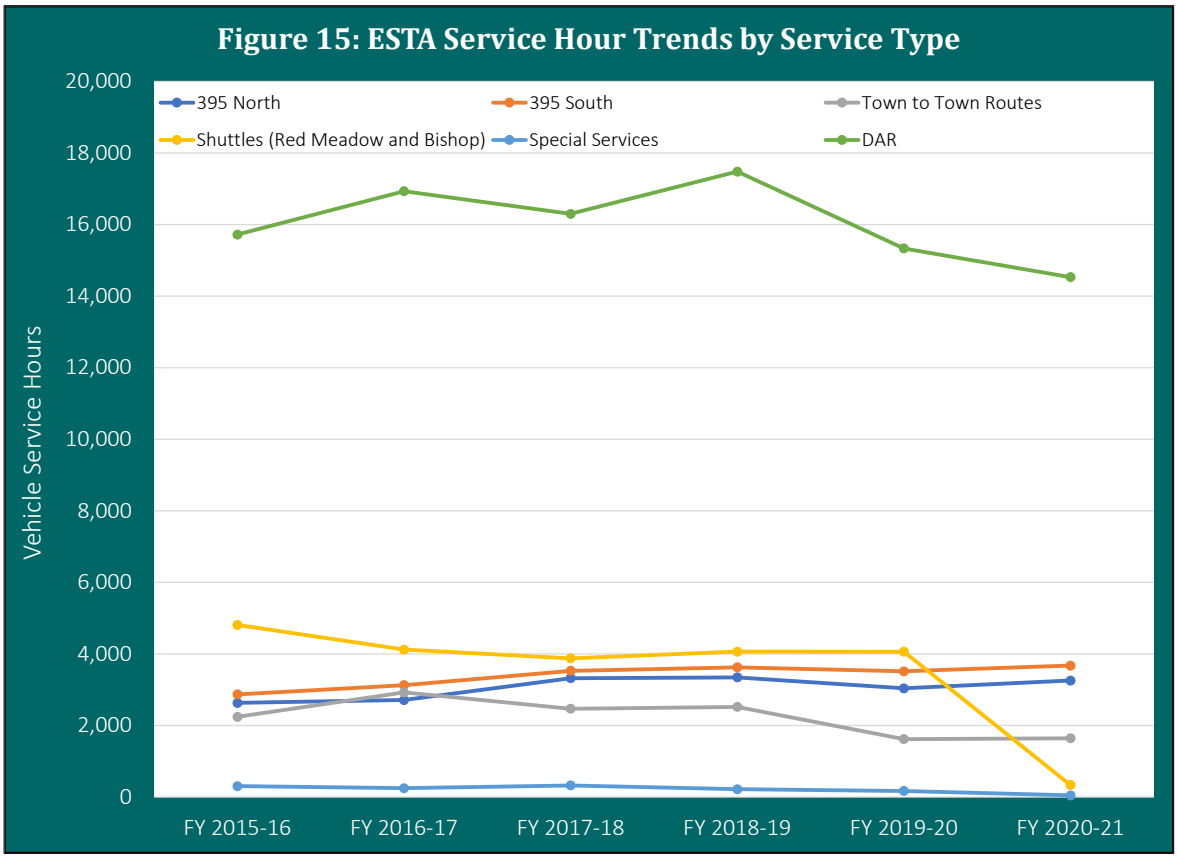


Figure 15: ESTA Service Hour Trends by Service Type
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Vehicle Service Hours
395 North
395 South
Town to Town Routes
Shuttles (Red Meadow and Bishop)
Special Services
DAR
FY 2015-16
FY 2016-17
FY 2017-18
FY 2018-19
FY 2019-20
FY 2020-21

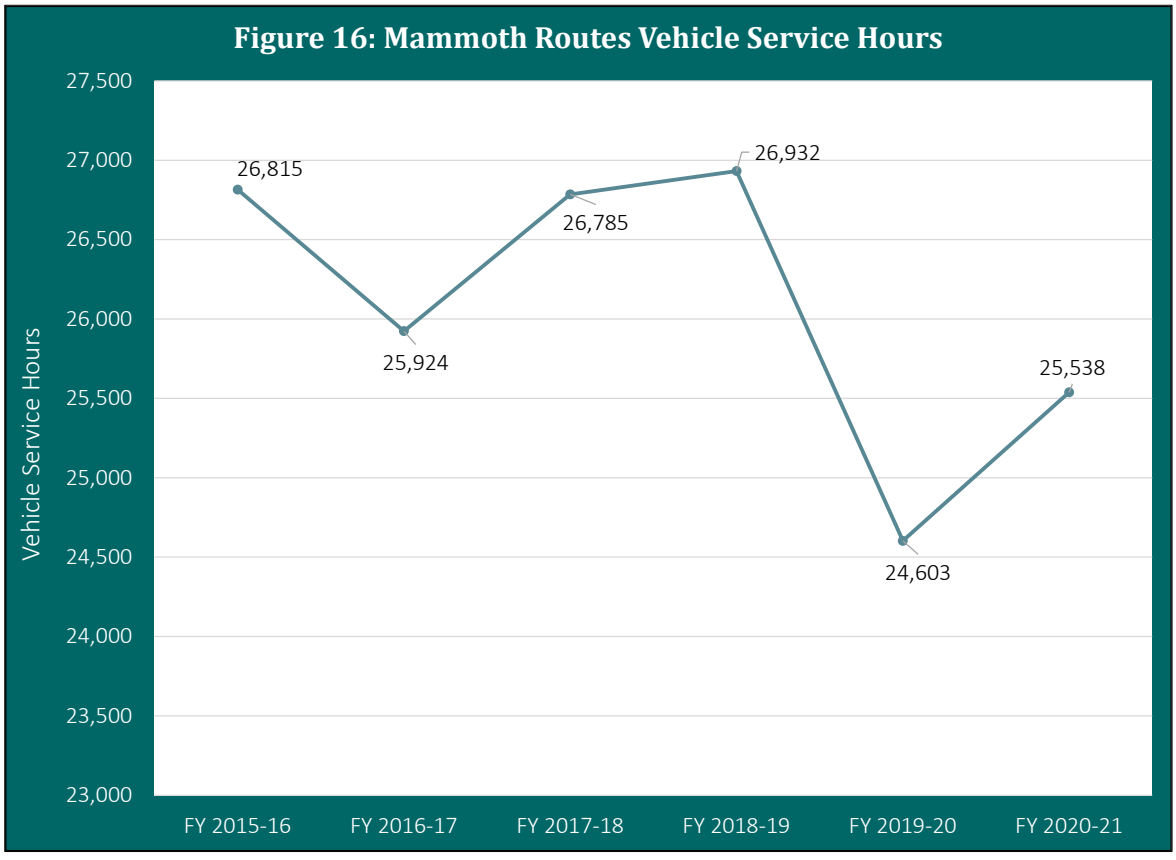
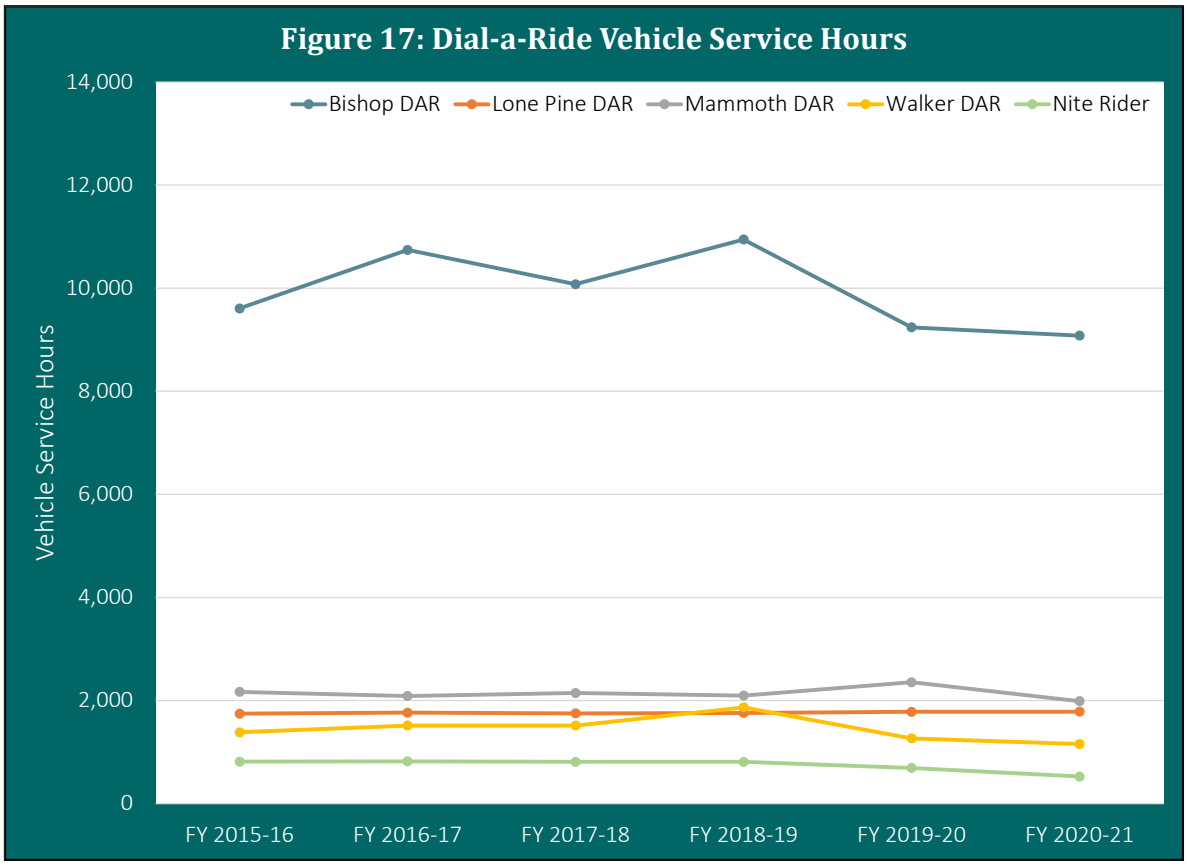


Figure 16: Mammoth Routes Vehicle Service Hours
27,500
27,000
26,500
26,000
25,500
25,000
24,500
24,000
23,500
23,000
Vehicle Service Hours
26,815
25,924
26,785
26,932
24,603
25,538
FY 2015-16
FY 2016-17
FY 2017-18
FY 2018-19
FY 2019-20
FY 2020-21



DAR services also experienced a large decrease in ridership over the past couple of years. With an 88 percent decrease in ridership, Walker DAR had the greatest loss in ridership of all other DAR services, followed by Nite Rider (-65 percent) and Mammoth DAR (-57 percent). Interestingly, Lone Pine DAR had an increase of ridership since Covid-19 (4 percent).

Ridership by Month

Figures 18 and 19 and Table 11 illustrate the monthly ridership trends for ESTA annual routes during FY 2018/19. As shown, the months of January and July generated the highest route ridership levels with 155,178 and 144,993 passenger-trips per month, respectively, whereas October and May saw the lowest ridership. Monthly DAR ridership peaked in August and March with 5,438 and 5,106 passengers, respectively. The lowest DAR ridership occurred during the month of November (4,351 one-way trips).

The impacts of Covid-19 on ridership can be more clearly seen in Figures 20 and 21. As shown, FY 2019/20 ridership was comparable to the previous fiscal year up until January of 2020 where passenger trips began to decline. FY 2020/21 ridership continued to exhibit ridership far less than that of previous years, with a small peak in ridership occurring in March of 2021 with 59,250 passenger trips, nearly half of total ridership in March of 2019. DAR trips were also greatly impacted by Covid-19 (Figure 21). As illustrated, overall ridership during FY 2020-21 continues to be just over half of ridership shown in previous fiscal years.

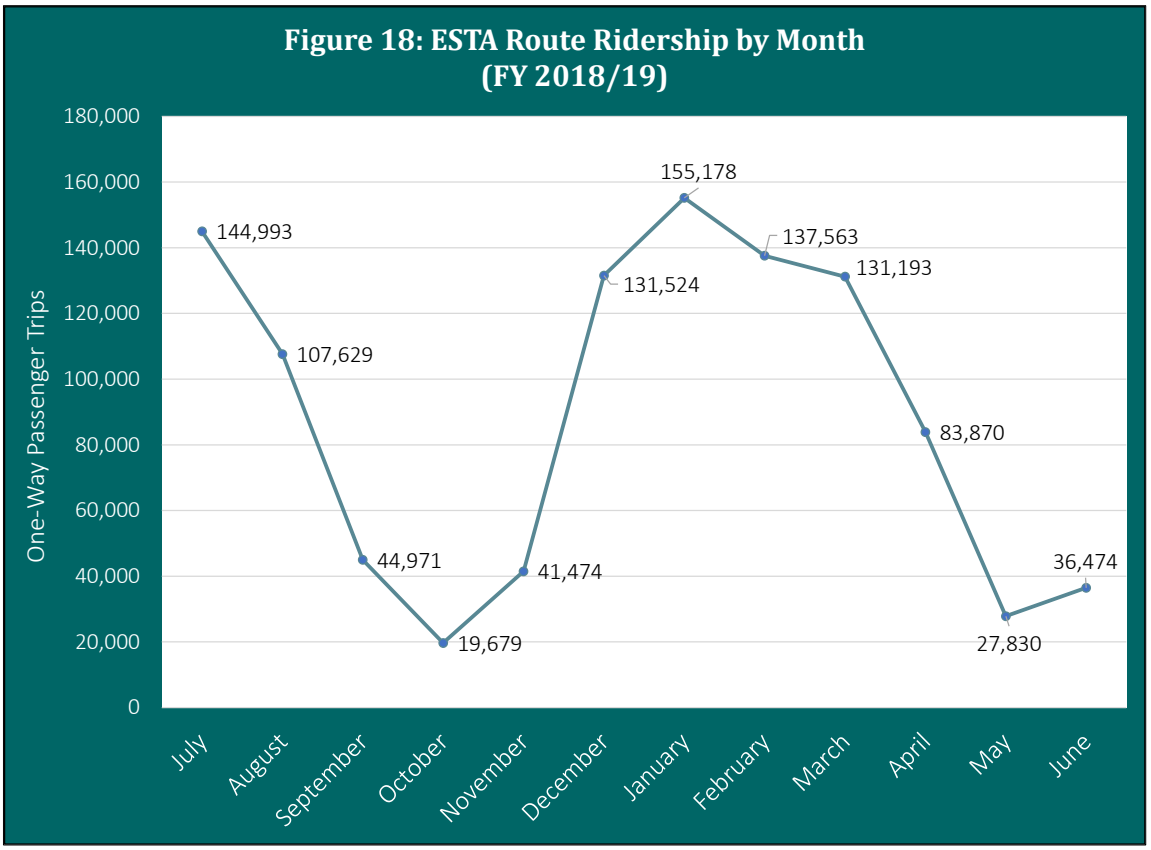


Figure 18: ESTA Route Ridership by Month
(FY 2018/19)
One-Way Passenger Trips
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
144,993
107,629
44,971
19,679
41,474
131,524
155,178
137,563
131,193
83,870
27,830
36,474
July
August
September
October
November
December
January
February
March
April
May
June

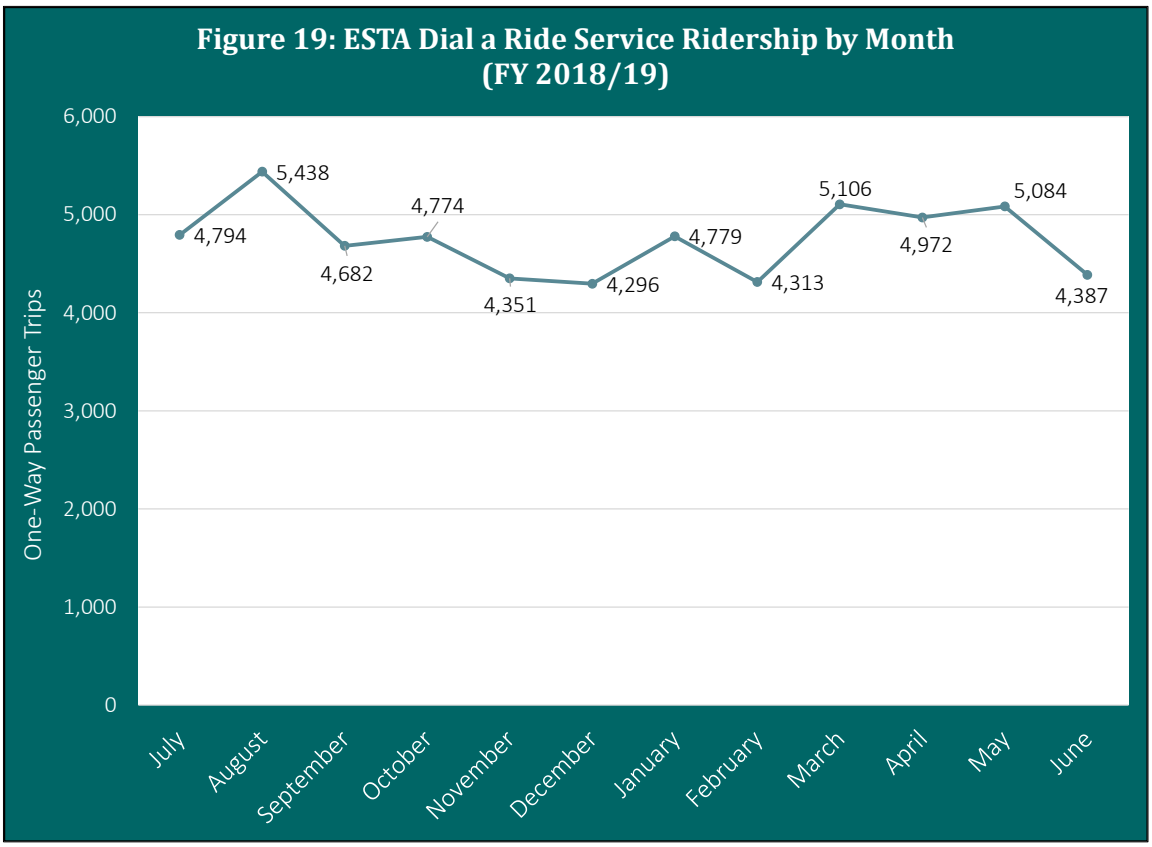


Figure 19: ESTA Dial a Ride Service Ridership by Month
(FY 2018/19)
One-Way Passenger Trips
6,000
5,000
4,000
3,000
2,000
1,000
0
4,794
5,438
4,682
4,774
4,351
4,296
4,779
4,313
5,106
4,972
5,084
4,387
July
August
September
October
November
December
January
February
March
April
May
June

Table 11: ESTA Ridership by Month (FY 2018/19)

	2018						2019					
Routes	July	August	September	October	November	December	January	February	March	April	May	June
Benton to Bishop	37	37	35	32	53	35	28	33	22	22	29	47
Bishop Creek Shuttle	202	264	9	0	0	0	0	0	0	0	0	130
Bridgeport to Carson City	17	33	14	12	18	10	12	14	14	19	11	22
Walker to Mammoth	157	92	12	0	0	211	629	442	437	54	0	0
Lone Pine Express	371	367	270	304	223	187	273	174	241	209	302	395
Bishop to Reno (395 North)	1,043	1,154	696	564	413	557	606	408	524	549	689	753
Bishop to Lancaster (395 South)	846	942	554	452	364	377	356	378	451	487	525	581
Summer (Purple, Town Trolley, Lakes Basin) Winter (Purple, evening and late night trolley)	71,030	57,379	28,933	17,303	16,545	27,883	30,798	27,317	27,342	19,018	24,209	33,080
Special Events	0	0	0	0	0	0	0	0	0	0	0	0
Winter(Red, Blue, Green, Yellow)	0	0	0	0	23,486	99,931	121,230	108,157	101,410	63,132	1,200	0
Mule Days	0	0	0	0	0	0	0	0	0	0	435	0
Mammoth Express	479	531	308	307	372	399	564	446	534	380	430	435
Other	30	1,468	72	2	0	1,934	682	194	218	0	0	1,031
Reds Meadow	70,781	45,362	14,068	703	0	0	0	0	0	0	0	0
Total Ridership by Month	***144,993***	***107,629***	***44,971***	***19,679***	***41,474***	***131,524***	***155,178***	***137,563***	***131,193***	***83,870***	***27,830***	***36,474***
Dial a Ride (DAR)												
Bishop DAR	3,838	4,198	3,706	3,777	3,485	3,271	3,637	3,279	3,663	3,652	3,635	3,229
Lone Pine DAR	318	363	280	335	296	329	370	331	367	396	367	326
Mammoth DAR	253	305	149	195	141	210	426	309	605	498	566	395
Walker DAR	125	135	107	153	115	107	116	94	98	117	137	98
Night Rider	260	437	440	314	314	379	230	300	373	309	379	339
Total Ridership by Month	***4,794***	***5,438***	***4,682***	***4,774***	***4,351***	***4,296***	***4,779***	***4,313***	***5,106***	***4,972***	***5,084***	***4,387***

Source: ESTA Service Hours, 2021

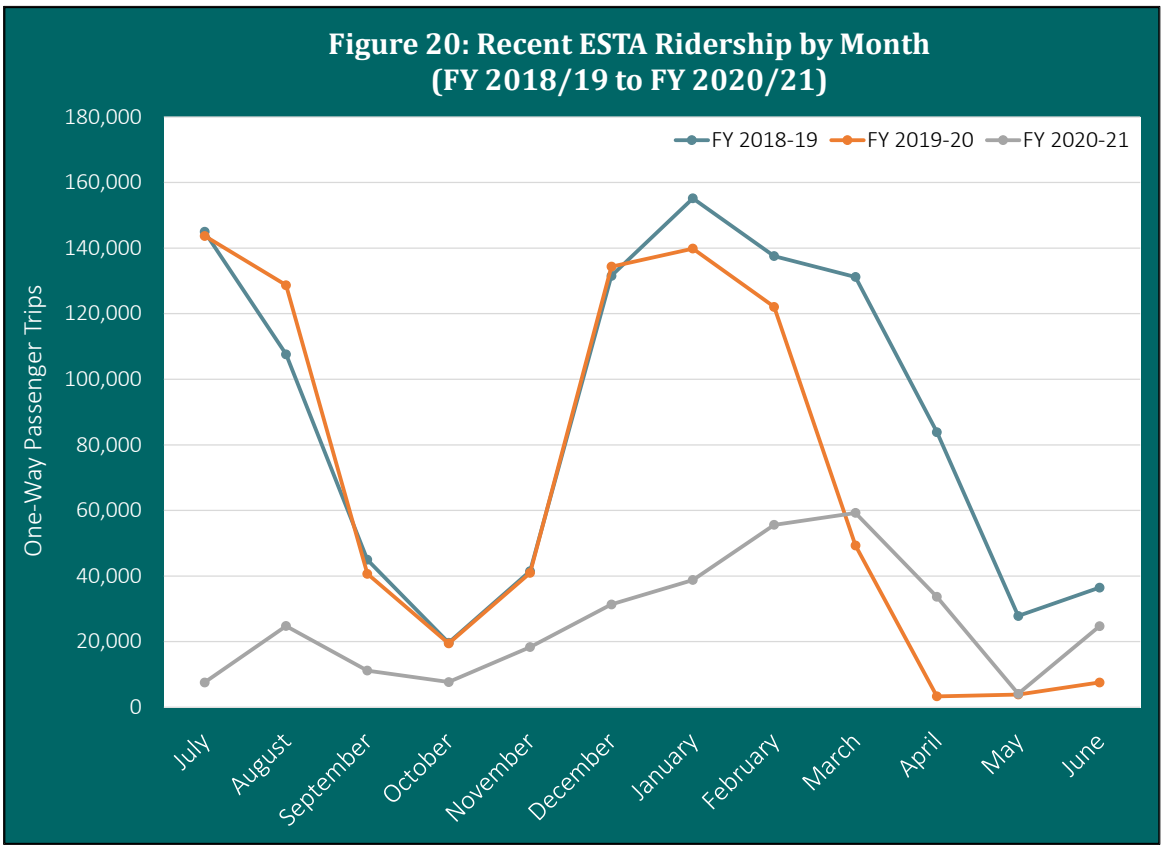


Figure 20: Recent ESTA Ridership by Month
(FY 2018/19 to FY 2020/21)
One-Way Passenger Trips
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
FY 2018-19
FY 2019-20
FY 2020-21
July
August
September
October
November
December
January
February
March
April
May
June

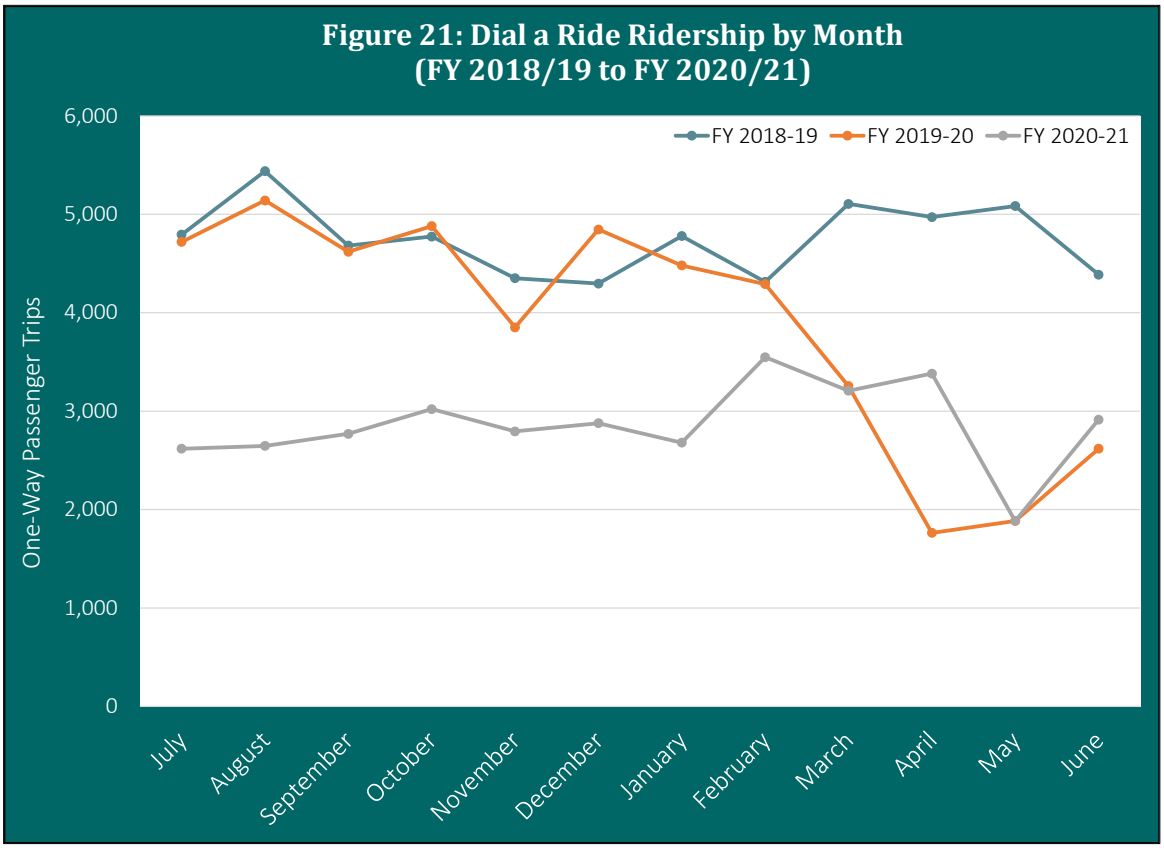


Figure 21: Dial a Ride Ridership by Month
(FY 2018/19 to FY 2020/21)
One-Way Passenger Trips
6,000
5,000
4,000
3,000
2,000
1,000
0
FY 2018-19
FY 2019-20
FY 2020-21
July
August
September
October
November
December
January
February
March
April
May
June

Ridership by Day of Week

Table 12 presents ridership proportion by route for a summer peak week (July 14th-20th, 2019) and winter peak week (February 9th-15th, 2020). During the summer week the Reds Meadow route made up 49.6 percent of total ridership, followed by the Mammoth summer routes (Purple, Town Trolley, and Lakes Basin) which made up 48.1 percent of total ridership. Winter route ridership was greatest along the Mammoth Mountain winter routes (the Red, Blue, Green, and Yellow routes) with 77 percent of total ridership. Another 21.4 percent of ridership occurred along the other Mammoth winter routes (the Purple route, and the evening and late night trolleys).

Table 13 presents ridership by day of week for all ESTA services (prior to the pandemic) for a peak summer week (July 14th – 20th, 2019) and a peak winter week (February 9th – 15th, 2020). The average peak weekday systemwide one-way passenger-trips recorded is 4,411 in the summer and 3,001 in the winter. During both seasons, Saturday generates the greatest portion of ridership, accounting for 20.5 percent of total weekly ridership during the peak summer and 25.7 percent of total weekly ridership in the peak winter. This is evident in Figure 22, where there is a large peak in ridership on Saturday while Sunday ridership returns to closer to weekday levels.

Table 12: Seasonal Peak Weekly Ridership (FY 2019-20)

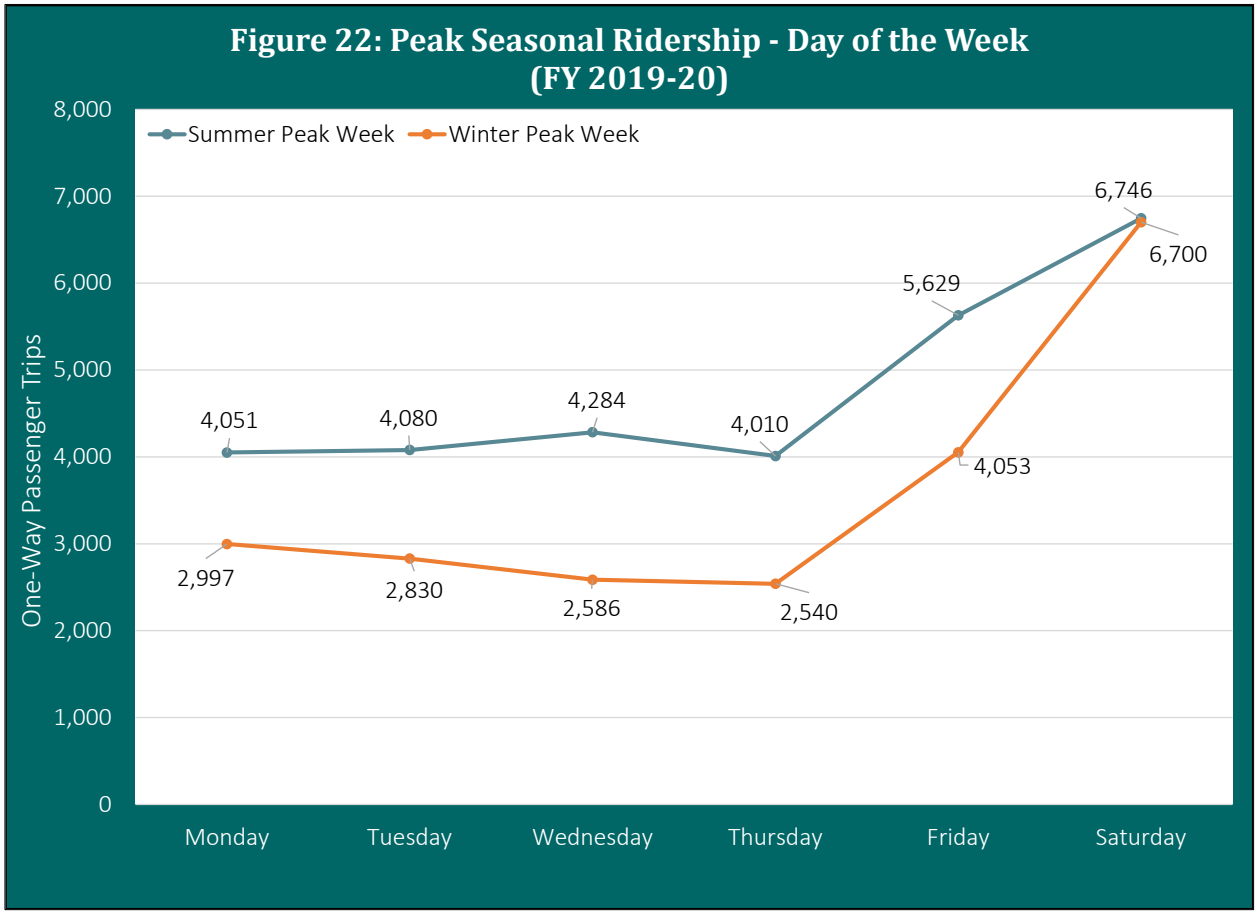
	Summer Peak (July 14th-20th, 2019)		Winter Peak (Feb 9th-15th, 2020)	
Routes	Total Passengers	% of Total	Total Passengers	% of Total
Benton	8	0.0%	10	0.0%
Bishop Creek Shuttle	41	0.1%	-	-
Bridgeport to Carson City	2	0.0%	4	0.0%
Walker to Mammoth	0	0.0%	0	0.0%
Lone Pine Express	92	0.3%	58	0.2%
Bishop to Reno (395 North)	268	0.8%	138	0.6%
Bishop to Lancaster (395 North)	163	0.5%	79	0.3%
Mammoth Summer Routes (Purple, Town Trolley, Lakes Basin)	15,358	48.1%	N/A	N/A
Mammoth Winter Routes (Purple, evening and late night trolley)	N/A	N/A	5,357	21.4%
Mammoth Winter Routes (Red, Blue, Green, Yellow)	N/A	N/A	19,284	77.0%
Mammoth Express	137	0.4%	113	0.5%
Reds Meadow Shuttle	15,844	49.6%	0	0.0%
Total Ridership by Week	***31,913***		***25,043***	
Dial a Ride (DAR)				
Bishop DAR	782	72.9%	844	81.6%
Lone Pine DAR	80	7.5%	121	11.7%
Mammoth DAR	109	10.2%	32	3.1%
Walker DAR	22	2.1%	9	0.9%
Night Rider	79	7.4%	28	2.7%
Total Ridership by Week	***1,072***		***1,034***	

Source: ESTA FY 2019-20 Ridership Data, 2021
Note: Bishop Creek did not run during the Winter season 2020.

Table 13: Peak Seasonal Ridership - Day of the Week (FY 2019-20)

Season	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Avg Weekday Daily	Avg Weekend Daily	Total Weekly
Summer Peak Week	**4,051**	4,080	4,284	4,010	5,629	6,746	4,185	4,411	5,466	28,800
Winter Peak Week	2,997	2,830	2,586	2,540	4,053	6,700	4,381	3,001	5,541	21,706

Source: ESTA Ridership during the weeks of July 14th, 2019 and February 9th, 2020



Ridership by Passenger Type

Table 14 displays the FY 2018-19 systemwide ESTA ridership by type of passenger (general public, senior, youth, etc.). Overall, 84.1 percent of the ridership profile is made up of the general public. Notably, youth (passengers under the age of 16) follow, accounting for 12.1 percent of the annual ridership. Senior and disabled riders each make up 2 and 1.2 percent of the annual ridership profile, respectively. Passengers boarding for free account for 0.5 percent of total annual ridership. It is important to note, however, that due to the free nature of Mammoth local routes, the "Free" category only pertains to the routes outside of Mammoth local transit.

A closer look was taken at ridership by passenger type for the DAR services specifically. The general public and senior riders represent more than half of boardings among all ESTA DAR services, making up respectively 36.2 percent and 32.5 percent of the ridership. Disabled ridership follows, accounting for 21.1 percent of ESTA DAR ridership. Attendant and youth riders represent the smallest proportion of DAR boardings, amounting to a total of 7.2 percent and 3 percent, respectively.

Table 14: Annual Ridership by Passenger Type

	Systemwide Passenger Trips		395 Routes, Mammoth Fixed Routes, and Town to Town Routes		Dial a Ride	
Fare Type	#	%	#	%	#	%
Adult (General)	944,656	84.1%	923,981	86.6%	20,675	36.2%
Senior	22,612	2.0%	4,091	0.4%	18,521	32.5%
Disabled	13,806	1.2%	1,757	0.2%	12,049	21.1%
Child	136,313	12.1%	134,615	12.6%	1,698	3.0%
Attendant	6,168	0.5%	2,071	0.2%	4,097	7.2%
Total Ridership	*1,123,555*		*1,066,515*		*57,040*	

Source: FY 2018-19 ESTA Ridership

Non-Emergency Medical Transportation (NEMT) Trip Statistics

The NEMT program provided $21,127.09 in mileage reimbursements for a total of 273 roundtrips during FY 2020-2021. This equates to an average cost of $77.38 per NEMT trip. These reimbursements were dispersed among 55 NEMT participants during the timeframe of the program. While NEMT destinations span all of California and Nevada, the most popular destinations include medical facilities in Carson City, Orange, Loma Linda, Los Angeles, Reno, and Sacramento.

ESTA TRANSIT CAPITAL ASSETS

Vehicle Fleet

As shown in Table 15, the ESTA program has a total of 54 vehicles in the fleet, including 36 designated for fixed route service only, and another 18 which are used in either fixed route or demand responsive service. The demand response vehicles have 14 to 16 seats with two wheelchair positions. The fixed route vehicles range in capacity from 20 to 43 seats, with two wheelchair positions.

Based on the age and mileage of the vehicles, 14 of the vehicles are due to reach the end of their expected life as defined by the Federal Transit Administration (FTA) during the plan period. Therefore, an aggressive capital replacement plan will be needed, although spare vehicles are used beyond their expected life span.

Table 15: ESTA Vehicle Fleet

#	Make	Model	Year	Mileage	Capacity (including driver)	Location	Purpose	Route	Useful Years Limit	Age	Est/ Replacement Date Years	Est/ Replacement Date Miles to Replacement
600	FORD	E-450	2010	132,292	18 OR 8+4	BISHOP	FR	LPX/MMX	7	10	2017	67,708
601	FORD	E-450	2012	71,994	16 OR 12+2	WALKER	FR/DAR	BPT-GARD	7	9	2019	128,006
602	FORD	E-450	2013	135,787	16 OR 12+2	MAMMOTH	FR/DAR	DAR	7	8	2020	64,213
603	FORD	E-450	2013	168,492	16 OR 12+2	MAMMOTH	FR/DAR	DAR	7	8	2020	31,508
604	FORD	E-450	2013	122,830	16 OR 12+2	LONE PINE	FR/DAR	LP DAR	7	8	2020	77,170
605	FORD	E-450	2013	140,472	16 OR 12+2	LONE PINE	FR/DAR	DAR	7	8	2020	59,528
606	FORD	E-450	2013	142,220	16 OR 12+2	BISHOP	FR/DAR	DAR	7	8	2020	57,780
607	FORD	E-450	2013	192,037	20 OR 16+2	MAMMOTH	FR	Purple	7	8	2020	7,963
608	FORD	E-450	2014	114,464	16 OR 12+2	BISHOP	FR/DAR	DAR	7	7	2021	85,536
609	FORD	E-450	2014	124,674	16 OR 12+2	Lone Pine	FR/DAR	DAR	7	7	2021	75,326
610	FORD	E-450	2014	127,773	16 OR 12+2	BISHOP	FR/DAR	DAR	7	7	2021	72,227
611	FORD	E-450	2014	101,619	16 OR 12+2	BISHOP	FR/DAR	DAR	7	7	2021	98,381
612	DAIMLER	SPRINTER-VAN	2014	91,554	14 or 7+2	BISHOP	FR/DAR	DAR	7	7	2021	8,446
613	DAIMLER	SPRINTER-VAN	2014	104,860	14 or 7+2	BISHOP	FR/DAR	DAR	7	7	2021	(4,860)
614	DAIMLER	SPRINTER-VAN	2014	86,577	14 or 7+2	BISHOP	FR/DAR	DAR	7	7	2021	13,423
615	DAIMLER	SPRINTER-VAN	2014	100,264	14 or 7+2	BISHOP	FR/DAR	DAR	7	7	2021	(264)
616	FORD	E-450	2015	146,417	20 OR 16+2	MAMMOTH	FR	Purple	7	6	2022	53,583
617	FORD	E-450	2016	65,760	16 OR 12+2	MAMMOTH	FR/DAR	Purple	7	5	2023	134,240
693	FORD	E-451	2008	182,913	16 OR 12+2	BISHOP	DAR	Bishop	7	5	2015	17,087
695	FORD	E-450	2008	164,010	16 OR 12+2	BISHOP	DAR	DAR	7	5	2015	35,990
697	FORD	E-450	2009	101,399	16 OR 12+2	WALKER	FR	Fixed Route	7	5	2016	98,601
698	FORD	E-450	2009	133,235	16 OR 12+2	BISHOP	DAR	DAR	7	5	2016	66,765
706	Blue Bird	Xcel 102	2008	111,877	33	MAMMOTH	FR	Fixed Route	12	13	2020	388,123
709	FORD	F-550	2012	242,075	21 or 17+2	BISHOP	FR	Trolley Routes	7	13	2019	(42,075)
710	FORD	F-550	2013	268,250	25 or 19+2	BISHOP	FR	LPX/MMX	7	8	2020	(68,250)
711	FORD	F-550	2013	253,912	21 or 17+2	BISHOP	FR	Fixed Route	7	8	2020	(53,912)
712	FORD	F-550	2013	251,284	25 or 19+2	BISHOP	FR	Mammoth Express	7	8	2020	(51,284)
713	Freightliner	Defender	2014	323,796	25 or 19+2	BISHOP	FR	395 RENO/LANC	7	7	2021	(123,796)
714	Freightliner	Defender	2014	303,136	25 or 19+2	BISHOP	FR	395 RENO/LANC	7	7	2021	(103,136)
715	FORD	F-550	2014	209,356	25 or 19+2	BISHOP	FR	395 RENO/LANC	7	7	2021	(9,356)
716	Freightliner	Defender	2019	133,980	25 or 19+2	BISHOP	FR	395 RENO/LANC	7	2	2026	66,020
717	Freightliner	Defender	2020	68,566	33 or 27+2	BISHOP	FR	395 RENO/LANC	7	1	2027	131,434
801	El Dorado	Axess	2012	147,647	37+2	MAMMOTH	FR	MMSA/Reds	12	9	2024	352,353
802	El Dorado	Axess	2012	165,119	37+2	MAMMOTH	FR	MMSA/Reds	12	9	2024	334,881
803	El Dorado	Axess	2012	86,341	37+2	MAMMOTH	FR	MMSA/Reds	12	9	2024	413,659
804	El Dorado	Axess	2012	169,958	37+2	MAMMOTH	FR	MMSA/Reds	12	9	2024	330,042
805	El Dorado	Axess	2012	145,270	37+2	MAMMOTH	FR	MMSA/Reds	12	9	2024	354,730
806	El Dorado	Axess	2012	146,596	37+2	MAMMOTH	FR	MMSA/Reds	12	9	2024	353,404
807	El Dorado	Axess	2012	130,117	37+2	MAMMOTH	FR	MMSA/Reds	12	9	2024	369,883
808	El Dorado	Axess	2012	175,210	37+2	MAMMOTH	FR	MMSA/Reds	12	9	2024	324,790
809	El Dorado	Axess	2013	112,633	37+2	MAMMOTH	FR	MMSA/Reds	12	8	2025	387,367
810	El Dorado	E-Z Rider II	2012	149,473	37+2	MAMMOTH	FR	MMSA/Reds	12	9	2024	350,527
811	El Dorado	E-Z Rider II	2012	128,324	37+2	MAMMOTH	FR	MMSA/Reds	12	9	2024	371,676
812	El Dorado	E-Z Rider II	2012	150,428	37+2	MAMMOTH	FR	MMSA/Reds	12	9	2024	349,572
900	Hometown Trolley	Villager	2016	84,571	26+2	MAMMOTH	FR	Trolley Routes	7	5	2023	265,429
901	SUPREME TROLLY	Classic America Trolly	2006	209,171	26+2	MAMMOTH	FR	Trolley Routes	7	15	2013	(9,171)
902	Hometown Trolley	Villager	2017	106,217	26+2	MAMMOTH	FR	Trolley Routes	7	4	2024	243,783
903	Hometown Trolley	Villager	2018	72,967	26+2	MAMMOTH	FR	Trolley Routes	7	3	2025	277,033
905	SUPREME TROLLY	Classic America Trolly	2006	179,778	26+2	MAMMOTH	FR	Trolley Routes	7	15	2013	20,222
906	SUPREME TROLLY	Classic America Trolly	2006	226,684	26+2	MAMMOTH	FR	Trolley Routes	7	15	2013	(26,684)
907	SUPREME TROLLY	Classic America Trolly	2006	207,221	26+2	MAMMOTH	FR	Trolley Routes	7	15	2013	(7,221)
908	SUPREME TROLLY	Classic America Trolly	2006	224,960	26+2	MAMMOTH	FR	Trolley Routes	7	15	2013	(24,960)
909	SUPREME TROLLY	Classic America Trolly	2006	224,960	26+2	MAMMOTH	FR	Trolley Routes	7	15	2013	(24,960)
904	Hometown Trolley	Villager	2020	10,843		Mammoth	FR	Trolley Routes	7	0	2027	189,157

Source: ESTA Vehicle List, Received 8/2021, Mileage taken 4/2021
Note: The 14 vehicles listed in red need replacement based on mileage.

Bus Stops and Shelters

Tables 16 and 17 present the location of ESTA bus shelters along the US 395 Routes and within Mammoth Lakes. At least one bus shelter is present in the major communities along US 395. In addition, ESTA owns

and operates a bus shelter located at TJ's Mercantile in Chalfant. As shown in Table 17, a number of shelters in Mammoth are owned and maintained by Caltrans who has expressed an interest in relinquishing the shelters to another entity.

Table 16: Bus Shelter Locations on US 395 Corridor

Community	Location
Lone Pine	McDonalds, 601 S. Main St
Independence	Post Office, 101 Edwards St
Independence	Court House, 168 Edwards St
Big Pine	South Bound Main St, 390 S Main St
Big Pine	North Bound Main St, 391 S. Main St
Bishop	Kmart/Vons, 1200 N Main St
Bishop	Behind Josephs Market, Warren St
Tom's Place	8180 Crowley Lake Dr
Crowley Lake	Community Center
Mammoth	McDonalds, 1 Sierra Park Dr
Lee Vining	Caltrans Maintenance Yard, Us 395
Bridgeport	121 Emigrant St
Walker	Walker Country Store 107700 US 395

Source: ESTA Bus Stop and Shelter List within Inyo and Mono Counties, 2021

Table 17: Bus Shelter Locations in the Town of Mammoth Lakes

Stop #	Description	Owned by
8	Old Mammoth Rd / Meridian / Carls	Caltrans
10	Old Mammoth Rd / Park and Ride	Town of Mammoth Lakes
11	Lake Mary Loop Rd / Pokonobe Lodge	Town of Mammoth Lakes
12	Main St. / Laurel Mt. Rd	Caltrans
13	Main St. / Post Office	Caltrans
14	Main St / Sierra Blvd	Caltrans
15	Main St. / Mountain	Caltrans
16	Main St / W of Frontage Rd / White Stag	Caltrans
18	Minaret West/Across from The Village	Town of Mammoth Lakes
48	Meridian Blvd/Obsidian	Town of Mammoth Lakes
94	Twin Lakes	Town of Mammoth Lakes

Source: ESTA Bus Stop and Shelter List within Inyo and Mono Counties, 2021

Operations and Maintenance Facilities

ESTA's primary operations, dispatch, and administrative facility is located at the Bishop Airport, just east of the City of Bishop. In 2021, ESTA leased a new temporary building located at 565 Airport Road. The building is 2,160 square feet and includes two restrooms, a kitchenette, five offices and a storage room. This building will serve ESTA until a permanent facility can be constructed.

In Mammoth Lakes, ESTA leases six bays and administration facilities, from Mammoth Lakes, at 210 Commerce Drive, to conduct the transit operations and store the vehicles used transit operations in Mammoth Lakes. This facility was recently expanded. There are other facilities used for vehicle storage in Walker and Lone Pine. All of the facilities are owned by other entities and leased by ESTA.

All maintenance for ESTA vehicles is performed by third-party sources. Various local vendors perform routine maintenance and warranty repairs for the vehicles outside of the Mammoth Lakes area. Vehicles within the Town of Mammoth Lakes are serviced by the Mammoth Lakes Public Works Department. ESTA utilizes various fuel stations belonging to the Commercial Fueling Network for routes along Bishop and the US 395. For fueling in Mammoth, ESTA vehicles are filled at town facilities using a magnetic key card which allows the costs to be invoiced by the town.

SUMMARY OF ESTA MARKETING EFFORTS

ESTA utilizes a variety of media to market the Local, Regional, and Dial-a-Ride services. Below are descriptions of the various marketing efforts:

Brochures

Brochures are updated both seasonally and annually to reflect changes to schedule and services. There is a flyer for each of the transit services provided, as described in more detail below:

- Bike & Ride: The flyer advertises the bike racks on commuter buses and vanpools in order to target commuter riders. The flyer is informative and references to the Clean Air Projects Program.

- Mammoth Fixed Routes: The flyers are updated prior to the summer and winter seasons yearly.

- US 395 Routes: The flyer displays information regarding the Reno and Lancaster routes, with information on intermediary stops. The flyer includes pictures of the seasonal landscape as well as the ESTA vehicles themselves. The flyer also notes snow chain capability on the vehicles. A second flyer advertises the 395 Route information with pictures of the vehicle fleet and 395 highway signs within the landscape.

- Dial-a-Ride: This marketing piece lists five reasons to utilize the DAR services, most of which target the general public. The flyer also includes pictures of two ESTA drivers and contact information to schedule a DAR.

- General Services: ESTA has also developed a general flyer which advertises the 395 services, DAR

and commuter services. This flyer displays the pictures of the ESTA fleet and drivers, as well as general schedule and contact information.

Radio Marketing

Radio marketing ads for ESTA include the following advertising messages:

- Information about the 395 routes and connections.
- Information about Mammoth Lakes Trolley extended hours.
- Information about Mammoth Express.
- Seasonal capabilities of ESTA transit, including information about snow chains.
- Reduced transportation costs for family and friends traveling to and from the same place on DAR.
- Free DAR ticket with roundtrip town ticket purchase.

ESTA SERVICES FINANCIAL CHARACTERISTICS

Revenues

Table 18 illustrates the breakdown of total FY 2018-19 ESTA revenues for both operating and capital purposes. As indicated, a total of $6,446,441 was received. For the fiscal year, the Transportation Development Act Local Transportation Fund (LTF) was the primary source of revenue, which totaled $1,279,563, accounting for 19.8 percent of the total revenue. This was followed by passenger fares (14.1 percent) and other agency grants (13.6 percent).

Expenses

ESTA's operating expenses by budget line item for FY 2018-19 are presented in Table 19. As shown, systemwide operating costs totaled $5,112,326 per the actual FY 2018-19 ESTA budget. Salaries and benefits account for 61.3 percent of operating expenses. This was followed by vehicle and equipment maintenance (15.4 percent) and fuel and lubricants (12.4 percent) of operating expenses.

Cost Allocation Model

When developing and evaluating service alternatives, it is useful to have a cost model that can accurately show the financial impact of any proposed change. A cost allocation model for public transit services allocates the total costs by service quantity (fixed, hours, and miles). Systemwide cost factors (cost per hour, cost per mile, and fixed costs) are then applied to the actual or proposed miles and hours for each route/service to estimate the operating cost of each service.

For the purpose of this study, our cost model is based on FY 2018-19 to illustrate a normal operational year pre-dating the impacts of covid. As shown in Table 19, The expense budget was divided into variable and fixed costs and distributed to each individual ESTA route.

As seen, total marginal costs vary route to route. Town to town routes have a marginal cost between $54 and $72 per hour while the Fixed Routes in Mammoth vary between $53 and $70 per hour. Naturally, the 395 Routes have the highest marginal cost per hour at nearly $75/hour (395 North) and $79/hour (395 South). DAR services have some of the lowest marginal costs varying between $36/hour and $72/hour.

Table 18: ESTA Transit Services Revenues

Fiscal Year 2018-19 Actual Budget

Source		Revenue	% of Total
Federal and State Funding			
LTF		$1,279,563	19.8%
STA Funding		$397,932	6.2%
Federal Funding		$453,002	7.0%
State Grants		$192,325	3.0%
Proposition 1B		$303,936	4.7%
	Subtotal	*$2,626,758*	*40.7%*
Other Funds			
Services and Fees		$2,001,369	31.0%
Passenger Fares		$910,458	14.1%
Interest from Treasury		$24,000	0.4%
Other Agency Grants		$878,855	13.6%
Miscellaneous Revenues		$5,000	0.1%
	Subtotal	*$3,819,682*	*59.3%*
	Total Revenue	**$6,446,441**	

Source: ESTA FY 2018-19 Budget

Passenger-Trips per Vehicle-Hour of Service

An important measure of service effectiveness is "efficiency," or productivity, defined as the number of one-way passenger-trips provided per vehicle service hour (Table 20). The major route average was 11.5 passenger-trips per vehicle service hour. The Mammoth Routes running during the winter season (Red, Blue, Green, and Yellow) had the highest ratio of passenger-trips per vehicle service hour, with 48, followed by Reds Meadow Shuttle, with 34.6. Bridgeport to Carson had the lowest with 0.6 passengers per vehicle service hour. The Walker DAR was the lowest amongst the DAR services with 0.8 passenger-trips per vehicle service hour. The Nite Rider has the greatest with 5 passengers per vehicle-service hour.

Table 19: ESTA Operating Cost Allocation Model

FY 2018-19

Line Item	Total	Variable	Fixed
Salaries, Benefits, and Insurance	$3,134,985	$2,330,695	$804,290
Fuel & Lubricants	$632,751	$632,751	
Vehicle Maintenance	$583,880	$583,880	
Professional Services	$151,000		$151,000
Utilities	$52,000		$52,000
Marketing/Advertising	$51,200		$51,200
Office Supplies and Equipment	$22,100		$22,100
Building Rental & Maintenance	$204,694		$204,694
Uniforms	$4,600	$4,600	
Employee Travel Expenses & Memberships	$7,300		$7,300
General Operating Expense	$51,830		$51,830
Mileage Reimbursement	$21,220		$21,220
Total Operating Expenditures	**$4,917,560**	**$3,551,926**	**$1,365,634**

Allocation of Costs to Route/Service

			Costs per Service Hour						
	Total Service Hours	Total Miles	Operational Salary, Benefits & Uniform	Vehicle Maintenance	Fuel	Total Marginal	Allocated Fixed	Total Allocated	Total Allocated Cost
Bishop DAR	11,250	129,100	$40.10	$3.72	$6.15	$49.97	$22.40	$72.37	$814,100
Night Rider	856	12,190	$37.09	$4.61	$7.63	$49.34	$22.40	$71.74	$61,400
Lone Pine Express	1,443	70,970	$41.17	$8.53	$21.96	$71.66	$22.40	$94.06	$135,700
Mammoth Express	1,244	58,420	$35.87	$8.15	$20.97	$64.98	$22.40	$87.38	$108,700
Bishop to Reno (395 North)	3,226	142,080	$42.24	$12.74	$19.67	$74.64	$22.40	$97.04	$313,000
Bishop to Lancaster (395 South)	2,637	128,768	$43.33	$14.12	$21.81	$79.26	$22.40	$101.66	$268,100
Benton to Bishop	416	8,320	$34.07	$4.63	$10.72	$49.41	$22.40	$71.81	$29,900
Lone Pine DAR	1,764	17,388	$36.20	$3.19	$6.60	$46.00	$22.40	$68.40	$120,700
Walker DAR	2,024	16,951	$34.07	$1.94	$2.24	$38.25	$22.40	$60.65	$122,800
Bridgeport to Carson City	408	10,914	$36.91	$6.19	$13.44	$56.53	$22.40	$78.93	$32,200
Mammoth Fixed Route	4,015	57,670	$36.53	$5.81	$8.25	$50.59	$22.40	$72.99	$293,000
Mammoth DAR	2,277	7,590	$32.72	$1.35	$2.23	$36.30	$22.40	$58.70	$133,700
Trolley	10,844	142,000	$36.12	$10.60	$7.98	$54.70	$22.40	$77.10	$836,100
Lakes Basin Shuttle	1,861	22,000	$36.50	$9.57	$7.31	$53.38	$22.40	$75.78	$141,000
Reds Meadow Shuttle	4,839	67,000	$37.70	$17.61	$13.91	$69.22	$22.40	$91.62	$443,400
MMSA	10,820	133,000	$40.53	$15.64	$12.35	$68.52	$22.40	$90.92	$983,800
June Lake to Mammoth	1,044	24,000	$32.68	$9.30	$12.32	$54.30	$22.40	$76.70	$80,100
Total	**60,967**	**1,048,361**							**$4,918,000**

Source: ESTA FY 2018-19 Budget

Notes: Budget does not include Contingencies, Capital Costs, or Depreciation

Passenger-Trips per Vehicle-Mile of Service

Given the very long lengths of some ESTA routes, the passenger-miles of service delivered for each hour of bus service should also be considered. Overall, the ESTA system averaged 0.9 passengers per mile. By this metric, the Mammoth winter routes are the most productive with 4 passengers per vehicle mile, followed by Reds Meadow route with 2.8. The Bridgeport to Carson route and the 395 Route south (Bishop to Lancaster) had the lowest passenger per mile with 0.03 and 0.05 passengers, respectively.

Table 20: ESTA System Performance FY 2018-19

Routes	Total Annual Service Hours	Total Annual Service Miles	Total Annual Passengers	Passenger per Hour	Passenger per Mile
Benton to Bishop	179	7,714	410	2.3	0.1
Bishop Creek Shuttle	276	8,716	603	2.2	0.1
Bridgeport to Carson City	308	7,041	198	0.6	0.03
Lone Pine Express	1,227	55,391	3,322	2.7	0.1
Bishop to Reno (395 North)	3,343	140,558	7,954	2.4	0.1
Bishop to Lancaster (395 South)	2,674	126,525	6,289	2.4	0.05
Mammoth Fixed Routes - Summer (Purple, Town Trolley, Lakes Basin) & Winter (Purple, evening and late night trolley)	16,060	199,704	381,712	23.8	1.9
Mammoth Fixed Routes - Winter (Red, Blue, Green, Yellow)	10,872	128,898	521,606	48.0	4.0
Mammoth Express	949	42,774	5,209	5.5	0.1
Reds Meadow Shuttle	3,785	46,780	130,914	34.6	2.8
Walker to Mammoth	804	15,984	2,123	2.6	0.1
Major Route Subtotal	40,479	780,085	1,060,340	26.2	1.4
Special Event Charters (Bluesapalooza)	0	0	0		
Mule Days	35	275	484	13.7	1.8
Other	183	1,586	5,691	31.2	3.6
Special Event Transit Subtotal	218	1,861	6,175	28.4	3.3
Bishop DAR	10,945	113,759	43,434	4.0	0.4
Lone Pine DAR	1,759	17,511	4,078	2.3	0.2
Mammoth DAR	2,096	7,290	4,052	1.9	0.6
Walker DAR	1,868	8,537	1,402	0.8	0.2
Nite Rider	810	11,146	4,074	5.0	0.4
Dial a Ride Service Subtotal	17,477	158,243	57,040	3.3	0.4
Systemwide	58,174	940,189	1,123,555	19.3	1.2

Source: ESTA FY 2018-19 service data.

Chapter 5
DRIVER RETENTION AND MAINTENANCE PROGRAM

This chapter presents a discussion of two key factors impacting ESTA's current operations: the ability to retain staff and the provision of maintenance for vehicles based in Bishop.

Staff Recruiting and Retention

ESTA has long been challenged by recruiting and retaining staff -- particularly drivers – and this challenge has increased dramatically (and across the industry) since the start of the pandemic. Nationally, the shortage of truck drivers has increased the competition for drivers while other factors such as the limitations on in-person schooling limits individual's ability to be part of the workforce. For ESTA, the limited labor pool and high cost of housing that come from a remote recreation-based economy add to the challenges. The "seasonality" of the need for transit drivers to staff peak summer and peak winter services also adds to the challenge to ESTA management.

The total ESTA payroll varies significantly but is typically around 65 staff members in peak seasons, with the majority (around 60 percent) operating out of the Mammoth Lakes base, three operating out of Lone Pine, one operating out of Walker and the remainder operating out of the Bishop base. At present, approximately 25 percent of positions turn over per year. This is despite the fact that hourly wages are roughly $16.40 to $20.00, with the availability of benefits including medical/dental/vision insurance and eligibility for retirement benefits.

High levels of staff turnover have a number of negative impacts to a transit organization:

- Training costs are increased. Paid hours for new hires during training totals approximately $70,000 in annual costs. This is on top of management staff time required for conducting the training sessions, as well as the modest costs incurred for training supplies.

- The ability to provide service is limited. During the summer of 2021, only 3 of the 8 planned Reds Meadows Shuttle buses could be operated. As this service generates a net revenue (reflecting the high demand and $15 adult fare), the limited service significantly reduced funding intended for vehicle replacement as well as road repairs.

- Crash rates tend to be increased by a driver workforce with limited experience … particularly given the need to drive in sometimes extreme winter conditions.

- New drivers are less knowledgeable about the community and are not as good at providing information to visiting riders.

Review of Professional Literature and Input From Peer Systems

In reviewing resources such as the Transit Manager's Toolkit (2020 update), a list of best practices for ESTA in recruiting high quality drivers and employees are recommended. As a part of a successful driver recruitment process, ESTA should consider the following:

- Remain knowledgeable of wages and benefit packages being offered in comparative transit agencies located within regions of similar costs of living.
- Appeal to not only the standard workforce seeking employment through job opening sites such as Craigslist, Monster, Indeed, etc. but also aim to appeal to those wanting to give back to their communities through posting on social and environmental job opening sites such as Idealist.
- Continue an employee referral program that rewards employees who aid in successful recruits.
- Produce a job preview video that features current drivers answering day-in-the-life questions about their positions and the pros of working for ESTA to be shared on the website hiring page and social media.
- Participate in local and regional career days.
- Continue to partner with local Veterans organizations.

ESTA currently provides a signing bonus. The Tahoe Transportation District has also implemented a $3,000 hiring bonus for new hires, but this unfortunately has not led to an increase in applications or successful hires.

Once a driver has been successfully recruited, there are various ways in which transit agencies can create a working environment that encourages retention year-over-year. Possible retention strategies include the following in addition to salary and benefits packages:

- Develop a mentor program and assigning existing employees to new hires will create a sense of teamwork and belonging amongst an organization.
- Consider providing a bonus at the end of each season (such as an extra dollar per hour) for employees that stay through the full season. For example, Mountain Transit offers a $200 bonus at the end of the winter season.
- Continue to provide special recognition on employee milestones (employment anniversaries, birthdays, above and beyond service) with gift cards and other appreciative gifts.
- Some resort transit operators have taken the additional step of providing housing for transit drivers. Park City developed apartment units as part of an expansion of their transit operations facility. In addition, the START system in Jackson, Wyoming is housing seasonal transit employees in Town-owned residences.

In addition, as many transit agencies struggle to retain drivers, there are opportunities for transit agencies to learn from each other in what has and hasn't been successful in recent years. Continuing to pursue opportunities to learn from others through participation in national and state-wide transportation and transit conferences coordinated by California Association for Coordinated Transportation (CalAct) and the American Public Transportation Association (APTA) could also aid in continued knowledge regarding driver recruitment and retention best practices. Continued education can also be accessed via online opportunities such as the Community Transportation Association of America's online course called "Recruiting, Building, and Retaining a Sustainable Driver Workforce" and similar programs.

Conclusions

Key recommendations for ESTA to pursue in recruiting and retaining staff are as follows:

- Strive to provide more year-round positions, rather than seasonal positions. For example, shared positions can be developed by which seasonal drivers are used to provide maintenance functions in the off-seasons to create a year-round position. These maintenance functions could include the following:
    - Facility inspections and upkeep
    - Bishop vehicle inspections and shuttling to/from maintenance contractors
    - Minor vehicle repairs
    - Vehicle Spreadsheet maintenance
    - Tire Chain maintenance

Given the costs associated with continually recruiting and training seasonal workers, it is worth incurring some level of lower work efficiency in the off-seasons in order to result in year-round positions.

- Work to enhance ESTA as an organization that provides a career that an employee can be proud of, rather than simply a job. This includes stressing the long-term benefits of an organization that provides a high quality of health insurance and retirement options, as well as an organization that is thought highly of in the region. In a tight labor market, it is easy for a private firm looking for a short-term worker to outbid a public agency simply on hourly rate, so focusing on ESTA as a longer-term position with benefits is a viable strategy.

- Strive to provide work shifts that can accommodate employee's other responsibilities such as childcare.

- Continue to show a high level of appreciation for existing employees and their contributions to the organization.

- Continue to pursue opportunities to provide housing for seasonal employees.

- Stay current on the transit industry's best practices regarding staffing issues.

- If other efforts are not successful and seasonal driver issues worsen, consider contracting for seasonal operations.

BISHOP VEHICLE MAINTENANCE PROGRAM

As ESTA services have grown over the years, vehicle maintenance for the fleet based in Bishop has always been provided by private shops, rather than through an in-house maintenance facility and staff. While this was appropriate for a smaller transit program, it is worthwhile to consider whether bringing some or all of the vehicle maintenance functions in-house would be appropriate. At present, the lack of an in-house vehicle maintenance function has several disadvantages:

- Time required for maintenance can be excessive. One example is a recent repair on a wheelchair lift, which left a vehicle in the private shop for three months.

- To accommodate the long periods that vehicles are not available, ESTA needs to maintain additional spare vehicles in the fleet (roughly 70 percent of the peak buses needed on any one day, compared with an industry standard of 20 to 30 percent "spare ratio"). In addition to increasing the need for capital funds, this increases ongoing operating costs (which are a greater local responsibility) such as insurance costs.

- Staff spends time shuttling vehicles to and from shops (which often requires two staffers), taking time away from other duties.

- ESTA operations are dependent on the availability of quality private repair shops, which could impact operations.

- The vehicles vary in terms of the dependability. How much this is due to the quality of vehicle maintenance provided versus the older age of the fleet is debatable. Another factor that tends to increase maintenance costs (sometimes dramatically) is the age of the fleet. Of the 16 vehicles currently based in Bishop, 8 (largely the older Freightliners and Ford F-550s) are over the FTA typical useful life mileage.

As a basis for this review, LSC summarized the maintenance invoice data for those vehicles based in Bishop over the past six fiscal years, as shown in Table 21. As indicated, these invoices totaled an average of $144,672, ranging from a low of $74,130 to a high of $195,715. In recent years, the large majority of the work has been conducted either at Britt's Diesel and Auto Repair (68 percent of all expenses) and Bishop Ford (25 percent of all expenses). A sample of vehicle maintenance invoices were also reviewed to identify the proportion generated by labor versus parts purchase.

This indicated that 50 percent of charges were for labor, 47 percent for parts and the remaining 3 percent for tax, hazardous waste fees and other miscellaneous fees. Note that neither of the two major service

shops marked up the cost for parts. This indicates that the labor costs associated with vehicle maintenance averages approximately $72,000 per year.

Table 21: Summary of Bishop Vehicle Maintenance Activity

Vendor	Fiscal Year FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 20-21 %
Number of Annual Work Activities							
Bishop Ford	175	130	95	68	71	99	34%
Britts	68	126	189	195	215	175	61%
AZ Bus	-	-	-	-	-	3	1%
Bisglass	1	-	-	-	-	4	1%
Inyobody	2	-	-	-	-	-	-
Rodpaul	4	1	-	-	-	-	-
Steve	2	4	-	-	-	-	-
Teds	11	6	-	4	-	-	-
TOML	1	-	-	-	-	-	-
Other	2	3	6	5	7	6	2%
Total	**266**	**270**	**290**	**272**	**293**	**287**	**100%**

Total Annual Expenditures								
Bishop Ford	$ 32,548	$ 28,822	$ 47,485	$ 42,329	$ 28,672	$ 42,642	25%	
Britts	$ 35,668	$ 73,787	$ 104,971	$ 151,826	$ 140,517	$ 115,077	68%	
AZ Bus	-	-	-	-	-	$ 8,211	5%	
Bisglass	$ 311	-	-	-	-	$ 929	1%	
Inyobody	$ 3,413	-	-	-	-	-	-	
Rodpaul	$ 585	$ 1,011	-	-	-	-	-	
Steve	-	$ 331	-	-	-	-	-	
Teds	$ 1,402	$ 605	-	$ 373	-	-	-	
TOML	$ 2	-	-	-	-	-	-	
Other	$ 200	$ 466	$ 716	$ 1,187	$ 2,550	$ 1,396	1%	**Average**
Total	**$ 74,130**	**$ 105,022**	**$ 153,172**	**$ 195,715**	**$ 171,739**	**$ 168,255**	**100%**	**$ 144,672**

The total annual mileage accrued by the Bishop-based ESTA fleet over recent years is approximately 473,000. Dividing the average invoices by this figure yields an average maintenance cost of $0.31 per mile. As a point of comparison, National Transit Database (NTD) data was analyzed for smaller transit systems in California that are required to make full reports to the NTD system. Those operating less than 25 buses at peak time were reviewed, consisting of the transit systems serving the cities of Commerce, Laguna Beach, Petaluma, Redondo Beach, San Luis Obispo, Tulare and Turlock as well as Kings County. As shown in Table 22, annual maintenance costs ranged from a low of $170,500 to a high of $802,200, while annual vehicle-miles of service ranged from 240,500 to 762,300. Maintenance costs per mile ranged from a low of $0.59 (San Luis Obispo) to a high of $1.30 (Laguna Beach), with an average of $1.02. Note that these figures exclude fuel, lube and tires, but does include all wages, salaries and expenses associated with keeping vehicles maintained.

Table 22: Vehicle Operating Costs for Smaller California Transit Systems

Transit System	City	Vehicles Operated in Maximum Service	Annual Vehicle Maintenance Costs	Annual Vehicle Revenue Miles	Vehicle Maintenance Cost per Revenue Mile
City of Tulare, dba: Tulare Intermodal Express	Tulare	10	$704,253	562,428	$1.25
City of Turlock, dba: Turlock Transit	Turlock	10	$351,986	286,766	$1.23
City of Redondo Beach, dba: Beach Cities Transit	Redondo Beach	14	$305,242	386,315	$0.79
City of San Luis Obispo	San Luis Obispo	15	$261,290	441,483	$0.59
City of Commerce, dba: City of Commerce Municipal Business	Commerce	15	$471,174	376,920	$1.25
City of Petaluma, dba: Petaluma Transit	Petaluma	15	$170,549	240,543	$0.71
Kings County Area Public Transit Agency	Hanford	22	$802,163	762,268	$1.05
City of Laguna Beach, dba: Laguna Beach Transit	Laguna Beach	23	$475,274	365,581	$1.30
				Average	**$1.02**

Source: National Transit Database, 2019

Providing a Full Maintenance Shop in Bishop

One option would be for ESTA to develop a full maintenance shop, able to accommodate almost all inspection and maintenance functions (other than specialty services such as glass, body repair and paint). This would have the advantages of making ESTA less dependent on outside contractors, and potentially improve the dependability of the vehicles. However, making this shift would be a substantial effort and investment:

- A full maintenance facility, including two bus bays (appropriate for the size of the Bishop-based fleet), parts storage, office space and space for specialized equipment, that would be on the order of 4,500 square feet. Construction, design and permitting costs can vary significantly depending on the level of finish, location, and local requirements, but a planning-level figure of $400 per square foot is reasonable. This indicates that a facility could cost on the order of $1.8 Million (excluding land costs). Even if Federal or State funding can be generated to fund 80 percent of this cost, the local funds needed would be on the order of $360,000.

- Costs would be incurred for furnishing the facility and for developing a parts inventory, which could easily reach $100,000.

- Expanding the ESTA facility footprint would require approval by the LA Department of Water and Power.

- The minimum staffing for a full facility would be approximately 3.5 Full Time Equivalents, consisting of two full mechanics, a mechanic technician and a supervisor. Workplace safety standards require two persons on-site whenever a vehicle is lifted, so that the second person can summon help in the event of an accident. Including benefits, these positions would cost ESTA on

the order of $250,000 per year … or roughly $180,000 more than current costs. Recruiting and retaining this staff would also be a challenge.

- Costs would also be incurred for facility maintenance, utilities and hazardous waste disposal fees. These would total on the order of $50,000 per year.

- Other transit services that have brought vehicle maintenance in-house (particularly in smaller communities) have dealt with the negative reaction of the local business community that sees it as impacting private businesses.

In conclusion, developing a full facility would be a substantial capital and operating financial impact on ESTA, and is not recommended. As an aside, a possible option would be to develop a joint vehicle facility with one or more other public sector fleets, such as the school district. Given the various funding sources and their requirements as well as differing timing as to when existing facilities need replacement, however, successfully developing joint facilities is a rare occurrence.

Providing a Limited Shop in Bishop for Inspections and Light Repairs

Another option would be to develop a light maintenance facility consisting of a single bay staffed with a Maintenance Technician (rather than a full Mechanic) to conduct inspections and simple light repairs, such as the following:

- Preventive Maintenance Inspections
- Wiper Blade Replacement

This facility would be approximately 1,500 square feet in floor area, and cost on the order of $600,000. It would be typically staffed by a single Maintenance Technician, with a second ESTA staffer on-site during potentially hazardous activities such as working under a lift.

To assess the viability of this option, 2020 Bishop vehicle repair invoices were reviewed to identify the number and value of individual work orders that could be provided in-house with a light maintenance shop. Of the total 166 work orders, 133 (68 percent) fell into these light maintenance categories. By value, of the total of $158,000 in vehicle repair costs, $27,500 (17 percent) were for light maintenance functions. (It stands to reason that more involved maintenance tasks resulted in a higher proportion of the total costs).

This cost savings is not sufficient to cover the cost of a full-time Maintenance Technician but could pay for a part-time position or could also be used to provide similar services to vehicles rotated from other ESTA operating bases. In addition, the ability to better control the scheduling of a majority of the maintenance tasks, the convenience of avoiding the shuttling to outside repair contractors and the availability of staff onsite for minor issues could make this a net benefit to ESTA.

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Chapter 6
PEER TRANSIT SERVICE REVIEW

A "peer analysis" is a useful tool in comparing a transit program with other, similar programs. This provides context for the ridership and performance figures, and helps to identify areas of relative strength and weakness. This discussion first presents the peer systems and their routes for comparison, followed by recent data and analysis by each type of transit service provided by ESTA: fixed route, inter-regional, and Dial-a-Ride.

PEER TRANSIT OPERATORS

Operating data was collected for eight transit services serving similar resort regions, providing fixed route, inter-regional transit, and demand response services. These peer systems were chosen based on the following characteristics:

- Service areas with similar population (4,000 to 36,000 depending on type of transit service being analyzed).
- Transit service of a similar scope (fixed route, inter-regional, and Dial-a-Ride).
- Absence of a major university or four-year college that impacts demand for transit.
- A location not immediately adjacent to a major metropolitan area.
- A location in the western U.S.

A brief overview of each system by type of service follows:

1. Park City Transit (Park City, Utah) – Park City Transit provides year-round fixed route services to 982,000 passengers a year. No fares are charged. The service operates between 6:00 AM and 11:00 PM seven days a week.

2. Mountain Transit Local Routes (Big Bear, California) – Big Bear is a small mountain resort community located just outside of San Bernardino in southern California. Big Bear has a slightly lower population than Mammoth Lakes. It provides service both within the resort area, as well as longer distance service to San Bernadino. Mountain Transit has recently signed an agreement with the Big Bear Ski Resort to provide free transit during the winter.

3. Tahoe Area Regional Transit (Placer and Nevada Counties) – Tahoe Area Regional Transit (TART) provides transit services to 376,000 passengers annually between the Town of Truckee, Tahoe City, Tahoma, Kings Beach, and Incline Village. TART also serves Palisades Tahoe and North Star Ski Areas and operates between 6:00 AM and 10:30 PM seven days a week. While both Placer County and the Town of Truckee provide services branded as TART, this review focuses only on the larger service operated by Placer County.

4. Tahoe Transportation District Local Routes (South Lake Tahoe, California) – The Tahoe Transportation District (TTD) provides transit services within South Lake Tahoe, as well as service between South Lake Tahoe and Minden/Gardnerville and on to Carson City. This region is known for similar mountain resort activities to Mammoth Lakes, though its population is much greater than Mammoth Lakes. TTD provides service to 811,000 passengers per year and operates daily between 6:30 AM and 8:00 PM.

5. Southern Teton Area Rapid Transit (Jackson, Wyoming) – The Southern Teton Area Rapid Transit (START) provides services within Jackson, Wyoming as well as the greater Teton County region and Jackson Hole Ski Resort. START Town Shuttle and Circulator routes provide service to 477,000 passengers annually and operates between 6:00 AM and 9:00 PM daily.

6. Modoc Transportation Agency's Sage Stage (Modoc and Lassen Counties, California) – Modoc County's Sage State provides services between Alturas and Susanville California to Reno Nevada. The Sage Stage operates Monday, Wednesday, and Friday leaving Alturas at 8:00 AM, arriving in Reno at Noon, and returning to Alturas at 5:30 PM. The service provides inter-regional transit to 1,300 passengers each year.

7. Redwood Coast Transit (Del Norte County, California) – Redwood Coast Transit provide fixed route services in Crescent City as well as inter-regional services between Del Norte County towns and south to Arcata along the Northern California coast. Redwood Coast Transit serves 110,000 passengers annually. Their inter-regional route (Route 20) runs between 6:45 AM to 7:05 PM.

8. Mountain Rides (Ketchum Valley, Idaho) – Mountain Rides provides fixed route and inter-regional services throughout the Ketchum and Sun Valley regions of Idaho. The Blue Route serves around 214,000 passengers each year and operates 7:30 AM and 6:00 PM. The Valley Route (providing service south to Hailey and Bellevue) serves about 178,000 passengers annually and operates between 6:00 AM and 11:00 PM.

Data was collected for FY 2018-19 for each specific transit service analyzed below. The following provides a summary of each peer transit system based on type of service provided.

Fixed Route Services

As shown in Table 23, ESTA's Mammoth fixed routes serve the second highest number of passengers annually of all the peer transit providers, second only behind Park City Transit. Mammoth's fixed routes provide less vehicle hours than the peer average (ranked fourth out of six service providers) while also providing more vehicle service miles than the peer average. With a small service area population and high annual ridership, it is clear that ESTA serves more visitors annually than other regions. The bottom portion of Table 23 presents a performance analysis of each system. Reviewing this table indicates the following:

- The **cost per vehicle-hour of service** of peer transit systems ranges between $53.20 (START) and $172.02 (TART). At $82.28, Mammoth fixed routes are 17 percent below the peer average and is the third most efficient provider of transit service.

- The **annual vehicle-service-hours per capita** provided by the Mammoth fixed routes is 3.1, third out of the six systems and 24 percent above the peer average.

- Mammoth fixed route service generates a very high number of **passenger trips per vehicle-hour of service** (known as the service productivity). At 35.2 passengers per vehicle-hour, Mammoth fixed route service is the most productive of the peer systems and is 102 percent above the peer average.

- Similarly, Mammoth fixed routes serve a relatively high number of **passenger-trips per vehicle-mile of service,** coming in just behind TART at 56 percent above the peer average.

- Mammoth fixed route's **cost per passenger-trip**, at $2.34, is the lowest of any of the peer systems and is a full 69 percent below the peer average. This is a very positive indicator of the cost-effectiveness of the ESTA fixed route service.

Inter-Regional Services

ESTA's inter-regional service consists of the routes between communities along US 395. As illustrated in Table 24, ESTA's US 395 serves the third highest number of passengers annually of all the peer transit providers, coming behind Redwood Coast Transit and Mountain Rides. In this analysis, the service area populations were very similar (between 25,812 people and 35,473 people).

The bottom portion of Table 24 presents a performance analysis of each system. A review of this indicates the following:

- The **cost per vehicle-hour of service** ranges between $73.46 (Redwood Coast Transit) and $130.91 (Modoc Sage Stage). At $80.21 the US 395 route is 15 percent lower than the peer average ($94.92) and is the second most efficient provider of transit service amongst the five transit services. Note that ESTA's services have the higher average operating miles per hour (45 miles per hour), which tends to increase overall cost per hour.

- The **annual vehicle-service-hours per capita** provided by US 395 route is 0.23, third out of the five systems and 26 percent below the peer average. ESTA operates 18 miles per passenger-trip (second only behind Modoc Sage Stage), reflecting the long trip distances.

Table 23: ESTA Mammoth Fixed Route Peer Analysis (FY 2018-19)

Transit System	City	Input Data: Annual Ridership	Vehicle Service Hours	Vehicle Service Miles	Service Area Population	Annual Operating Costs [2]	Fare Revenues
ESTA - Mammoth Fixed Routes (1)	**Inyo & Mono Counties**	**903,318**	**25,678**	**328,602**	**8,169**	**$2,112,900**	**$0**
Park City Transit	Park City, UT	982,237	35,414	462,108	8,375	$3,646,310	$0
Mountain Transit Big Bear Fixed Routes	Big Bear, CA	131,886	19,319	311,157	5,438	$1,693,549	$282,151
Tahoe Area Regional Transit	Placer & Nevada Counties	376,304	37,978	130,788	32,917	$6,533,017	$0
Tahoe Transportation District	South Lake Tahoe, CA	811,060	34,140	405,678	36,072	$3,717,007	$415,084
Southern Teton Area Rapid Transit - Town Shuttle	Teton County, WY	477,501	24,895	243,030	10,553	$1,324,377	$0
Mountain Rides Blue Route	Ketchum, Idaho	214,100	12,412	186,000	4,144	$868,840	$0
Peer Average		**555,798**	**32,338**	**259,832**	**26,514**	**$3,858,134**	**$138,361**
ESTA Mammoth FR Rank		**2**	**4**	**3**	**5**	**6**	**3**

	Performance Measures: Annual Vehicle Service Hours per Capita	Annual Ridership per Capita	Passengers per Vehicle-Hour	Passengers per Mile	Operating Cost per Hour	Cost per Psgr-Trip	Subsidy Per Psgr-Trip	Farebox Ratio
ESTA - Mammoth FR	**3.1**	**110.6**	**35.2**	**2.75**	**$82.28**	**$2.34**	**$2/34**	**0.0%**
Park City Transit	4.2	117.3	27.7	2.13	$102.96	$3.71	$3.71	0.0%
Mountain Transit Local Routes	3.6	24.3	6.8	0.42	$87.66	$12.84	$10.70	16.7%
Tahoe Area Regional Transit	1.2	11.4	9.9	2.88	$172.02	$17.36	$17.36	0.0%
Tahoe Transportation Distrrict	0.9	22.5	23.8	2.00	$108.88	$4.58	$4.07	11.2%
Southern Teton Area Rapid Transit - Town Shuttle	2.4	45.2	19.2	1.96	$53.20	$2.77	$2.77	0.0%
Mountain Rides Blue Route	3.0	51.7	17.2	1.15	$70.00	$4.06	$4.06	0.0%
Peer Average	**2.5**	**45.4**	**17.4**	**1.8**	**$99.12**	**$7.55**	**$7.11**	**0.0**
ESTA Mammoth FR Percent of Peer Average	**124%**	**244%**	**202%**	**156%**	**83%**	**31%**	**33%**	**0%**
ESTA Mammoth FR Rank (1 = Best)	**3**	**2**	**1**	**2**	**3**	**1**	**1**	**1**

Source: FY 2018-19 data taken from transit representatives and Short Range Transit Plans

Note 1: Includes Fixed Route and Trolley services. Note 2: Total allocated costs, with fixed costs allocated based on proportion of vehicle hours.

Table 24: US 395 Route Peer Analysis (FY 2018-19)

Transit System	City	Input Data: Annual Ridership	Vehicle Service Hours	Vehicle Service Miles	Service Area Population	Annual Operating Costs [1]	Fare Revenues
ESTA - US 395	**Inyo & Mono Counties**	**17,565**	**7,245**	**322,474**	**31,876**	**$581,100**	**$466,303**
Modoc Transportation Agency's Sage Stage	Modoc & Lassen Counties	1,358	1,501	59,964	35,473	$196,503	$32,597
Redwood Coast Transit Authority - Route 20	Del Norte County	110,648	17,008	369,263	27,812	$1,249,408	$164,909
Mountain Transit - Bear Valley to San Bernardino (Rt 5	Bear Valley, California	9,647	3,753	92,895	34,181	$346,605	$87,719
Mountain Rides Valley Route	Ketchum Idaho	178,600	11,900	249,000	25,812	$987,000	$0
Peer Average		**75,063**	**8,541**	**192,781**	**30,820**	**$694,879**	**$71,306**
ESTA US 395 Rank		**3**	**3**	**2**	**3**	**3**	**1**

	Performance Measures: Annual Vehicle Service Hours per Capita	Annual Ridership per Capita	Passengers per Vehicle-Hour	Passengers per Mile	Operating Cost per Hour	Cost per Psgr-Trip	Subsidy Per Psgr-Trip	Farebox Ratio
ESTA - US 395	**0.23**	**0.55**	**2.4**	**0.05**	**$80.21**	**$33.08**	**$26.55**	80.2%
Modoc Transportation Agency's Sage Stage	0.04	0.04	0.9	0.02	$130.91	$144.70	$120.70	16.6%
Redwood Coast Transit Authority - Route 20	0.61	3.98	6.5	0.30	$73.46	$11.29	$9.80	13.2%
Mountain Transit - Bear Valley to San Bernardino	0.11	0.28	2.6	0.10	$92.35	$35.93	$26.84	25.3%
Mountain Rides (Ketchum, Idaho) Valley Route	0.46	6.92	15.0	0.72	$82.94	$5.53	$5.53	0.0%
Peer Average	**0.31**	**2.80**	**6.2**	**0.29**	**$94.92**	**$49.36**	**$40.72**	**13.8%**
ESTA US 395 Percent of Peer Average	**74%**	**20%**	**39%**	**19%**	**85%**	**67%**	**65%**	**583%**
ESTA US 395 Rank (1 = Best)	**3**	**3**	**4**	**4**	**2**	**3**	**3**	**5**

Source: FY 2018-19 data taken from transit representatives and Short Range Transit Plans

Note 1: Total allocated costs, with fixed costs allocated based on proportion of vehicle hours.

- The US 395 route service generates a somewhat low number of **passenger trips per vehicle-hour of service** (known as the service productivity). At 2.4 passengers per vehicle hour, the service is 61 percent below the peer average.

- Similarly, the US 395 route serves a relatively low number of **passenger-trips per vehicle-mile of service,** coming in at 81 percent below the peer average.

- The US 395 route's **cost per passenger-trip**, at $33.08, which is 33 percent below the peer average of $49.36.

- Finally, the "farebox ratio" is the proportion of operating costs that are covered by the passenger fares. The peer systems range from a low of 0 percent (Mountain Rides) to a high of 80.2 percent for ESTA US 395 routes. Due to receiving the greatest amount of fare revenue, US 395 routes have a farebox ratio that is 583 percent greater than the peer average (13.8 percent).

DIAL-A-RIDE SERVICES

A similar peer analysis was conducted for the Bishop Dial-a-Ride (DAR) services operated by ESTA and each peer transit service. As shown in the top portion of Table 25, a review of the characteristics of the various services indicates the following:

- Service levels are fairly high, with annual vehicle service-hours and service-miles greater than the peer averages.

- Annual operating costs and fare revenues are relatively high compared to most of its peers, except when compared to El Dorado Transit.

- Annual Bishop DAR ridership ranks highly out of the five systems, with an annual ridership being 21,000 passengers greater than the peer average.

The peer performance analysis for the demand response services, shown in the bottom portion of Table 25, indicates the following:

- Bishop DAR is very cost-efficient with regards to the **operating cost per vehicle service-hour** ranking first (lowest) and 62 percent below the peer average $74.38.

- The **annual ridership per capita**, at 11.6 trips per person per year, is roughly 11 times higher than the peer average of 1.09.

- The productivity (**passenger-trips per vehicle service-hour**) of Bishop DAR is the second highest of all the peers, at 4 passengers per hour. This is 13 percent higher than the peer average of 3.5 and is second only to the much smaller DAR program in Susanville (Lassen County).

- Similarly, the **passenger-trips per vehicle-service-mile** is the second highest of the peers, and 19 percent below the peer average.

- The **operating cost per passenger-trip** for Bishop DAR is $18.74—the second lowest of the peer systems, and 44 percent below the peer average of $42.48.

- Bishop DAR ranks second with regards to the **subsidy per passenger-trip**, requiring $16.48 compared to a peer average of $37.79.

- The **farebox ratio** for Bishop DAR, at 12.1 percent, is 12 percent below the peer average of 12.7 percent.

Overall, this analysis indicates that the Bishop DAR is very efficient with regards to the costs of serving passengers, with operating costs and subsidy per trip much lower than the peer average. This is reflected in the relatively high passenger-trips per service-hour (second from the highest) and having the lowest cost per service-hour (ranking first amongst its peers). It benefits from the fact that the ESTA service is open to the general public, while most of the peer systems are limited to seniors and persons with disabilities.

Table 25: ESTA Bishop DAR Peer Analysis

	City	Input Data: Annual Ridership	Vehicle Service Hours	Vehicle Service Miles	Service Area Population[1]	Annual Operating Costs	Fare Revenues
ESTA Bishop DAR	**Bishop, CA**	**43,434**	**10,945**	**113,759**	**3,745**	**$814,100**	**$98,123**
Lassen Rural Bus DAR	Susanville, CA	21,791	3,378	15,897	15,064	$297,647	$56,277
Tahoe Transportation District DAR	South Lake Tahoe, CA	16,843	6,020	75,866	21,939	$724,754	$71,200
TART Truckee DAR	Truckee, CA	7,171	3,344	44,734	16,474	$424,759	$2,522
El Dorado Transit DAR	El Dorado County, CA	42,568	16,041	308,072	25,000	$2,298,860	$494,763
Peer Average		**22,093**	**7,196**	**111,142**	**19,619**	**$936,505**	**$156,191**
ESTA US 395 Rank		**1**	**2**	**2**	**5**	**2**	**2**

	Performance Measures: Annual Vehicle Service Hours per Capita	Annual Ridership per Capita	Passengers per Vehicle-Hour	Passengers per Mile	Operating Cost per Hour	Cost per Psgr-Trip	Subsidy Per Psgr-Trip	Farebox Ratio
ESTA Bishop DAR	**2.92**	**11.60**	**4.0**	**0.38**	$74.38	$18.74	$16.48	12.1%
Lassen Rural Bus DAR	0.22	1.45	6.5	1.37	$88.11	$13.66	$11.08	18.9%
Tahoe Transportation District DAR	0.27	0.77	2.8	0.22	$120.39	$43.03	$38.80	9.8%
TART Truckee DAR	0.20	0.44	2.1	0.16	$127.02	$59.23	$58.88	0.6%
El Dorado Transit DAR	0.64	1.70	2.7	0.14	$143.31	$54.00	$42.38	21.5%
Peer Average	**0.34**	**1.09**	**3.5**	**0.47**	**$119.71**	**$42.48**	**$37.79**	**12.7%**
ESTA US 395 Percent of Peer Average	**870%**	**1066%**	**113%**	**81%**	**62%**	**44%**	**44%**	**95%**
ESTA US 395 Rank (1 = Best)	**1**	**1**	**2**	**2**	**1**	**2**	**2**	**3**

Source: FY 2018-19 data taken from transit representatives and Short Range Transit Plans

Chapter 7

SUMMARY OF PUBLIC OUTREACH EFFORTS

Public outreach is an essential part of the planning process. During the development of this plan, multiple public outreach efforts were conducted. These efforts encouraged insightful conversations and allowed the opportunity to collect meaningful data and feedback regarding transportation in Inyo and Mono Counties and public perceptions of ESTA transit services.

PUBLIC SURVEYS

In order to gain insight into community needs, travel patterns, and opinions towards public transit in Inyo and Mono Counties, two separate public outreach efforts were conducted; the summer effort was implemented during September and October 2021 and the winter effort was implemented during February and March 2022. By conducting two separate public outreach efforts, one in the summer and one in the winter, the data collected paints a more complete picture of how public transit is utilized in Inyo and Mono Counties throughout the entire year.

The summer and winter outreach efforts each consisted of both an online community survey and onboard passenger surveys, some of which were specified for the type of transportation service. The summer surveys are summarized in depth in Appendix A and the winter surveys are summarized in Appendix B. This section provides a brief summary of the findings and highlights from both of these public outreach campaigns.

SUMMER SURVEYS

Online Community Survey

The summer online community survey consisted of 17 questions. 95 individuals responded to the survey; highlights from their responses are analyzed below with detailed responses included in Appendix A.

- Within Inyo and Mono Counties, Mammoth Lakes was the most common place of residence (20 percent). 28 percent of participants were visiting from cities outside of the region.

- 90 percent of respondents had a car and 98 percent had a driver's license.

- Most of the summer community survey respondents use ESTA sporadically: 48 percent ride ESTA only 1 to 11 times per year. 59 percent of participants said they use the Reds Meadow Shuttle in the summer, and 51 percent use the Lone Pine to Reno (395 North) services. 16 percent of respondents said that they do not use ESTA during the summer, with the most common reason being because there is no weekend service along US 395.

- Survey participants had the good opinions of driver courtesy and system safety. They had worse perceptions of service frequency, phone, and web information.

- Most summer community survey respondents go to Mammoth Lakes and Bishop for their needs. The majority of access to intercity transportation (such as air service) was largely to/from Reno.

- Requests were made to implement weekend service between Reno and Lancaster and to increase weekday service options to Reno and Carson City.

Onboard Passenger Surveys

Surveyors and bus drivers helped to implement the summer onboard passenger surveys. 161 people participated in the onboard survey available on fixed route services and 9 people participated in the specific Dial-a-Ride (DAR) survey. Detailed results are also included in Appendix A.

- More than half of the survey participants were riding the Summer Town Trolley and Purple Route.

- Nearly half of the respondents live in Mammoth Lakes (49 percent). Bishop was the next most common community of residence (11 percent).

- The onboard survey respondents use ESTA services much more frequently than the online survey participants: 46 percent of respondents ride the bus 5 or more times per week and 26 percent between 3 to 5 times weekly. 32 percent were taking the bus to work at the time they completed the survey, while 27 percent of participants were going to a recreational or social event.

- Only 42 percent of respondents had a car and 54 percent had a driver's license.

- Survey participants had mediocre opinion of ESTA's web and phone information.

- The most popular ideas for improvements were later weekday service and more frequent service (25 percent each, respectively).

- Complaints were made about drivers not waiting for passengers to sit down before departing, and about drivers arriving and leaving stops early without waiting for potential passengers.

- DAR survey respondents ranked the DAR services highly but would like to see expanded service areas and a quicker reservation process.

WINTER SURVEYS

Online Community Survey

The summer online community survey consisted of 18 questions. Responses from the 54 survey participants are discussed in this section and full results are in Appendix B.

- Over one third of respondents live in Bishop (37 percent), and 26 percent live in Mammoth Lakes. Only 7 percent of respondents live in cities of California outside of Inyo and Mono Counties.

- 83 percent of respondents had a car and 88 percent had a driver's license.

- Only 45 percent of the winter community survey respondents use ESTA services during the winter, with 36 percent of the group saying it's because they would rather drive and 27 percent saying there is no service near their house. 9 percent cited the weather.

- Just like the summer community survey, 48 percent of the winter community survey participants ride ESTA 1 to 11 times per year. 32 percent use the 395 North routes/services during winter.

- Also similar to the summer survey, winter participants had good opinions of driver courtesy and system safety. They did not think as highly of the location of services or ESTA phone information.

- Most winter community survey respondents go to Bishop and Mammoth Lakes for their needs.

- The most popular potential ESTA service improvement among the winter community survey respondents was to add weekend service to and from Reno. Additional requests were made for increased service options to Reno, Lancaster, and Carson City, more generally.

Onboard Passenger Surveys

The winter onboard surveys were available for passengers to self-administer. 240 people participated in the onboard survey available on the Mammoth and town to town routes, 60 participated in the survey available on the US 395 routes, and 31 participated in the DAR survey. Full results are included in Appendix B.

- 58 percent of respondents completing the winter onboard survey on either the Mammoth or town to town routes were riding the Red Line, while 50 percent of the US 395 survey respondents were riding the Mammoth Express.

- A large number of participants live in Mammoth Lakes (32 percent of the Mammoth/town to town routes survey and 15 percent of the US 395 survey). More out-of-town visitors responded to the Mammoth and town to town routes survey compared to the US 395 survey (more than 26 percent versus 15 percent).

- The onboard survey respondents use ESTA services much more frequently than the online survey participants: 51 percent of respondents to the Mammoth and town to town routes survey, 31 percent of the US 395 survey respondents, and 65 percent of the DAR survey respondents use transit services 3 or more times per week.

- Most of the riders on the Mammoth and town to town routes were traveling for the purpose of recreation or a social event (66 percent), followed by riders traveling to work (22 percent). The most common trip purpose among the US 395 survey participants and DAR survey participants was work (37 percent and 39 percent, respectively).

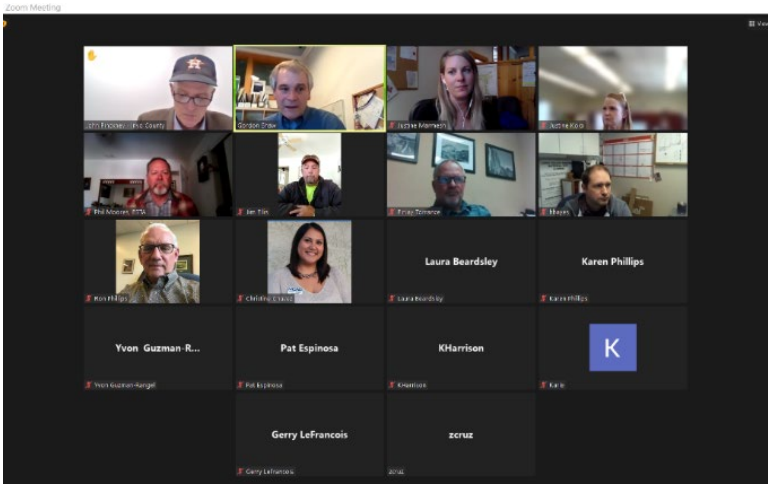
- 81 percent of respondents to the Mammoth and town to town routes survey had a car and 71 percent had a driver's license. For the DAR survey, only 11 percent had a car available, and 32 percent had a driver's license.

- Survey participants had great impressions of driver courtesy, as it was either the highest or second highest ranked factor in all three onboard surveys. Another highly ranked factor across all three surveys was system safety.

- The most popular improvements across all three onboard surveys were to implement weekend service, expand service hours, and to improve bus shelters. More frequent service was specifically recommended by the participants of the Mammoth and town to town routes survey (40 percent).

- A common theme across the 3 onboard surveys was a desire for improved access to transit system information. Phone information, web information, and the reservation process were some of the lowest-ranked service factors. It is important to have accurate and useful information available to riders, especially given the high number of visitors to the area.

PUBLIC WORKSHOPS



Two separate virtual workshops were hosted to allow for input and participation from various groups of community members. The first workshop was held on October 27th, 2021, and featured community members, stakeholders, and transit providers throughout Inyo and Mono Counties. The second workshop was held on November 12th, 2021, and included participation from the ESTA Board of Directors. A video of the Board of Directors presentation and workshop was distributed to stakeholders and made available to the public as well. A summary of these workshops and the issues, concerns, and suggestions received at each are summarized below.

Stakeholder and Transit Provider Workshop

The stakeholder and transit provider workshop had 20 participants representing social service agencies, public municipalities, local businesses, medical, and transit providers from both Inyo and Mono Counties. The workshop began with a presentation from LSC Transportation Consultants summarizing the existing conditions, ESTA ridership and operational performance, and public survey results. Participants were then led through a discussion with the following prompts:

- What is ESTA doing well?
- What could ESTA be doing better?
- Where should ESTA consider expanding or improving their services?
- Are there elements of the community that have mobility challenges?
- What opportunities exist for coordinating services or sharing resources?

The input received included comments related to service expansion, positive attributes of ESTA, current transit concerns, and challenges. Major feedback or service requests of note included the following:

- Weekend services connecting to Reno and Lancaster.
- Increased morning services along Mammoth Lakes fixed route runs to accommodate busy ski/snowboard seasonal ridership.
- Real-time information being available at bus stops and/or online through a phone app.
- Populations needing medical services outside of Inyo and Mono Counties need to often coordinate two days of travel for medical and social services provided in Reno, Carson City, or Los Angeles.
- Education regarding transportation services is needed for seasonal employees staying in Bishop and working in Mammoth Lakes.

These comments were considered further in Chapter 12, along with other unmet needs and gaps in service. Coordination strategies are discussed in more detail in Chapter 13. Complete meeting minutes can be found in Appendix C.

ESTA Board of Directors Workshop

The ESTA Board of Directors workshop included 15 participants representing ESTA staff, Inyo and Mono Counties, the City of Bishop, Mammoth Lakes, and Caltrans District 9. Similar to the stakeholder and transit provider workshop, an overview of existing conditions was presented followed by a break-out discussion with the following prompts:

- What is ESTA doing well and what could we be doing better?
- Where should ESTA consider expanding or improving their services?
- Are there elements of the community that have mobility challenges?
- What opportunities exist for coordinating services or sharing resources?
- What alternatives should your consultants evaluate in the next phase of our study?

Comments included alternatives to existing services, technological updates, possible capital improvements, and possible areas for coordination. Complete meeting minutes, the presentation, and workshop brainstorm board can be found in Appendix D. Some of the most notable suggestions included the following:

- Later evening services in Bishop.
- Schedule changes to accommodate connections to YART
- Earlier morning services between Bishop, Lone Pine, and Big Pine.
- Weekend express services between Bishop and Mammoth Lakes
- Earlier morning DAR services.
- Possible microtransit service and phone app serving Bishop.
- Universal fare pass
- Updates in technology including real-time information, DAR dispatch, and payroll.
- Possible coordination opportunities including:
    - ESTA donating retired vehicles to local social service transit providers.
    - Creating more full-time positions by sharing drivers with local agencies, school districts, etc.
    - ESTA is interested in coordinating maintenance and sharing costs with IMAH, Bishop Paiute Tribe, local school districts, and other social service transit provider

Chapter 8
GOALS, OBJECTIVES, AND STANDARDS

PURPOSE

An important element in the success of any organization is a clear and concise set of goals and objectives, as well as the performance measures and standards needed to attain them. This can be particularly important for a public transit agency, for several reasons:

- Transit goals can be inherently contradictory. For instance, the goal of maximizing cost effectiveness can tend to focus services on the largest population centers, while the goal of maximizing the availability of public transit services can tend to disperse services to outlying areas. To best meet its overall mission, a public transit agency must therefore be continually balancing the trade-offs between goals. Adopting policy statements also allows a discussion of community values regarding transit issues that is at a higher level of discussion than is possible when considering case-by- case individual issues.

- As a public entity, a public transit organization is expending public funds, and therefore has a responsibility to provide the public with transparent information on how funds are being spent and how well it is doing in meeting its goals. Funding partners also have a responsibility to ensure that funds provided to the transit program are being used appropriately. The transit organization therefore has a responsibility to provide information regarding the effectiveness and efficiency by which public funds are being spent.

- An adopted set of goals and performance standards helps to communicate the values of the transit program to other organizations, to the public, and to the organization staff.

SUMMARY OF ESTA GOALS AND STANDARDS

2015 ESTA SRTP Overview

In the 2015 ESTA SRTP, a set of performance standard modifications were recommended to achieve greater success in meeting ESTA's goals and objectives. These performance standard modifications included the following:

- For US 395 routes, it was recommended that ESTA shift away from service standards based on passenger trips and rather implement standards based on passenger-miles to reflect the long distances travelled. A minimum standard of 100 passenger-miles per vehicle-hour and a target standard of 200 passenger-miles per vehicle hour was recommended.

- Town to town (regional inter-city) and US 395 routes should also shift cost efficiency standards away from subsidy per passenger trip and consider implementing a standard of subsidy per passenger mile.

- On time performance for DAR should be a minimum standard of 90 percent and a target standard of 95 percent.
- Passenger surveying standard should be set to every five years rather than every 2 years at a minimum and 6 months as a goal.
- Service productivity for DAR should be modified to 2.0 as the minimum and 3.0 as a target standard.
- Subsidy per passenger trip for DAR should be revised to $40.00 as the minimum and $25.00 as target standard.

Through discussions with ESTA staff and a review of ESTA's most recent Strategic Business Plan for FY 2021-2023 the following SRTP recommendations have not yet been decided or implemented into current standards:

- Modifying standards from subsidy per passenger trip to subsidy per passenger mile.
- Conducting community surveying every 5 years rather than every 2 years. The current Strategic Business plan dictates these community passenger surveys should be conducted annually.
- Service productivity for DAR should be modified to 2.0 as the minimum and 3.0 as a target standard.

2021 ESTA Standards of Excellence

The current ESTA Strategic Business Plan (2021-2023) provides a complete report of existing standards, means of measurement, and recent performance characteristics. The ESTA Standards of Excellence include seven sections including the following:

1. Safety
2. Service Quality and Efficiency
3. Revenue and Resources
4. Human Resources
5. Fleet and Facility
6. Innovation and Design
7. Leadership

A complete list of each section and their corresponding standards are included under Appendix E. Most of the standards are recorded monthly and reported on a quarterly basis to the ESTA Executive Director to the Board.

EXISTING ESTA STANDARD PERFORMANCE REVIEW

As mentioned in previous chapters, the 2021 SRTP intends to plan for the post-covid future of ESTA services within Inyo and Mono Counties. For this reason, FY 2018-19 data and the cost model presented in Chapter 4 are used to evaluate average ESTA performance and inform service recommendations moving forward.

Tables 26 and 27 present operating and performance data for all ESTA routes for FY 2018-19. This data is useful in conducting an analysis of ridership and operating data on a per route basis, including subsidy requirements and farebox recovery ratios. This information will ultimately be used to evaluate a number of productivity and service measures that will inform standard recommendations. The following is a brief overview of FY 2018-19 performance data:

- Operating costs per passenger trip demonstrates the financial efficiency of a system and is measured by the operating cost of a one-way passenger trip (Figure 23). Operating costs per passenger trip were highest among the following routes: Bridgeport to Carson City ($162.63/trip), followed by Benton to Bishop ($72.93/trip), and Bishop Creek Shuttle ($53.40/trip). The lowest cost per trip were served by the Mammoth winter fixed routes ($1.89/trip) followed by Mammoth fixed routes (Summer/Winter Purple Route, Lakes Basin Shuttle, and Trolleys ($3.33/trip).

- Operating costs per vehicle service hour is another key indicator of a transit system's cost efficiency. Operating costs per vehicle service hour were greatest along Benton to Bishop ($166.74/hour), Reds Meadow Shuttle ($117.13/hour), and Bishop Creek Shuttle ($116.74), as shown in Figure 24. Costs were lowest on the Walker (June Lake) to Mammoth route ($40.07/hour), followed by the DAR services ($63 to $75 per hour).

- Routes with the greatest passengers per vehicle hour included the Mammoth winter fixed routes (48.2 passengers/hour), followed by Reds Meadow Shuttle (34.8 passengers/hour) and the other Mammoth fixed routes (22.8 passengers/hour), as depicted in Figure 25. Reflecting the long travel distances, none of the other fixed route services exceeded 5.5 passenger-trips per hour. The lowest occurred along the Bridgeport to Carson City route with 0.64 passengers/hour.

- The Reds Meadow Shuttle farebox ratio was greatest in FY 2018-19 at 98.9 percent (Figure 26). This was followed by the 395 North and South routes (55.9 percent and 36.0 percent, respectively). Aside from the Mammoth winter and summer fixed routes, providing service for free fare, the lowest farebox ratios occurred along the Bridgeport to Carson City (4.3 percent), Benton to Bishop (7.6 percent), and Bishop Creek Shuttle (7.7 percent). Please note that there is no farebox ratio for Mammoth fixed routes as these services are provided for free to passengers.

Table 26: Operating and Financial Characteristics by Route

FY 2018-19

Route	Annual Operating Data: One-Way Passenger-Trips	Avg Trip Length (Miles)	Annual Passenger-Miles	Vehicle Service Hours	Vehicle Service Miles	Total Operating Cost	Farebox Revenue
Benton to Bishop	410	35	14,350	179	7,714	$29,900	$2,268
Bishop Creek Shuttle	603	22	13,266	276	8,716	$32,200	$2,490
Bridgeport to Carson City	198	41	8,118	308	7,041	$32,200	$1,371
Lone Pine Express	3,322	35	116,270	1,227	55,391	$135,700	$17,629
Bishop to Reno (395 North)	7,954	119	946,526	3,343	140,558	$313,000	$174,935
Bishop to Lancaster (395 South)	6,289	70	440,230	2,674	126,525	$268,100	$98,805
Mammoth Fixed Routes (Purple Route, Lakes Basin Shuttle, and Trolleys)	381,712	4	1,526,848	16,720	221,670	$1,270,100	$0
Mammoth Winter Fixed Routes (MMSA Red, Blue, Green, Yellow Routes)	521,606	4	2,086,424	10,820	133,000	$983,800	$1,119,591
Mammoth Express	5,209	39	203,151	949	42,774	$108,700	$28,351
Reds Meadow Shuttle	130,914	9	1,178,226	3,785	46,780	$443,400	$438,611
Walker (June Lake) to Mammoth	2,123	85	180,455	804	15,984	$32,200	$10,025
Bishop DAR	43,434	2	86,868	10,945	113,759	$814,100	$98,123
Lone Pine DAR	4,078	4	16,312	1,759	17,511	$120,700	$10,336
Mammoth DAR	4,052	4	16,208	2,096	7,290	$133,700	$7,229
Walker DAR	1,402	2	2,804	1,868	8,537	$122,800	$3,881
Nite Rider	4,074	2	11,146	810	11,146	$61,400	$15,919
Systemwide	**1,117,380**	**30**	**6,847,202**	**58,563**	**964,396**	**$4,902,000**	**$2,029,564**

Source: ESTA FY 2018-19 Operational Data and Cost Model, 2021

Table 27: Performance Indicators by Route

FY 2018-19

Route	Performance Indicators									
	Operating Cost per Trip	Operating Cost per Hour	Operating Cost per Mile	Psgrs per Veh-Hour	Psgr-Miles per Vehicle-Hr	Psgrs per Veh-Mile	Public Subsidy per Psgrs Mile	Public Subsidy per Psgr-Trip	Average Fare	Total Farebox Ratio
Benton to Bishop	$72.93	$166.74	$3.88	2.3	80	0.05	$1.93	$67.39	$5.53	7.6%
Bishop Creek Shuttle	$53.40	$116.50	$3.69	2.2	48	0.07	$2.24	$49.27	$4.13	7.7%
Bridgeport to Carson City	$162.63	$104.44	$4.57	0.6	26	0.03	$3.80	$155.70	$6.92	4.3%
Lone Pine Express	$40.85	$110.56	$2.45	2.7	95	0.06	$1.02	$35.54	$5.31	13.0%
Bishop to Reno (395 North)	$39.35	$93.62	$2.23	2.4	283	0.06	$0.15	$17.36	$21.99	55.9%
Bishop to Lancaster (395 South)	$42.63	$100.26	$2.12	2.4	165	0.05	$0.38	$26.92	$15.71	36.9%
Mammoth Fixed Routes (Purple Route, Lakes Basin Shuttle, and Trolleys)	$3.33	$75.96	$5.73	22.8	91	1.72	$0.83	$3.33	$0.00	0.0%
Mammoth Winter Fixed Routes (MMSA Red, Blue, Green, Yellow Routes)	$1.89	$90.93	$7.40	48.2	193	3.92	-$0.07	-$0.26	$2.15	113.8%
Mammoth Express	$20.87	$114.53	$2.54	5.5	214	0.12	$0.40	$15.43	$5.44	26.1%
Reds Meadow Shuttle	$3.39	$117.13	$9.48	34.6	311	2.80	$0.00	$0.04	$3.35	98.9%
Walker (June Lake) to Mammoth	$15.17	$40.07	$2.01	2.6	225	0.13	$0.12	$10.45	$4.72	31.1%
Bishop DAR	$18.74	$74.38	$7.16	4.0	8	0.38	$8.24	$16.48	$2.26	12.1%
Lone Pine DAR	$29.60	$68.63	$6.89	2.3	9	0.23	$6.77	$27.06	$2.53	8.6%
Mammoth DAR	$33.00	$63.80	$18.34	1.9	8	0.56	$7.80	$31.21	$1.78	5.4%
Walker DAR	$87.59	$65.74	$14.38	0.8	2	0.16	$42.41	$84.82	$2.77	3.2%
Nite Rider	$15.07	$75.78	$5.51	5.0	14	0.37	$4.08	$11.16	$3.91	25.9%
Systemwide	**$4.39**	**$83.70**	**$5.08**	**19.1**	**117**	**1.16**	**$0.42**	**$2.57**	**$1.82**	**41.4%**

Source: ESTA FY 2018-19 Operational Data and Cost Model, 2021

Figure 23: FY 2018-19 Operating Cost per Trip

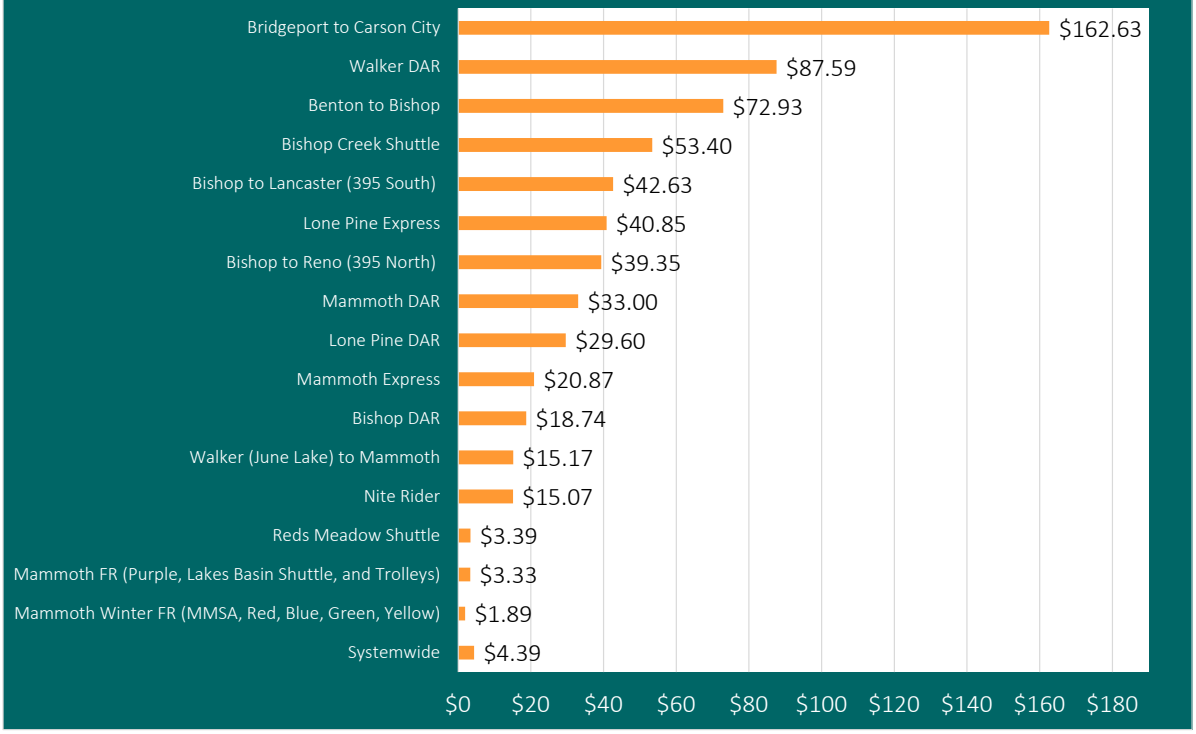


Figure 24: FY 2018-19 Operating Cost per Hour

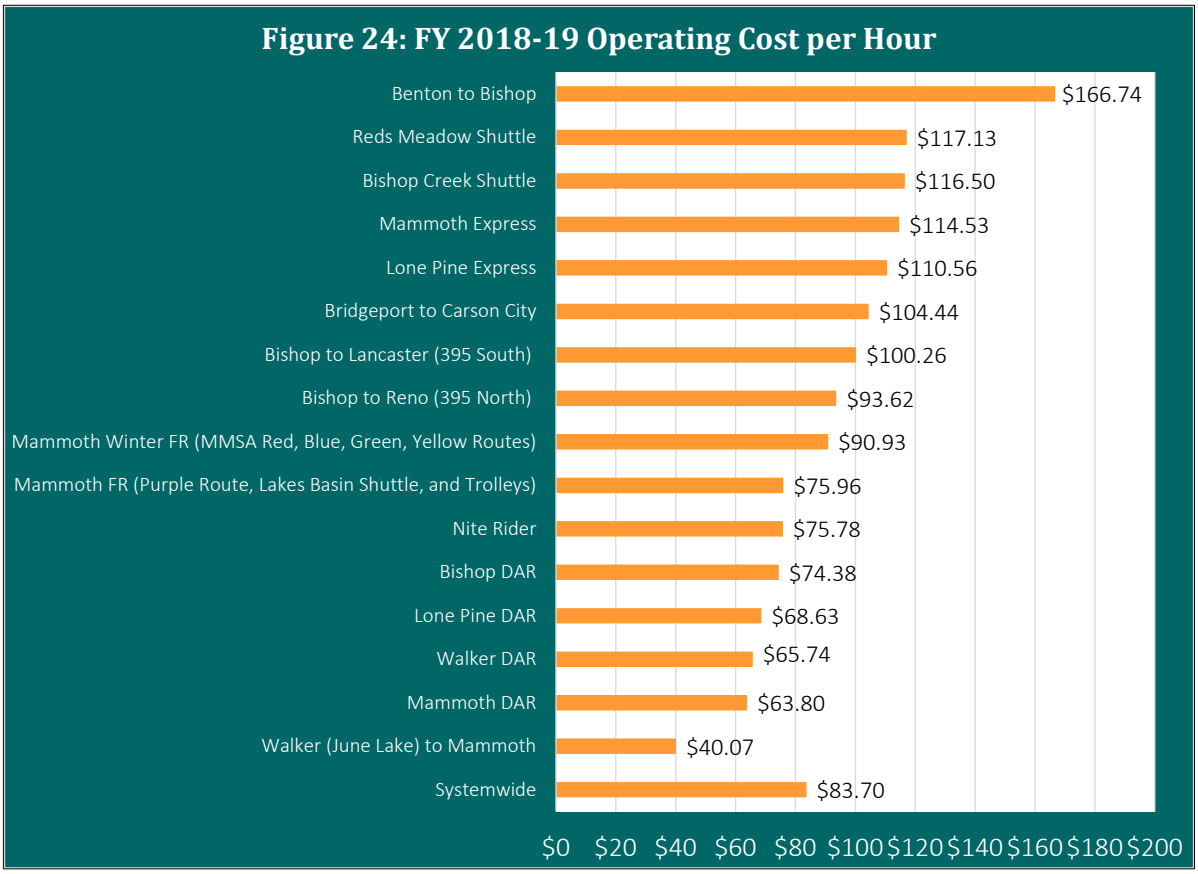


Figure 25: FY 2018-19 Passengers per Vehicle Hour

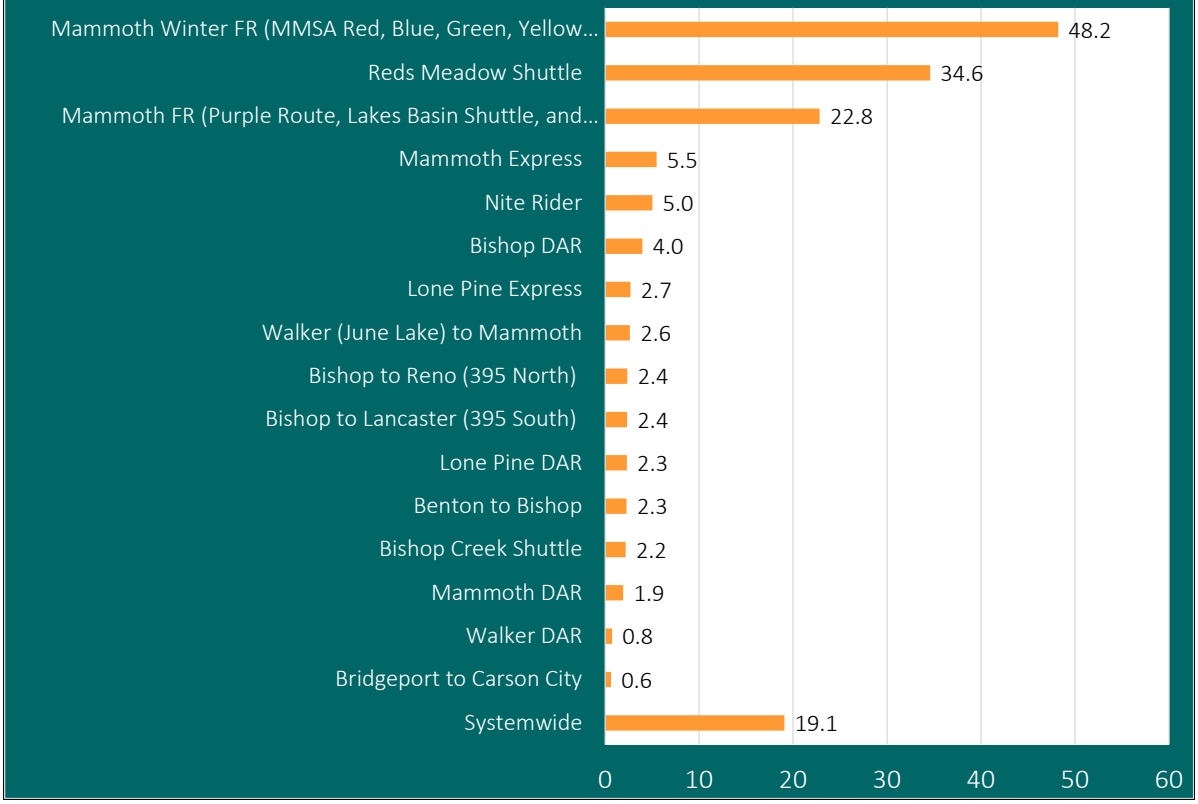
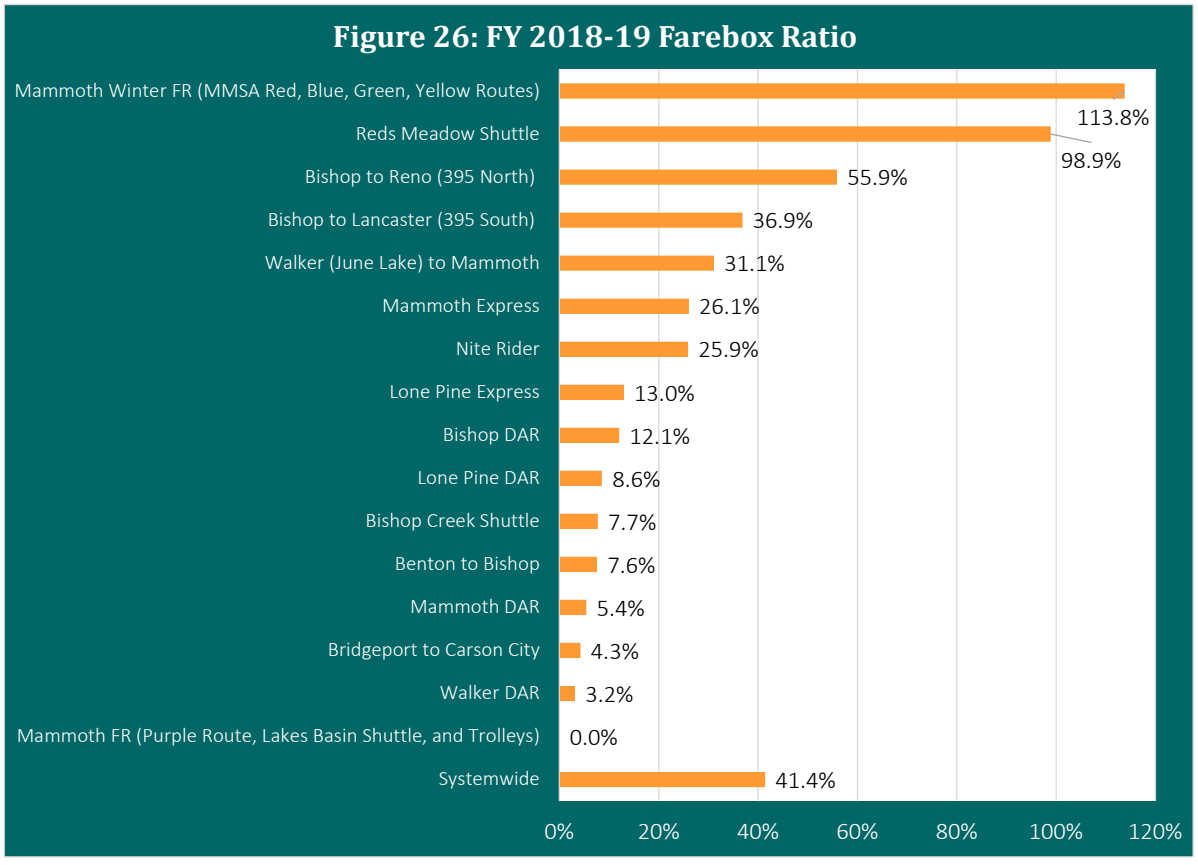


Figure 26: FY 2018-19 Farebox Ratio



Dial-a-Ride (DAR) services were also evaluated using these same performance indicators. The following provides a summary of each DAR service:

- Operating cost per passenger trip was highest along the Walker DAR service ($87.74/trip) followed by Mammoth DAR ($33/trip). The Nite Rider service has the lowest operating cost per trip with $15.07/trip followed by Bishop DAR with the second lowest operating cost per trip ($18.74/trip).
- However, operating costs per hour were greatest along the Nite Rider and Bishop DAR ($75.78 and $74.38 per hour, respectively). Mammoth DAR has the lowest costs per hour ($63.80).
- Nite Rider and Bishop DAR had the greatest passengers per vehicle hour (5 and 4 passengers per hour, respectively). Walker DAR had the lowest with less than 1 passenger, or 0.75 passengers per hour.

Tables 28a through 28d represent both planning and performance goals and objectives with minimum standards set by the previous SRTP and the most recent 2021-2023 Strategic Business Plan. FY 2018-19 data has been utilized for standards related to productivity, farebox ratio, and subsidy per passenger-trip while current conditions are used for planning standards. Below is a brief summary of goals that did not meet current standards.

Service Quality Goal

- The local fixed routes (Mammoth Fixed Routes) and the Regional Intercity routes are not currently meeting their standards to provide on time service defined as “less than one minute early and no later than 6 minutes after any published time”.
- Road calls are also exceeding the minimum standard of 3 per 100,000 miles at 4.4 road calls.

Service Effectiveness and Ridership Goal

The following services did not meet the minimum standard (4 passengers per hour):

- Benton to Bishop (2.3 passengers per hour).
- Bishop Creek Shuttle (2.2 passengers per hour).
- Bridgeport to Carson City (0.6 passengers per hour).
- Walker to Mammoth Lakes (2.6 passengers per hour).
- Mammoth DAR, Lone Pine DAR, and Walker DAR (1.9, 0.8, and 2.3 passengers per hour, respectively).

The following services did not meet the minimum standard set for farebox ratio (10 percent):

- Benton to Bishop (8 percent).
- Bishop Creek Shuttle (8 percent).

- Bridgeport to Carson City (4 percent).
- Mammoth DAR (5 percent).
- Walker DAR (3 percent).
- Lone Pine DAR (9 Percent).

Reds Meadow Shuttle as well as Bishop DAR, Mammoth DAR, and Lone Pine DAR all met the minimum standards set for subsidy per passenger trip. All other services failed to meet the standard. Systemwide subsidy per passenger trip was well below the target standard ($5.00) at $2.70 as of FY 2018/19.

RECOMMENDATIONS

To further improve the effectiveness of the ESTA performance measurement program, recommended changes to current standards includes the following:

- Modify the standards from subsidy per passenger trip to subsidy per passenger mile for regional inter-city and 395 route services.

- Implement a Mammoth Fixed Route subsidy per passenger trip standard of $4.00.

- Conducting community and passenger surveying every 5 years rather than every 2 years. The current Strategic Business Plan dictates these community passenger surveys should be conducted annually.

- Service productivity for DAR and lifeline services should be modified to 2.0 as the minimum standard.

- Modify the on-time performance standard to allow a 10 minute on-time performance window for Express and Intercity services.

- Revisions to Standard 2.5: “ESTA will measure customer comments taken by phone, email, and verbal report. Compliments will not be included in the ratio but will be reported separately. The standard is .075 comments per 1,000 boardings.”

- Note that these standards may be modified after evaluation of potential service improvements.

Table 28a: Review of ESTA Performance Against Current Standards

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

Service			Minimum Standard	Current Status
Safety				
Accessibility				
Mammoth Lakes	Fixed Route	Summer	7:00AM - 10:00PM	7:00AM - 2:00AM
		Winter	7:00 AM - 1:00 AM	7:00AM - 2:00AM
		Shoulder	7:00 AM - 6:00 PM	7:00AM - 10:00PM
	Dial-A-Ride	All	Match Fixed Route hours	8:00AM - 6:00 PM ADA available during fixed route hours with 24-hr notice.
Bishop	Fixed Route		7:00 AM - 6:00 PM, M-F	No longer operated.
	Dial-A-Ride		Microtransit Hours, 9:00 AM - 3:00 PM Sat and Sun	M - Th 7:00AM - 6:30PM F - 7:00 AM - 2:00 AM Sat - 8:30 AM - 2:00 AM Sun - 8:00 AM - 1:00 PM
Rural Dial-A-Ride			2 days per week, 9:00 AM to 3:00 PM	Walker - 4 days per week, 8:00 AM - 4:00 PM Lone Pine - 5 days per week, 7:30 AM - 3:30 PM
Town-to-Town			1 Round Trip, 2 days per week, Minimum Layover of 3 hours	Bridgeport - Carson City 1 RT, 1 day/week 395 Route North - 5 weekdays/week Benton - Bishop - 1 RT, 2 days/week
395 Routes			Not identified separately	Lone Pine - Reno - 1 RT, 5 days per week Lancaster - Mammoth Lakes - 1 RT, 5 days per week Lone Pine Express - 3 RT, 5 days per week Mammoth Express - 4 RT, 5 days per week
Total Accidents				
Systemwide			1 preventable accident per 100,000 miles	0.70
Training and Safety Plan				
Systemwide			100% Compliance With Regulations/Laws Covering Employee Selection, Drug Testing & Training	Achieved

Table 28b: Review of ESTA Performance Against Current Standards

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

Service	Minimum Standard	Current Status
SERVICE QUALITY GOAL		
On-Time Performance		
Local Fixed Route Service	"On Time" for Fixed Route (Intercity 395 Routes and Express Routes) is defined as less than one minute early and no later than 6 minutes after any published time.	78 percent
Express and Regional Inter-City Routes	"On Time" for Fixed Route (Intercity 395 Routes and Express Routes) is defined as less than one minute early and no later than 6 minutes after any published time.	45 percent
Dial-a-Ride	At Least 90% Pickups In Window 30 Minutes or Less Wait Time.	99.4 percent
Frequency		
Mammoth Lakes Fixed Route	30 Minutes	15-30 Minutes, depending on season and route
US 395 Routes	1 Round Trip, 4 Days per Week	Reno - 1 RT, 5 days per week
		Lancaster - 1 RT, 5 days per week
		Lone Pine Express - 3 RT, 5 days per week
		Mammoth Express - 4 RT, 5 days per week
Customer Satisfaction		
Systemwide	Passenger Survey Every 2 Years	Achieved. Various surveys have been conducted between 2017 and 2021.
Road Calls		
Systemwide	3 per 100,000 miles	4.4

Table 28c: Review of ESTA Performance Against Current Standards

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

Service		Minimum Standard	Current Status
SERVICE EFFECTIVENESS AND RIDERSHIP GOAL			
Marketing			
Systemwide		Establish Regional Transit Brand	Achieved
		Provide Transit Passenger Information In a Variety of Formats	Achieved
		Create Visibility for the ESTA Network as well as Individual Services	Achieved
		Educate Users and Gatekeepers About Services and Benefits	Achieved
		Deliver Consistent, High-Quality Customer Service	Achieved
Service Productivity -- Passengers Per Hour			
Mammoth Fixed Route (Summer and Winter)		17.0	33.7
Lifeline	Benton to Bishop	4.0	2.3
	Bishop Creek Shuttle		2.2
	Bridgeport to Carson City		0.6
	Walker (June Lake) to Mammoth		2.6
Regional Services	Lone Pine Express	2.0	2.7
	Mammoth Express		5.5
	395 North		2.4
	395 South		2.4
Bishop Dial-A-Ride		3.0	4.0
Mammoth Dial-A-Ride		3.0	1.9
Rural Dial-A-Ride	Walker Dial-a-Ride	2.5	0.8
	Lone Pine Dial-a-Ride		2.3
Systemwide		8.0	19.1

Table 28d: Review of ESTA Performance Against Current Standards

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

Service		Minimum Standard	Current Status
SERVICE COST EFFICIENCY GOAL			
Farebox Recovery Ratio			
Regional and Intercity Service	Benton to Bishop	10%	8%
	Bishop Creek Shuttle		8%
	Bridgeport to Carson City		4%
	Lone Pine Express		13%
	Mammoth Express		26%
	Reds Meadow Shuttle		99%
	Walker (June Lake) to Mammoth		31%
	395 North		56%
	395 South		37%
Bishop Dial-A-Ride		10%	12%
Mammoth Dial-A-Ride		10%	5%
Rural Dial-A-Ride	Walker Dial a Ride	10%	3%
	Lone Pine Dial a Ride		9%
Systemwide		10%	19%
Subsidy per Passenger Trip			
Regional and Intercity Service	Benton to Bishop	$10.00	$67.39
	Bishop Creek Shuttle		$49.27
	Bridgeport to Carson City		$155.70
	Lone Pine Express		$35.54
	Mammoth Express		$15.43
	Reds Meadow Shuttle		$0.04
	Walker (June Lake) to Mammoth		$10.45
395 Service	395 North	$15.00	$17.36
	395 South		$26.92
Bishop Dial-A-Ride		$40.00	$16.48
Mammoth Dial-A-Ride		$40.00	$31.21
Rural Dial-A-Ride	Walker Dial a Ride	$40.00	$42.41
	Lone Pine Dial a Ride		$6.77
Systemwide		$6.50	$0.42
Cost per Vehicle Revenue Hour			
Systemwide		No More Than 110% of Average of 5 Northern California Peer Systems	FR: 48%, Regional Inter-City: 85%, DAR: 62%

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Chapter 9

TECHNOLOGY, SAFETY, AND SECURITY

Operational and transportation technology is essential in providing accurate, efficient, and sustainable transit services. This chapter first discusses existing technology and their current strengths and weaknesses, followed by possible technological improvements to consider implementing over the next several years. For the purpose of this SRTP, the following technological areas were considered for possible upgrade or improvement:

- Video surveillance and security at Mammoth Lakes and Bishop locations.
- Payroll system.
- DAR dispatch process.
- Possible dispatch system for microtransit.
- Bus seat reservation system.
- Real-time bus schedule display system.

EXISTING TECHNOLOGY AND POSSIBLE IMPROVEMENTS

ESTA currently uses multiple different technologies for payroll, dispatch, security, and performance tracking. The following describes each of these current technologies or data collection methods and possible alternatives systems to consider moving forward.

Security and Surveillance

Neither the current maintenance facility located in Mammoth Lakes nor the Bishop administrative office have any level of security system. As each location possesses equipment and other capital assets, it is recommended that some sort of detection countermeasure is implemented at each site. Both security cameras and surveillance signage should be considered near major access points of each building.

Vehicle Maintenance and Repair

Currently the operational managers at both the Mammoth Lakes and Bishop bus yard locations track vehicle mileage and maintenance manually using Excel spreadsheets. Through interviews with staff, it appears that looking into maintenance tracking software is not currently a high priority, however it could potentially be considered in the future if budget allows. Transit systems often find that a specialized software package allows easier in-depth reporting and reduces the learning curve (and potential for error) associated with new employees over time. Current vehicle maintenance software on the market includes Samsara, Whiparound, and Fleetio.

Automated Reservation System

ESTA currently has an online reservation system allowing passengers to book a seat along the Lone Pine to Reno (395 North) route or the Mammoth Lakes to Lancaster (395 South) route. Reservations must be requested two business days in advance which is then processed manually by an ESTA staff member. While this system has worked for their immediate needs to book reservations ahead, it relies on a staff member physically adding the request to an Excel spreadsheet and ensuring that there is space for the reservation within the requested trip. The ESTA staff member then must call the passenger to confirm their reservation. This method not only has room for human error but is also time inefficient for the passenger making the reservation as it can take up to a full day or two to confirm their reservation.

An automated reservation system would provide immediate reservation confirmation and require less staff time to process. Some current online reservation systems on the market include Betterez and Turnit Ride. Both systems include the ability for a passenger to book their trip and pay online through their website portal, with proof of confirmation and receipt once booked.

Dial-a-Ride Dispatch Software

The current DAR dispatch system is a mix of manual management and entry through two dispatch operators and the software system Routematch. While the DAR service is currently operating within the standards, providing service to clients in 30 minutes or less, the service is challenging for dispatchers to manage and the Routematch software does not include all of the reporting mechanisms necessary to track performance. For example, ESTA is unable to determine the difference between active DAR drive time to and from passenger pick up and drop off and layover time. Other recommended dispatch systems worth looking into include Remix, Ecolane, and TripSpark.

Real-Time Route Display

Real time route information encourages transit use from tourists and those who are not familiar with a transit service. As the rise of phone apps have grown over the years, requiring a new app and download for each destination can be cumbersome and daunting when on the go. While ESTA currently encourages the use of the phone app “Transit” for real-time schedule information, this requires a download as well as internet/phone service to use.

It was requested by the general public, stakeholders, and the ESTA Board of Directors that some sort of real-time display technology be implemented for the Mammoth Lakes fixed route system. As ESTA currently uses Swiftly for its fixed route tracking, it is recommended that ESTA consider using their platform to display real-time display information on screens at major stops in Mammoth Lakes. The

following is a list of companies that provide the transit display screens themselves: Redmon Group Transit Display, Actionfigure, and ETA Transit.

Microtransit Service and App-Based Dispatch System

Microtransit has recently grown in popularity in filling in gaps in service and providing first- and last-mile connections to transit hubs all while facilitating paratransit needs for a community. The ESTA Board of Directors and ESTA staff have both mentioned an interest in learning how microtransit could better serve their Bishop residents, workforce, and tourists. A few microtransit dispatch and performance tracking software to consider includes Ecolane, SpareLabs, Transloc, and Via.

Payroll System

The current payroll system used by ESTA is Automatic Data Processing (ADP). While it provides the basic payroll tasks the agency requires, ESTA staff expressed dissatisfaction in a lot of its tracking and distribution mechanisms. It is recommended that ESTA pursue another payroll system, such as Paychex.

TECHNOLOGY RECOMMENDATIONS CONCLUSION

As a result of the above observations and through staff discussions, the following high priority technological improvements and practices should be considered moving forward:

- Surveillance cameras at the Bishop and Mammoth Lakes bus yard and maintenance facilities should be installed.
- Real time route display systems should be installed at major stops along the Mammoth Lakes fixed routes.
- A new DAR dispatch system should be pursued to schedule rides and improve performance tracking more efficiently.
- A more digitalized online reservation booking system should be implemented for 395 Routes.
- ESTA should continue to perform a technology inventory and evaluation at least every 5 years. As the pace of technology improvements increases and passenger expectations rise, it is important to stay current with advances.

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Chapter 10

CHSP PURPOSE, FUNDING SOURCES, AND REQUIREMENTS

PLAN OVERVIEW

The Coordinated Transit-Human Services Transportation Plan (Coordinated Plan) reviews the need for improved coordination between public transit operators, non-profit transportation providers, and private transportation providers throughout Inyo and Mono Counties. The primary elements of this plan consist of the following:

- An inventory of existing public transit services and all other transportation providers and purchasers;
- Transportation needs and gap assessment, as well as existing coordination between operators; and
- A list of prioritized strategies to increase mobility primarily for elderly, disabled, low income and other transportation disadvantaged residents.

METHODOLOGY

The 2022 Update to the Inyo and Mono Counties Coordinated Plan was conducted as follows:

- *Concurrent County-Wide Transit Planning Effort:* The Eastern Sierra Transit Authority (ESTA) began the process of updating the region's Short Range Transit Plan (SRTP) concurrently with this Coordinated Plan. This combined effort allows for a more holistic approach in reviewing previous and existing transportation planning documents and demographic conditions.
- *Transit Services, Transportation Providers, and Stakeholders Identification:* An overview of the existing transit services provided by ESTA was documented in full, reflecting both pre- and current-Covid-19 conditions. A list of current transportation providers and community stakeholders were contacted directly by email and telephone, interviewed, and encouraged to participate in and share various online surveys throughout the SRTP and Coordinated Plan process. A separate Stakeholder and Transportation Service Provider Survey was also distributed to those either directly providing or supplementing transportation to various populations. An inventory of these reported services was created using this survey.
- *Public Outreach:* As described above, various online and onboard surveys were launched throughout the SRTP and Coordinated Plan planning process as a way to determine mobility needs. Community and onboard surveys were distributed to the public and stakeholders in September 2021 and February 2022. Stakeholder surveys and a transportation provider survey were conducted in November. Ads for the community survey were posted in the Inyo Register as well as the Bishop and Mammoth Chamber of Commerce Newsletters. The stakeholder and

transportation provider surveys were sent directly to a list of 42 organizations in Inyo and Mono Counties.

- *Transportation Needs, Gaps, and Coordinated Efforts:* The transportation needs and gaps assessment provided the foundation to clearly identifying the location and methods in which to better serve low-income populations, seniors, and persons with disabilities throughout Inyo and Mono Counties. Inyo and Mono Counties' Unmet Needs over the past three years were also considered in the analysis. Documentation of existing coordinated efforts established the basis to improve on service through new innovative strategies.

- *Summary and Prioritization of Strategies:* With the above process in mind, various transportation strategies were evaluated to better meet the mobility needs of the target population. Each strategy was then prioritized by low, medium, and high designations.

PURPOSE

Serving mobility needs is particularly challenging within Inyo and Mono Counties due to their rural, dispersed character. The geographic region of Inyo County and Mono County is approximately 13,300 square miles with US 395 spanning the distance of about 240 miles between the south border of Inyo County and the north border of Mono County. At an average population density of 4.5 persons per square mile in Mono County and 1.8 in Inyo County, the region is far below the definition of "frontier" at 6 persons per square mile.

There are many organizations providing transportation services to the dispersed population of Inyo and Mono Counties. Besides ESTA, these counties are served by a variety of human service organizations providing transportation programs for sensitive populations such as low-income individuals, those living with disabilities, and people over 60 years old. Transit funding is limited at both the state and federal level, so it is important for these small organizations to coordinate transportation services in order to maximize mobility for residents and eliminate duplication of services.

The primary focus of the Coordinated Plan is to develop and refine existing implementable strategies that increase mobility for individuals with disabilities, older adults, and people with low incomes. These strategies serve as an update to the current Coordinated Public Transit-Human Services Transportation Plan (completed in 2014) and involve the public transit operator (ESTA), private transportation providers, non-profit transportation providers, and tribal transportation providers.

HISTORY OF COORDINATED PLANNING AND CONSOLIDATED TRANSPORTATION SERVICES AGENCIES

The movement to coordinate social service agency resources and develop a plan to aid this process began in the 1970's with the Social Services Improvement Act. The Act required the development of an Action Plan, similar to the Coordinated Plan, and required the designation of a Consolidated Transportation Services Agency (CTSA). The idea behind a CTSA is to designate one agency to coordinate social services and carry out intents of the Act in order to reduce overall administrative staff time and limit duplication

of services. CTSAs are eligible for a separate allocation of state Transportation Development Act (TDA) Funds (Article 4.5). ESTA is the designated CTSA for both Inyo and Mono Counties.

FEDERAL TRANSIT ADMINISTRATION FUNDING SOURCES

The Federal Transit Administration (FTA) offers a variety of discretionary and competitive grant programs to fund mass transportation. The latest legislation for funding federal surface transportation programs is MAP-21, the Moving Ahead for Progress in the 21st Century Act, signed into law on July 6, 2012. MAP-21 is the first long-term highway authorization enacted since 2005 (which was extended ten times). MAP-21 is intended to create a streamlined and performance-based surface transportation program building on many of the highway, transit, bike, and pedestrian programs and policies established in 1991. Below is a description of the various grant programs, some of which are new, and some of which have been consolidated or changed from previous programs. The 2021 Bipartisan Infrastructure Deal (Infrastructure Investment and Jobs Act) will continue to invest $89.9 billion to improve public transit over the next five years. Funding from this Act is also intended to continue supporting MAP-21.

FTA Section 5310 Enhanced Mobility for Seniors and Individuals with Disabilities

The FTA Section 5310 Enhanced Mobility for Seniors and Individuals with Disabilities Program (FTA 5310) is a competitive grant which provides funding for capital and operating expenses for:

- Public transportation projects planned, designed, and carried out to meet the special needs of seniors and individuals with disabilities when public transportation is insufficient, inappropriate, or unavailable.

- Public transportation projects that exceed the requirements of the Americans with Disabilities Act (ADA) of 1990.

- Public transportation projects that improve access to fixed-route service and decrease reliance on complementary paratransit; and

- Alternatives to public transportation projects that assist seniors and individuals with disabilities with transportation.

At least 55 percent of program funds must be spent on transportation projects planned, designed, and carried out to meet the special needs of seniors and individuals with disabilities when public transportation is insufficient, inappropriate, or unavailable. The remaining 45 percent may be used for: public transportation projects that exceed the requirements of the ADA; public transportation projects that improve access to fixed-route service and decrease reliance by individuals with disabilities on complementary paratransit; or alternatives to public transportation that assist seniors and individuals with disabilities. Using these funds for operating expenses requires a 50 percent local match while using these funds for capital expenses (including acquisition of public transportation services) requires a 20 percent local match.

Projects selected for FTA 5310 funding must be "*included in a locally developed, coordinated public transit-human services transportation plan"* and that the plan be "*developed and approved through a process that included participation by seniors, individuals with disabilities, representatives of public, private, and nonprofit transportation and human services providers and other members of the public.*" This Coordinated Plan will meet that requirement.

FTA Section 5311 Rural Area Formula Grants

This program provides capital, planning, and operating assistance to support public transportation in rural areas, defined as areas with fewer than 50,000 residents. Funding is based on a formula that uses land area, population, and transit service. The program remains largely unchanged with a few notable exceptions:

Job access and reverse commute (JARC) activities eligible: Activities eligible under the former JARC program, which provided services to low-income individuals to access jobs, are now eligible under the Rural Area Formula program (5311). In addition, the formula now includes the number of low-income individuals as a factor. There is no floor or ceiling on the amount of funds that can be spent on job access and reverse commute activities. JARC projects must be derived from a Coordinated Plan.

Tribal Program: The Tribal program now consists of a $25 million formula program and a $5 million discretionary grant program. Formula factors include vehicle revenue miles and the number of low-income individuals residing on tribal lands.

Other Programs: The set-aside for States for administration, planning, and technical assistance is reduced from 15 to 10 percent. The cost of the unsubsidized portion of privately provided intercity bus service that connects feeder service is now eligible as in-kind local match.

For the FTA 5311 program, a 16.43 percent local match is required for capital programs and a 47.77 percent match for operating expenditures. The bulk of the funds are apportioned directly to rural counties based on population levels. The remaining funds are distributed by Caltrans on a discretionary basis and are typically used for capital purposes.

Toll Credit Funds in Lieu of Non-Federal Match Funds

Federal-aid highway and transit projects typically require the project sponsors to provide a certain amount of non-federal funds as match to the federal funds, as described above. Through the use of "Transportation Development Credits" (sometimes referred to as toll revenue credits), the non-federal share match requirement in California can be met by applying an equal amount of Transportation Development Credit and therefore allow a project to be funded with up to 100% federal funds for federally participating costs.

Transportation Development Act Local Transportation Fund Program

A mainstay of funding for transit programs in California is provided by the Transportation Development Act (TDA). The major portion of TDA funds is provided through the Local Transportation Fund (LTF). These funds are generated by a 1/4 cent statewide sales tax, returned to the county of origin. The returned funds must be spent for the following purposes:

Two percent may be provided for bicycle facilities per TDA statues. (Article 4 and 4.5)

Up to five percent may be claimed by a CTSA for its operating costs, purchasing vehicles or purchase of communications and data processing equipment. (Article 4.5)

The remaining funds must be spent for transit and paratransit purposes, unless a finding is made by the Transportation Commission that no unmet transit needs exist that can be reasonably met. (Article 4 or 8)

If a finding of no unmet needs reasonable to meet is made, remaining funds can be spent on roadway construction and maintenance purposes. (Article 8)

State Transit Assistance (STA) Funds

In addition to LTF funding, the TDA includes a State Transit Assistance (STA) funding mechanism which is derived from the statewide sales tax on diesel fuel. Statute requires that 50% of STA funds be allocated according to population and 50% be allocated according to operator revenues from the prior fiscal year.

OTHER HUMAN SERVICE AGENCY FUNDING SOURCES

There are a variety of federal and state grant programs for social service agencies. Each one has specific eligible uses. Common social service funding sources which can be used for transportation purposes are listed below.

Older Americans Act (1965)

The Older Americans Act (OAA) address senior's access to health care and their general well-being. The Act established the federal Administration on Aging which is charged with the duty of implementing a range of assistance programs aimed at seniors, especially those at risk of losing their independence. Providing access to nutrition, medical and other essential services are all goals of the Act. There is no specific portion of the funding dedicated to transportation; however, funding can be used for transportation under Title II (Support and Access Services, Title IV (Grants to American Indian Tribes), and the Home and Community-Based Services (HCBS) program.

Medi-Cal

Medi-Cal is California's health care program for children and adults with limited income and resources. Medi-Cal will pay transportation expenses for NEMT trips for individuals who require a wheelchair van, ambulance, litter van or simply a high level of care. However, the transportation provider must be licensed by Medi-Cal. There are no Medi-Cal licensed providers in Inyo and Mono County.

Regional Centers

Regional Centers are private non-profit companies which contract with the Department of Developmental Services (DDS) to provide or coordinate services and supports for individuals with developmental disabilities. The Kern Regional Center is the local office for Inyo and Mono County. DDS funding is funneled through the Kern Regional Center to local agencies such as Inyo Mono Association for the Handicapped (IMAH) who provide transportation to/from their day programs and other services.

PRIVATE SOURCES

Donations

Private donations play a large role in human service agency funding. The majority of transportation funding for Disabled Sports Eastern Sierra and the Salvation Army are derived from donations. Nearly 25 percent of IMAH's budget comes from donations and thrift store proceeds. It is not uncommon to request donations for trips on coordinated transportation services.

College Transportation Fee

Some colleges have implemented a transportation fee as part of student tuition. In exchange for the fee, students can ride the local public transit for free. Some type of transportation fee for Cerro Coso College could also be used to finance a shared ride service.

PLAN REQUIREMENTS

This updated plan will adhere to FTA guidance, to ensure that local programs and services in Inyo and Mono Counties remain eligible for FTA grant funding. The requirements of a Coordinated Plan are set forth in FTA circular 9070.1G, and include:

- An assessment of available services that identifies current transportation providers (public, private, and non-profit).

- An assessment of transportation needs for individuals with disabilities, older adults, and people with low incomes. This assessment can be based on the experiences and perceptions of the planning partners or on more sophisticated data collection efforts, and gaps in service.

- Strategies, activities, and/or projects to address the identified gaps between current services and needs, as well as opportunities to achieve efficiencies in service delivery.

- Priorities for implementation based on resources (from multiple program sources), time, and feasibility for implementing specific strategies and/or activities identified.

These guidelines require the plan to be based on available resources.

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Chapter 11

TRANSPORTATION NEEDS ASSESSMENT

Federal guidelines related to coordinated planning require an assessment of needs for residents with disabilities, older adults, and low-income individuals. The needs assessment for Inyo and Mono Counties was developed from input obtained through the review of existing services, online community surveys, a service provider online survey, and unmet needs reports completed over the past three fiscal years.

EXISTING PLANNING DOCUMENTS

2014 Inyo and Mono Counties Coordinated Public Transit and Human Services Transportation Plan Update

The Coordinated Public Transit and Human Services Transportation Plan (Coordinated Plan) is intended to identify existing transit services being provided amongst social service providers while exploring ways in which to combine and coordinate these services. Major barriers to coordinating services include regional geography, the need for client assistance during a trip, and staff time necessary to apply for grant funding. Duplicative services are common amongst rural towns, for instance multiple agency vans may be providing transportation to the same destination, vehicles laying idle for a good portion of the week, and multiple contracts for vehicle maintenance.

Coordinating strategies recommended by the previous Coordinated Plan included improving mobility options for Inyo and Mono residents to medical appointments outside of regular public transit hours, expanding services to Cerro Coso Community College, and providing stronger connections for local employees to get to their places of employment.

Table 29 depicts high priority coordination strategies recommended in the previous Coordinated Plan. The table also includes the current implementation status of each strategy for our consideration in this current plan.

Unmet Needs Transit Reports

The California TDA requires annual unmet transit needs hearings if a jurisdiction proposes to spend some Local Transportation Fund resources on streets and roads. As part of the process, the Social Services Transportation Advisory Council (SSTAC) holds an official public needs hearing each year to receive public input on transit needs in the region. Unmet needs are defined as any deficiency within any transit service under the jurisdiction of the LCTC. Requests serving a small group of individuals, or that would duplicate current service, are not considered unmet needs.

Table 29: Inyo Mono 2015 Coordinated Plan High Priority Strategies

Coordinated Strategy	Lead Agency/ Champion	Implementation Status	Estimated Costs (2015)	Potential Funding Sources
Improve mobility options for Inyo and Mono residents to medical appointments outside of regular public transit hours.	CTSA, Agencies	*Partially Implemented: Various medical providers educate and assist their patients in accessing ESTA services.*	$5,000 - $50,000	FTA 5310, TDA, Agency funding
Improve transportation to Cerro Coso Community College.	CTSA, College	*Implemented: Service was offered, but proved not to be very successful.*	$1,000 - $3,000 (Operating Costs)	FTA 5311, TDA, College
Through the CTSA, continually review and seek funding for transportation-related technologies that would improve mobility for low income, elderly, and persons with disabilities.	CTSA	*Not Implemented.*	$100 - $1,000	FTA 5311, 5310
As funding allows, increase CTSA/ESTA staff resources to allow for additional time to be spent on CTSA activities such as grant writing assistance, outreach/coordination with human service agencies, mobility training, volunteer driver program, and other support services for non-profit agencies.	CTSA	*Not Implemented.*	$10,000 - $50,000	FTA 5310
Sustain and enhance transportation to employment opportunities through the ESTA Town to Town routes.	ESTA	*Implemented: ESTA services have expanded their schedule hours since the previous CHSP.*	$200,000	FTA 5311 (JARC)
Provide transportation for low income or persons with disabilities to jobs with non-traditional work hours (evenings/weekends).	ESTA	*Partially Implemented: ESTA DAR services have been expanded in Bishop, Mammoth Lakes, and Lone Pine, and Walker.*	$25,000 - $100,000	FTA 5311, 5310, TDA
Expand public transit service and/or improve connections for northern Mono County residents.	ESTA	*Implemented: ESTA service has been expanded to provide service from Bridgeport to Carson City.*	$ 5,000 - $50,000	FTA 5311, 5310, TDA
Expand alternative forms and modes of transportation to allow for non-medical trip purposes.	CTSA	*Not Implemented.*	$5,000 - $15,000	FTA 5311, 5310, TDA
Continue to develop and maintain support services and materials to better serve the Hispanic population (bilingual drivers, dispatchers, marketing materials).	ESTA	*Partially Implemented:*	$10,000 - $25,000	FTA 5311, TDA
Continue to promote ridesharing through AlterNet Rides or other rideshare programs.	CTSA	*Not Implemented.*	$3,000	FTA 5311, 5310, TDA
Develop communication and coordination mechanism to facilitate shared use of resources among human service agencies.	CTSA	*Not Implemented.*	Minimal	FTA 5311, 5310, TDA
Expand transportation services for veterans.	CTSA	*Partially Implemented: NEMT and DAR is offered in Inyo and Mono Counties.*	Part of NEMT Reimbursement Costs	FTA 5311, 5310, TDA
Consider acquiring a vehicle through federal grants to be shared among human service agencies.	CTSA/IMAH	*Not Implemented.*	$40,000 - $60,000	FTA 5310
Construct a shared transit operations and maintenance facility.	ESTA/CTSA	*Not Implemented.*	$100,000 - $400,000	FTA 5311, 5310, TDA

Once an unmet need is identified, it must be deemed "Reasonable to Meet," which considers factors such as potential farebox ratio, transit use, and paratransit compatibility. A brief overview of each county's identified unmet needs over the last three fiscal years is provided in Chapter 2. However, for the purpose of the Coordinated Plan, a summary of other comments each county received is described below:

Inyo County

During the 2019, 2020, and 2021 Inyo County SSTAC meetings, the following needs were expressed from local stakeholders and the general public:

- Northern Inyo Hospital patients need more transportation to and from their communities.
- Increased transit service between Lone Pine and Bishop during evenings and weekends.
- Shorter wait times for DAR services.
- Expansion of Lone Pine DAR service area to include Keeler.
- Extended Bishop DAR service hours.
- Provide weekend service along US 395.
- Provide trailhead service to Whitney Portal, Horseshoe Meadows, Onion Valley, and Glacier Lodge.
- Implement fixed route services in Bishop.
- Service Owens River / Poleta Road to White Mountain Research Center.

Mono County

During the 2019, 2020, and 2021 Mono County SSTAC meetings, the following needs were expressed from local stakeholders and the general public:

- Keep service to the upper Old Mammoth Road as in The Limited.
- Provide service stop at Sonora Junction.
- Deviate the 395 Route to June Lake
- Increase service between Chalfant and Bishop.
- Increase lifeline service to the Tri-Valley area from Benton.
- Lifeline service for June Lake residents.
- Increased Frequency of Purple Line in Town of Mammoth Lakes.
- SSTAC – Provide bilingual services for Mammoth Dial-a-Ride service.
- Install Bus stop in Benton.
- Weekly service to Mammoth Lakes from June Lake.
- Service to Mammoth Lakes from Lee Vining.
- Request made in Walker for vouchers to be available for those with financial hardship.
- Provide an employee and visitor service between Mammoth and June Mountain during winter operation.
- Continue to fund the Dial-a-Ride service from Antelope Valley to Bridgeport for the purpose of receiving medical services.

Implemented Services

Of the recognized needs received over the last three fiscal years, the following services have been implemented by ESTA; expansion of Lone Pine DAR to include Keeler, service to White Mountain Research Center via Poleta Road, and Tuesday service between Mammoth Lakes and June Lake.

DEMOGRAPHIC OVERVIEW

As summarized in Chapter 2, Inyo and Mono Counties are rural regions with dispersed transit dependent populations. In Inyo County, seniors, low-income individuals, those without a vehicle, and disabled residents make up 46 percent of the county's population with high concentrations of transit dependent people living in the communities of Bishop (60 percent) and Lone Pine (12 percent). In Mono County, 36 percent of the total transit dependent population live in Mammoth Lakes, followed by 13 percent in Chalfant and 11 percent in Walker. A more detailed representation of these transit dependent populations and their concentrations is included under Chapter 2.

EXISTING TRANSIT PROVIDERS

In addition to ESTA, other transit services in the Inyo and Mono County areas include the regional transportation and social services providers mentioned below. These services are described in detail in Chapter 3 (pages 38 to 43). An inventory of these other transit providers can also be found in Appendix F.

- The YARTS bus service provides transportation to Yosemite National Park from gateway communities on both the east and west side of the Sierras. YARTS operates a route from Mammoth Lakes, June Mountain, Lee Vining, to Tuolumne Meadows and Yosemite Valley along US 395 and SR 120, primarily for tourists. Regular one-way fares range from $5.00-$52.00. Reduced fares are available for seniors, children 12 and under, and persons with disabilities.

- Jump Around Carson is a local public transit system servicing Carson City, Nevada. JAC offers fixed routes and an additional curb-to-curb program called JAC Assist is available to eligible persons with disabilities. Regular one-way fares are $1.00, with reduced $0.50 fares available to youth, seniors, and disabled persons.

- The Washoe RTC operates "Ride", the main local public transit system servicing Reno, Sparks, and the unincorporated areas of Washoe County. The service offers fixed routes, an ACCESS program for riders with disabilities, and a vanpool option. Reduced fares are available to youth, seniors, and disabled persons.

- The City of Ridgecrest provides fixed routes and paratransit through the Ridgerunner Transit System. The Ridgerunner includes service in the City of Ridgecrest, as well as longer Kern County Routes to Inyokern and Randsburg with connections to ESTA occurring along its Inyokern route.

- Kern Regional Transit provides fixed route and paratransit services throughout Kern County, including routes to Bakersfield and Lancaster. Kern Regional Transit connects to ESTA along Routes 230 and 227.

- The Antelope Valley Transit Authority provides extensive fixed route, commuter route, and paratransit in the areas of Palmdale, unincorporated Los Angeles, and Lancaster (where it connects to ESTA).

- The Eastside Sierra Shuttle transports passengers to any vehicle-accessible trailhead in the Sierra Nevada Country or Death Valley country. Routes have base prices ranging from $50 to $140 for one passenger, with additional reduced fares for each additional rider.

- The Mammoth All Weather Shuttle provides private transportation and shuttle services to or from Mammoth Lakes along the Eastern Sierra Scenic Byway. Their services include point-to-point car service, door to door shuttles to both Mammoth and Bishop Airports, among others. Rates are dependent on the service and range from $119 for an SUV to $1,625 for a minibus.

- Limited taxi and limousine services serve the region, operating out of Mammoth Lakes. Reflecting the long travel distances, fares can be substantial. For instance, the rate for a one-way taxi trip between Mammoth Lakes and Bishop ranges between $120 to $175.

- The Inyo-Mono Association for the Handicapped provides a group of programs and services for adults aged 18 and older who are developmentally disabled. IMAH provides transportation for clients to and from programs as well as to work, using a fleet of nine vehicles.

- Great Steps Ahead provides in home and on-site early intervention services for children ages 0 to 3 with identified disabilities, developmental differences, and infants at risk for developmental delays. The agency spends roughly $5,000 on bus passes for clients and will also transport clients between their homes and the center in an agency owned vehicle.

- The Bishop Paiute Tribe is a sovereign nation located in the middle of the community of Bishop. The tribe operates the Paiute Palace on US 395 in Bishop. In FY 2018-19, approximately 25 percent of ESTA's DAR trips in Bishop had an origin or destination on the Reservation.

- The Toiyabe Indian Health Project is a consortium of seven federally recognized tribes and two Indian communities which provide a variety of health care services. Some transportation is provided for tribal members without access to a vehicle to medical appointments and dialysis.

- Southern Inyo Hospital provides emergency services, acute care, lab services, radiology, skilled nursing, physical therapy, and hospice services. The hospital is a critical access hospital and rural health clinic and therefore a transit generator for the region.

- Northern Inyo County Local Hospital District is a 25-bed critical access, not-for-profit hospital. The Northern Inyo Hospital operates the Rural Health Clinic in Bishop. The clinic is open Monday through Saturday 8:00 AM to 5:00 PM and the hospital is open 24 hours a day. The Northern Inyo Hospital recently acquired their own shuttle to provide transportation services for their clients.

- Disabled Sports Eastern Sierra is a volunteer-based nonprofit dedicated to changing the lives of children and adults with disabilities and their families. On occasion, this organization will use a Toyota Tundra to transport program participants to Mammoth Mountain Ski Area or the Whitmore Recreation Area. Disabled Sports also transports Wounded Warriors between the

airport and the ski area. If a large group arrives, Disabled Sports will coordinate with ESTA to provide a larger bus for the trip to the airport. Trips associated with this program are counted in the "Specials" category for ESTA.

- The Area Agency on Aging in Inyo and Mono County is **Eastern Sierra Area Agency for the Aging (ESAAA)**. ESAAA provides rides to individuals who are physically or logistically unable to use regular public transportation to obtain essential services. These individuals need transportation and assistance from the driver to find the out-of-town medical facility, purchase and carry groceries into the house, enter and exit the vehicle, etc. Based on individual needs, services are provided by Inyo County staff using program vehicles to residents throughout Inyo County. Staff provide short and long-distance medical trips as far as Reno and Lancaster as well as regularly scheduled errand/shopping trips.

- The **Mono County Senior Program** provides transportation and purchases bus passes on ESTA for clients. The Mono County Senior Program currently has one vehicle to transport seniors from Benton to medical appointments and shopping in Bishop/Mammoth, as well as Walker residents to Gardnerville, Carson City, and Reno.

- The **Mono County Health Department** provides transportation assistance for clients who participate in the California Children's Services (CCS) Program and HIV Care Program (HCP). On a case-by-case basis, gas vouchers may be provided for clients who need to travel outside of Mono County for specialty HIV care and other related medical services.

- The **Big Pine Education Center** provides many support services for youth, one of which is transportation for youth sporting activities in Bishop. The program uses one 12 – 15 passenger van to transport students to Bishop Park and the Barlow Gym. The Big Pine Education Center is funded through tribal grants and would be unable to share the vehicle with non-Big Pine Paiute programs.

- The **Kern Regional Center (KRC)** is one of California's 20 centers which receive funding through the State Department of Developmental Services. In FY 2021-22 KRC spent $51,000 in ESTA bus passes for their clients in addition to contributing $24,000 a year to ESTA in support of the Route 395 from Lancaster.

- The **Veteran's Services Office** for Inyo and Mono Counties is operated out of the Inyo County Sheriff's Office. Gas vouchers are provided to veterans with financial disadvantages. Additionally, the Veteran Service Office assists veterans in coordinating and funding transportation to any VA appointment that falls under ESTA's established routes. Transportation is also coordinated through the Veterans of Foreign Wars (VFW) Post #8988 for any VA appointment outside of ESTA's routes.

COORDINATION OF SERVICES

A comprehensive inventory of the above services providing transit can be found under Appendix F. Various social service providers offer services to both Inyo and Mono Counties under one organizational umbrella. The Inyo Mono Area Agency on Aging (IMAAA) and Inyo Mono Association for the Handicapped

(IMAH) are excellent examples of this type of collaboration. ESTA has coordinated with different human service agencies and other regional entities in the area in the following ways:

-The majority of agencies surveyed purchase ESTA bus passes for their clients.

-The various human service agency departments within the counties coordinate with each other in terms of transportation. Examples of where this is happening includes the following:

IMAH coordinates with ESTA to provide transportation outside of ESTA service hours.

ESAAA coordinates with ESTA, Northern Inyo Hospital, and Medical Insurance providers to meet their client's needs for transportation.

Mammoth Hospital coordinates with ESTA and Northern Inyo Hospital to get clients to and from appointments.

-ESTA provides training for seniors on how to use the transit system.

-ESTA has provided driver training for IMAH drivers.

STAKEHOLDER AND TRANSIT PROVIDER OUTREACH

During December 2021, two questionnaires were distributed to regional stakeholders and social service transit providers to better understand current capacity and needs. A total of twelve respondents participated in the questionnaire (six stakeholders and five transit providers). The following provides an overview of their responses with a summary of the challenges, resources, and needs each respondent expressed. A detailed overview of survey responses can be found in Appendices G and H. The survey participants included staff from the following agencies and/or providers:

- Inyo Mono Association for the Handicapped
- Kern Regional Center
- ESAAA/ Inyo County Health and Human Services
- First 5 Mono
- Bishop Indian Head Start
- Mammoth Hospital
- YARTS
- Caltrans
- Bishop Care Center

Funding

The transportation providers use a variety of funding sources to provide their services including tribal, state, federal, and local county funds. Most of the providers and stakeholder are currently not aware of the FTA's 5310 funds and would like to learn more about how to receive this assistance. Biennial community workshops could help educate regional service providers and stakeholders about the FTA 5310 eligibility and requirements for applying for funding.

Major Challenges

Providers were asked whether they have endured any major challenges over the last three years. While most indicated no, Bishop Indian Head Start indicated that they have had to retire two of their buses due to new EPA regulations. This has left them without a back-up vehicle for when another vehicle needs maintenance.

Transportation Needs

When asked about current transportation needs, providers indicated that expanded hours of service and increased connections to out-of-area medical services would benefit their clients. Mammoth Hospital specifically would like more coordinated services for Inyo and south Mono County residents to be able to access their services. Others noted that ESTA needs to employ more Spanish-speaking staff members (particularly in DAR dispatch) as they get complaints that their clients are unable to use the services due to language barriers.

MAJOR BARRIERS TO COORDINATION

Despite good intentions, there are multiple factors which limit the various transportation providers' ability to coordinate resources and trips. Major barriers to coordination were discussed with stakeholders, current transportation staff members, and Inyo and Mono Counties representatives. Through these discussions, major issues include:

- One of the more significant barriers to coordination in Inyo and Mono Counties is the distance between communities and out of county medical/social services. The geographic region is approximately 13,300 square miles with US 395 spanning the distance of about 240 miles between the south border of Inyo County and the north border of Mono County. Most specialized medical services (located in Reno, Carson City, and Los Angeles) are 85 to 125 miles beyond each county's borders. Trips for the transit dependent population to Reno or Los Angeles require at least a full day of travel and often an overnight stay. As such, it is difficult to coordinate human service agency transportation needs as there is a vast array of destinations combined with a relatively small population.

- Some transportation clients require a high level of "hands on" assistance throughout the duration of the trip. A client with dementia or developmental disabilities for example could require some level of assistance with their trip. Coordination efficiency is limited if door to door transportation is required, particularly for longer trips.

- As shown in Appendix A, multiple human service agencies have small vehicles available to transport passengers to appointments or other critical needs. Typically, vehicle insurance or agency/county/tribal/funding source rules prohibit the use of these vehicles by other entities. The use of these vehicles for client transportation purposes is also limited by staff time available.

- Although small, the fare for using public transit services can dissuade travel by low-income college students.

- Many human service agencies are unaware of the grant opportunities available to purchase vehicles for the purpose of transporting elderly and disabled clients. However, the regulations and reporting requirements attached to FTA funding vehicles and the lack of staff time to apply for a grant is a barrier to coordinating transportation.

The greatest barrier to coordination for all rural counties is lack of funding and staffing. There is simply not enough money available to meet all transportation needs for the target population through ESTA or human service agencies, particularly in outlying communities s. As such, the various human and social service agencies piece meal together trips for the most critical needs. Lack of funding/resources contributes to the limited staff time available for all agencies to pursue further coordination efforts.

DUPLICATION OF SERVICES

The primary goal of coordination is to maximize limited transportation resources by eliminating duplication of the same type of transportation services. Examples of duplication of services may include:

- Multiple agency vans providing transportation along the same route at the same time.
- Multiple volunteer driver programs which, if combined, could maximize the use of volunteers as well as administrative staff time.
- Vehicles which lay idle for a good portion of the week.
- Multiple contracts for vehicle maintenance. Through economies of scale, several agencies could potentially obtain a lower rate for maintenance.
- Eligibility requirements for program services sometimes result in duplication of services. For example, grant funding for senior services may only be used to transport seniors even if the van stops near a “non-senior” activity center.

Based on observation and outreach, there is not currently a significant duplication of services in Inyo and Mono Counties. For the most part, human service agencies refer transit dependent clients to ESTA when possible, and only provide transportation to/from destinations outside the public transit service area and hours. As insurance or other rules specific to the agencies limit vehicle sharing, there is likely some duplication of services among the agencies. The purchase of a shared vehicle for multiple agencies through FTA grant funding could eliminate the need for some of the agency vehicles and staff time.

GAPS IN SERVICE

As with all rural counties, Inyo and Mono Counties are plagued with the problem of how to connect transit dependent residents living in remote outlying areas to services in the larger communities and out-of-county urbanized areas. Some of the communities in the region are extremely small with less than 100 residents. Many of these communities such as Benton or McGee Creek have a large percentage of persons who are likely transit dependent (older adults, low income, persons with disabilities etc.)

It is not anticipated that the demographics of Inyo and Mono Counties will change significantly over the next five to ten years other than the population continuing to age in place. Therefore, there will always be a part of the transit dependent population who live far from the goods and services they require. Unfortunately, it is not anticipated that the level of public transit funding will increase to a point where ESTA can provide more frequent and convenient public transit service to and from all of these areas.

POTENTIAL COORDINATION OPPORTUNITIES

Based on an understanding of current services and the responses received in our transit providers and stakeholders survey (Appendices G and H), there are potential coordination opportunities for the multiple agencies in Inyo and Mono Counties including but not limited to shared vehicles, transit facilities, grant collaboration, travel training and driver training.

- Biennial FTA 5310 workshops to educate and assist local agencies in applying for funding.

- As demonstrated in the transportation provider inventory table in Appendix A, a few agencies have some type of a vehicle available to transport passengers. In many cases these vehicles cannot be shared with other agencies due to insurance requirements or other rules associated with the agency. If a new vehicle is needed for multiple transportation agencies, there is an opportunity to collaborate on FTA grant applications to purchase a new vehicle for joint use. Another option is for the transportation agency to purchase passes on ESTA's transit services.

- Shared transit and maintenance facilities particularly in Bishop and Mammoth would be a beneficial capital investment that could be shared between various agencies to reduce overall vehicle storage and maintenance cost. Both YARTS and IMAH indicated an interest in sharing a new vehicle maintenance facility with ESTA.

  Grant collaboration is a strategy to bring additional capital and operating funds together to provide the needed resources in order to offer the transit services that are needed by the residents of the region.

- Multiple training coordination opportunities exists between the agencies, including but not limited to travel training, driver training, wheelchair lift operation, sensitivity training, and DOT drug and alcohol administration training.

Chapter 12

COORDINATED PUBLIC TRANSIT-HUMAN SERVICES TRANSPORTATION PLAN

The final step in the coordinated planning process is to develop strategies to address the gaps in service and transportation needs, as identified in the previous chapters. The following coordinated strategies are based on the original coordinated strategies set forth in the 2014 Coordinated Plan, updated based on public input and current conditions to ensure that they meet current transportation needs for low income, older adults, and residents with disabilities.

EVALUATION CRITERIA

Through the previous coordinated planning effort, evaluation criteria were developed in order to rank proposed coordinated strategies. The criteria are listed below and were considered during the evaluation of the draft coordinated strategies at the public workshops. Three separate evaluation criteria were set forth and strategies were ranked in the following priority categories, according to how well each one met the evaluation criteria:

High Priority — meets all or most of the criteria
Medium Priority — meets some of the criteria
Low Priority — meets few or none of the criteria

Criteria 1: Coordination

How would the strategy build upon existing services? The strategy should:

- Avoid duplication and promote coordination of services and programs
- Allow for and encourage participation of local human service and transportation stakeholders

Criteria 2: Meets Documented Need

How well does the strategy address transportation gaps or barriers identified through the Coordinated Public Transit-Human Services Plan? The strategy should:

- Provide service in a geographic area with limited transportation options
- Serve a geographic area where the greatest number of people need a service
- Improve the mobility of clientele that are the focus of state and federal funding programs (i.e., low-income, elderly, persons with disabilities)
- Provide a level of service not currently provided with existing resources
- Preserve and protect existing services

Criteria 3: Feasibility of Implementation

How likely is the strategy to be successfully implemented? The strategy should:

- Be eligible for MAP-21 other grant funding.
- Result in efficient use of available resources.
- Have a potential project sponsor or individual champion with the operational capacity to carry out the strategy.

RECOMMENDED STRATEGIES

These coordinated strategies are intended to provide general guidance to ESTA as the serving Consolidated Transportation Service Agency and other transportation providers. The primary goal of this document is to provide background information and demonstrate the need for transportation services that can be used for the purpose of securing grant funding and ensuring that such funding will be well used to address the specific needs of the region. Detailed cost or ridership estimates are not provided, as it is intended these specifics will be finalized at a later stage in the development of the individual transportation services. The coordinated strategies as shown in Table 30 are intentionally broad, to allow for flexibility for implementation, as needs and funding sources may change over time.

Table 30: Recommended High Priority Coordinated Human Services Strategies 2022

	Lead Agency	Estimated Costs	Potential Funding Sources
Hire a Mobility Manager	CTSA/ESTA	$60,000 - $80,000/year	FTA 5311, TDA
Multi-organizational approach to solutions.	CTSA/SSTAC	Minimal	--
Continue to Develop and Maintain Support Services and Materials to Better Serve the Hispanic Population	ESTA	$10,000- $20,000/year	FTA 5311, TDA
Creating more full-time positions by sharing drivers with local agencies, school districts, etc .	ESTA	$8,000 per employee in annual benefits, offset by potential long-term savings from lower turnover.	--
ESTA to consider coordinating maintenance costs and resources with IMAH, Bishop Paiute Tribe, local school districts, and other social service transit providers.	ESTA	Potential Cost Savings	--
ESTA to donate retired vehicles to local agencies.	ESTA	Minimal	--

HIGH PRIORITY STRATEGIES

ESTA to Hire a Mobility Manager.

Often, a CTSA will hire a "Mobility Manager" position. Mobility management can be defined as the promotion, enhancement, and facilitation of access to transportation services, including the integration of coordination of services for individuals with disabilities, older adults, and low-income individuals. The underlying idea is to provide a travel method specific to the individual's needs which is appropriate and cost efficient. In other words, a "one stop shop" for transportation needs. One of the primary tasks of a Mobility Manager could be to implement and oversee the coordinated strategies. A Mobility Manager is also often tasked with seeking out and writing for applicable 5310 grants, coordinating outreach to human and social service agencies, scheduling driver trainings, conducting transit ambassador programs, and organizing volunteer driver programs.

As noted in the human service agency survey, many agencies do not have sufficient available staff time to pursue additional coordination activities even though there may be opportunities to improve mobility for the target population. Typically, the CTSA has greater background knowledge and more resources to undertake important tasks, such as applying for FTA grants, instigating coordination and communication between all human service agencies in the two counties, administering a volunteer driver/mileage reimbursement program and assisting other human service agencies with driver training. All these efforts take staff time and may require the addition of a new part-time or full- time position which focuses on coordination activities and implementation of the coordination strategies in this plan. A single new position could potentially address this responsibility along with providing expanded marketing efforts for ESTA.

ESTA and all the transportation providers in Inyo and Mono Counties are limited by funding available. Non-profit agencies have the ability to tap into certain human services related grant funds while ESTA receives sales tax revenues in the form of TDA funds for public transit operations. As Inyo and Mono Counties are geographically large and population centers are dispersed, it is not possible for one transit operator/agency to meet all the transit needs, hence the need for coordination among these agencies.

Capital expenditures such as vehicle replacement tend to be large expenditures. ESTA applies for Federal Transit Administration funding to pay for 80 percent of vehicle replacement costs. One way the ESTA could assist the non-public transit transportation providers is to assist with obtaining FTA 5310 funding. This grant source will pay for roughly 80 percent of the cost of a new vehicle for transportation needs of older adults and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. A Mobility Manager would be tasked with creating a workshop that shows eligible agencies how to apply for 5310 funding to procure necessary vehicles.

Multi-Organizational Approach To Solutions

This strategy calls for maintaining and establishing collaboration between various stakeholders (i.e., community development, health and human services, other government agencies, educational

institutions, non-profits, economic development, and private businesses) inside and outside the county to come up with solutions to transportation and other related issues by sharing information and resources, applying for funding, and working together to coordinate resources and services. This can be done by the creation of an email list serv, holding the SSTAC meeting twice a year, or inviting each other to existing meetings to help each other stay updated on resources and services.

This strategy also encourages continued and increased efforts by transit stakeholders to work with community-based organizations and other agencies directly to get the word out about events and to solicit feedback about different issues and projects. If the general public cannot attend meetings, stakeholders from community-based organizations and other agencies who work with the public can provide valuable input as they are maybe more familiar with the issues their clients/ community members face. This strategy can also be folded into the mobility management position.

Continue to Develop and Maintain Support Services and Materials to Better Serve the Hispanic Population

Components of this strategy would include hiring more bilingual drivers and dispatchers. While ESTA has produced translated marketing materials such as schedules, signs, brochures, web pages, public notices and translation service, feedback received during public outreach indicated that more verbal resources in Spanish would be helpful as well. Recent American Community Survey Census data indicates that there are a relatively high proportion of Hispanic/Latino residents in the region: Inyo (23 percent) and Mono (27 percent). This strategy would help fill the FTA Title VI and Language Assistance Plan requirements.

Creating More Full-Time Positions by Sharing Drivers with Local Agencies, School Districts, Etc.

ESTA, along with other organizations, are currently facing challenges in attracting and retaining drivers. One key factor that limits the attractiveness of these positions is the seasonal nature of many of the positions. In an effort to provide year-round full time driver positions in the region, ESTA should continue to pursue collaboration with regional social service agencies, school districts, and other transit providing entities to share drivers. As an example, drivers could operate school bus services during the school year, along with Reds Meadows ESTA service (and potentially peak holiday winter services) in other portions of the year. This would alleviate the inconsistency in driver employment from season to season.

ESTA To Consider Coordinating Maintenance Costs And Resources With IMAH, Bishop Paiute Tribe, Local School Districts, And Other Social Service Transit Providers

ESTA is currently considering providing some vehicle maintenance services in-house at the Bishop operations facility. It may be possible to also provide maintenance services for other transit providers in the region at a relatively low “marginal” cost. For instance, vehicle inspections could be provided using ESTA staff, increasing the ability to provide a full-time position while reducing costs to non-profits. It is recommended that ESTA continue to seek ways to collaborate and partner with agencies such as IMAH, the Bishop Paiute Tribe, local school districts, etc. in sharing resources related to maintaining vehicles.

ESTA To Donate Retired Vehicles To Local Agencies

It is recommended that ESTA create a retired vehicle donation program to local agencies in need of vehicles. While federal regulations consider vehicles to reach their "useful life" typically after 7 years, in reality many vehicles still can provide years of additional service (particularly for programs operating limited mileage). As examples, the El Dorado County Transit Authority and the Contra Costa Transit Authority both have programs to donate older vans to community-based organizations. For instance, the Contra Costa Transit Authority's "Community Connections Van Grant Program" disposes of old paratransit vans while providing community human service organizations the resources to offer transportation to clients who would otherwise ride the local paratransit service. The following summarizes requirements associated with the Contra Costa Community Connections program:

-The recipient must be a local non-profit organization or government entity whose primary purpose is to serve the elderly and disabled.

-The organization must be able to provide at least 50 trips each month to ADA-eligible clients. During a two-year provisional period, ADA passenger ridership data is recorded and reported monthly to Contra Costa Transit Authority, after which the organization is released from reporting requirements and the van is considered to be owned by the organization.

-Preference is given to organizations which have the greatest need for the vehicle, reliable funding sources, and could provide a large number of trips to clients.

-The community-based organization must repaint the van so that it is no longer recognizable as a public transit vehicle.

In order to distribute a retired van equitably, ESTA should implement an application and qualification process. In order to ensure that the donated vans are put to good use, some sort of reporting requirements should be implemented for a period of at least one year. To minimize ESTA's costs, the van recipient should be responsible for all vehicle maintenance.

MEDIUM/LOW PRIORITY

Create/Implement a Coordinated Marketing Plan

This strategy calls for the creation/implementation of a marketing plan about different transportation services offered along with other relevant information like eligibility criteria and available social services. Marketing and outreach can also take shape through improved communication between stakeholders; stakeholders can help distribute information and stay updated with information that can be passed on to their members. Gaps in knowledge about services lead to perceived unmet needs and can be a barrier to mobility. Brochures, an improved, website; and an automated phone service or reservation system could help improve outreach and marketing. This could be a job duty of the Mobility Manager position.

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Chapter 13
SERVICE ALTERNATIVES

The following presents a list of options for ESTA transit services that are designed to increase mobility for Inyo and Mono County residents and/or make ESTA services more efficient. Costs for the various alternatives were evaluated using a forecast FY 2022/23 cost model for the individual services, as shown in Table 31. This is based on the 2021/22 adopted ESTA budget spreadsheet, factored upward by 5 percent to reflect inflation.

US 395 SERVICE ALTERNATIVES

Expanded 395 Reno Days of Service

At present the 395 Reno service consists of one northbound run from Bishop to Reno/Sparks on weekday mornings, with the return trip every weekday afternoon. (While the schedule indicates that this service starts/ends in Lone Pine, the Bishop – Lone Pine segment is actually the Lone Pine Express connection). Ridership on this service pre-pandemic was relatively strong, with 7,950 boarding in FY 2018/19, or an average of 31 per day. While ridership did drop due to the pandemic (to 5,180 per day in FY 2020/21), this 27 percent reduction is relatively low compared with the overall ESTA reduction of 66 percent. Between the Reno and Lancaster services that both provide bus access to the region, the Reno route carries 63 percent of the total ridership. As such, it is an important link for residents and also provides economic benefit in allowing access by visitors and seasonal workers. Along the way, it also provides access between Inyo/Mono communities.

A variety of options were assessed regarding additional days of service each week, and for the various seasons. As shown in Table 32, the impact on operating costs ranges from $19,100 per year (for Summer only Saturday service) up to $121,300 per year for full 7-day-a-week service year-round. Ridership impacts were evaluated based on the following:

- Existing ridership by day of week, and changes in ridership due to the pandemic. For purposes of this analysis, it is assumed that overall ridership demand on the 395 routes returns to 90 percent of the pre-pandemic levels, absent any changes in service.

- A review of ridership origin/destination patterns by season, as shown in Table 33. As indicated, a majority of winter ridership is for travel within Mono/Inyo counties (largely between Bishop and Mammoth Lakes) while a majority of summer ridership is to/from Reno/Sparks (largely the Reno Tahoe International Airport).

- A review of relative activity at the Reno Tahoe International Airport by day of week.

Table 31: ESTA Operating Cost Allocation Model

FY 2022-23

FY 2021-22 Budget Line Item	Total	Variable	Fixed
Salaries, Benefits, and Insurance	$3,426,744	$2,491,211	$935,534
Other Post Employment Benefits	$59,539		$59,539
Fuel & Lubricants	$684,901	$684,901	
Vehicle Maintenance	$806,073	$806,073	
Professional Services	$496,343		$496,343
Utilities	$68,204		$68,204
Marketing/Advertising	$42,200		$42,200
Office Supplies and Equipment	$29,515		$29,515
Building Rental & Maintenance	$213,297		$213,297
Uniforms	$1,500	$1,500	
Employee Travel Expenses & Memberships	$17,820		$17,820
General Operating Expense	$105,015		$105,015
Mileage Reimbursement	$32,355		$32,355
Total Operating Expenditures	**$5,983,506**	**$3,983,684**	**$1,999,821**

FY 2022/23 Cost Model by Service

	Costs per Service Hour					
	Operational Salary, Benefits & Uniform	Vehicle Maintenance	Fuel	Total Marginal	Allocated Fixed	Total Allocated
Assumed Inflation Factor: 2021/22 to 2022/23	**5%**	**5%**	**5%**		**5%**	
Bishop DAR	$45.04	$6.89	$7.30	$59.23	$35.57	$94.80
Bishop Creek Shuttle	$45.04	$17.78	$16.64	$79.46	$35.57	$115.03
Night Rider	$41.49	$8.30	$8.80	$58.59	$35.57	$94.16
Lone Pine Express	$46.65	$27.58	$25.05	$99.28	$35.57	$134.85
Mammoth Express	$58.84	$27.79	$24.03	$110.66	$35.57	$146.23
Bishop to Reno (395 North)	$48.51	$23.33	$22.59	$94.43	$35.57	$130.00
Bishop to Lancaster (395 South)	$49.77	$26.22	$25.06	$101.05	$35.57	$136.62
Benton to Bishop	$39.43	$11.55	$12.24	$63.22	$35.57	$98.79
Lone Pine DAR	$39.43	$5.69	$7.54	$52.66	$35.57	$88.23
Walker DAR	$44.36	$4.84	$2.56	$51.76	$35.57	$87.33
Bridgeport to Carson City	$44.36	$14.29	$14.20	$72.85	$35.57	$108.42
Mammoth Fixed Route	$44.20	$7.61	$8.64	$60.45	$35.57	$96.02
Mammoth DAR	$35.40	$1.92	$2.55	$39.87	$35.57	$75.44
Town Trolley	$44.26	$13.69	$9.05	$67.00	$35.57	$102.57
Lakes Basin Shuttle	$42.92	$12.54	$8.41	$63.87	$35.57	$99.44
Reds Meadow Shuttle	$45.23	$24.30	$19.11	$88.64	$35.57	$124.21
MMSA	$42.54	$18.72	$14.73	$75.99	$35.57	$111.56

Source: ESTA FY 2021-22 Budget

Notes: Does not include Contingencies, Capital Costs, or Depreciation

Table 32: Service Alternatives for US 395/Intercity Routes

	Marginal Operating Characteristics					Ridership Impact		Annual	
	Add'l Vehicles Required	Operating Days	Veh Hrs per day	Annual Vehicle Hours	22/23 Operating Cost	(One-Way Trips) Daily	(One-Way Trips) Annual	Farebox Revenue	Subsidy Required
395 N to Reno									
Winter Only Saturday Service	0	22	12.6	277	$26,200	24	520	$8,500	$17,700
Winter Only Saturday and Sunday Service	0	44	12.6	554	$52,300	24	1,040	$17,000	$35,300
Summer Only Saturday Service	0	16	12.6	202	$19,100	33	520	$14,800	$4,300
Summer Only Saturday and Sunday Service	0	32	12.6	403	$38,100	33	1,070	$30,400	$7,700
Winter and Summer Only Saturday Service	0	38	12.6	479	$45,200	27	1,040	$23,300	$21,900
Winter and Summer Only Saturday and Sunday Service	0	76	12.6	958	$90,500	28	2,110	$47,400	$43,100
Year-Round Saturday Service	0	51	12.6	643	$60,700	25	1,300	$29,900	$30,800
Year-Round Saturday and Sunday Service	0	102	12.6	1,285	$121,300	26	2,700	$60,100	$61,200
395 S to Lancaster									
Winter Only Saturday Service	0	22	12.6	277	$28,000	11	240	$4,100	$23,900
Winter Only Saturday and Sunday Service	0	44	12.6	554	$56,000	9	410	$7,000	$49,000
Summer Only Saturday Service	0	16	12.6	202	$19,100	25	400	$6,800	$12,300
Summer Only Saturday and Sunday Service	0	32	12.6	403	$38,100	25	810	$13,800	$24,300
Winter and Summer Only Saturday Service	0	38	12.6	479	$48,400	17	640	$10,900	$37,500
Winter and Summer Only Saturday and Sunday Service	0	76	12.6	958	$96,800	16	1,220	$20,800	$76,000
Year-Round Saturday Service	0	51	12.6	643	$65,000	16	820	$15,500	$49,500
Year-Round Saturday and Sunday Service	0	102	12.6	1,285	$129,800	14	1,400	$25,400	$104,400
Lone Pine Express									
Lone Pine to Independence service Start at 7 AM not 6 AM	0	254	--	0	$0	-4	-1,020	-$5,400	$5,400
Provide Saturday Lone Pine Express Service	0	51	8.0	408	$40,500	16	800	$4,200	$36,300
Provide Saturday and Sunday Lone Pine Express Service	0	102	8.0	816	$81,000	14	1,400	$7,400	$73,600
Mammoth Express									
Mammoth Express Saturday Service	0	51	7.0	356	$39,400	25	1,300	$7,100	$32,300
Mammoth Express Saturday and Sunday Service		102	7.0	713	$78,900	23	2,300	$12,500	$66,400
Eliminate Bridgeport - Carson City Service	0	(38)	8.0	(303)	-$32,900	2	-91	-$664	-$32,200
Eliminate Bishop Creek Shuttle	-1	80	-3.5	(280)	-$22,200	-8	-661	-$2,700	-$19,500

- Consideration of the fact that, absent changes on the Lone Pine Express, new service to Reno on Saturdays and Sundays would not serve passengers to/from southern Inyo County communities.

- A review of available information regarding travel purpose on the route within the region.

- A small (5 percent) increase was also included for options that provide consistent 7-days-a-week service, as these provide a greater flexibility for travelers and is easier to market.

As indicated in Table 32, daily ridership would be greatest for summer service, estimated at 33 passenger per day for both Saturday and Sunday service. For full year-round daily service, up to 2,700 passenger-trips per year would be served. Farebox revenues were estimated by applying the current average fare per passenger, indicating that up to $60,100 in annual fares could be generated. The operating subsidy needed to implement new service ranges from a low of $4,300 (for summer Saturday service) up to $61,200 (for year-round 7-day-a-week service).

Beyond the ridership served by expanded 395 service, it is worthwhile to consider that persons (such as visitors) that arrive without a car tend to also use transit services while in the region. Providing additional transit options for intercity travelers arriving in Reno/Sparks by air, train, or intercity bus to get to Inyo/Mono Counties without a car can have additional, secondary benefits in encouraging car-free vacation trips and associated reductions in auto use.

Table 33: US 395 Reno Trip Origin/Destination Pattern

Between	Lone Pine/ Big Pine	Lone Pine/ Big Pine	Bishop	Bishop	Crowley Lake	Mammoth Lakes	Lee Vining	Total Inyo/Mono
And	Mammoth Lakes	Reno/ Carson City	Mammoth Lakes	Reno/ Carson City	Mammoth Lakes	Reno/ Carson City	Reno/ Carson City	Total Reno/Carson
Winter	0%	1%	54%	22%	10%	13%	1%	36%
Summer	3%	9%	39%	25%	3%	22%	1%	56%

Note 1: Summer data based on July 2019 and winter data based on February 2019.

Expanded 395 Lancaster Days of Service

The 395 Lancaster Route currently operates on weekdays only. A variety of options by day of week and season were evaluated, as shown in Table 32. Annual costs range from a low of $19,100 for summer Saturday service to $129,800 for year-round seven-day-a-week service. In assessing potential ridership, the following factors were considered:

- This route lost roughly half of the previous ridership due to the pandemic.

- As shown in Table 34, a relatively small proportion of passenger-trips are within Inyo County (12 percent in winter and 25 percent in summer). However, 21 percent of winter trips and 17 percent of summer trips are passengers traveling completely within Kern County or between Kern County and Lancaster. Overall, 67 percent of all ridership are traveling between Inyo/Mono Counties and points south (largely Lancaster) in winter and 58 percent in summer.

- The employment pattern for work trips along this corridor is more typical of the standard work week, rather than the 7-day-a-week employment pattern of Mammoth Lakes on the Reno corridor.

- This corridor provides access to many popular trailheads for the Pacific Crest Trail, John Muir Trail, etc., such as Onion Valley, Whitney Portal, and Horseshoe Meadows. As many of the backcountry users accessing these trailheads are from Southern California, those who hitchhike between US 495 and the trailheads could use expanded service during the summer.

- Consistent 7-day-a-week service is easier to understand and to plan round-trips around, leading to an additional modest ridership increase.

Potential daily ridership for additional days of service ranges from a low of 9 passengers per day for winter weekend service up to 25 passengers per day for summer Saturday or Sunday service. On an annual basis, ridership could be increased by up to 1,400 boardings per year. Applying the existing average fare per passenger, up to $25,400 in passenger revenues could be generated. The resulting increase in operating subsidy ranges from a low of $12,300 for summer Saturday service up to $104,400 for year-round all-day service.

Table 34: US 395 Lancaster Trip Origin/Destination Pattern

Between	Mammoth Lakes/ Bishop	Bishop	Bishop	Other Inyo	Other Inyo	Lancaster/ Kern Co	Total Inyo/Mono	Total Inyo/Mono
And	S. Inyo County	Lancaster	Kern County	Lancaster/ Kern Co	Other Inyo	Lancaster/ Kern Co	Total Lancaster/ Kern Co	Total Inyo/Mono
Winter	5%	27%	4%	35%	7%	21%	67%	12%
Summer	11%	15%	6%	36%	14%	17%	58%	25%

Note 1: Summer data based on July 2019 and winter data based on February 2019.

Start Lone Pine to Independence Service at 7 AM rather than 6 AM

The current Lone Pine Express schedule has one northbound departure that could serve a typical 8 AM work or school start time, departing Lone Pine at 6:10 AM. This current schedule does not provide a convenient travel time to travel from Lone Pine to Independence for work or school, as it arrives in Independence at 6:27 AM. However, this early start time is needed to provide connections in Bishop and

to serve passengers commuting to Bishop. Simply shifting the existing run later would reduce overall ridership. On the other hand, adding a new run to serve both times would require an additional bus and would increase costs by approximately $35,000 per year for little ridership. It would also create a short driver shift that would be inefficient and difficult to fill. This is therefore not considered further.

Provide Weekend Lone Pine Express Service

The Lone Pine Express currently operates on weekdays only. A reasonable option would be to operate three roundtrips per day on Saturdays, or on Saturdays and Sundays. This would incur an operating cost of $40,500 for Saturday service, or $81,000 for Saturday and Sunday service, operated year-round. Ridership for this service was evaluated based on existing ridership, the typical work pattern along the corridor (with a relatively high proportion of work in the traditional Monday-Friday pattern) and the fact that the limited shopping opportunities in the smaller communities tends to increase the need to travel to Bishop. This indicates a potential for an average of 16 passenger boardings per Saturday and 12 per Sunday. Over the entire year, this would increase ridership by up to 1,400 boardings. Subtracting estimated fare revenues, the operating subsidy required for this service would be $36,300 for Saturday service and $73,300 for Saturday and Sunday service.

Earlier Morning Service from Bishop to Lone Pine and Big Pine

Given the housing available in Bishop and the employment generators in Independence, there is a modest commute demand from Bishop to Independence. At present, the first southbound run arrives in Independence at 7:55 AM, which makes it difficult to consistently start work at 8 AM (particularly for employers such as the Department of Power and Water that are a few blocks' walk from the bus stop). While operating an additional run would be cost-prohibitive, it would be relatively inexpensive to start the southbound run from Bishop 5 or 10 minutes earlier and provide a longer layover in Lone Pine at the end of the run. Passengers should be surveyed to identify if they would prefer an earlier run and if they believed it would allow the route to serve more passengers.

Provide Weekend Mammoth Express Service

While transit routes serving a recreational area typically operate seven days a week, at present the Mammoth Express is operated Monday through Friday only. Weekend service could potentially serve several potential types of riders, including Mammoth Lakes employees that work weekends, Bishop residents accessing recreation in Mammoth Lakes and Mammoth Lakes / Crowley Lake residents shopping in Bishop. In winter, there would also be potential ridership generated by ski team members living in Bishop or other youth skiers. With three runs per day in each direction (morning commute, mid-day, and evening commute), this service would incur annual operating costs of $39,400 for Saturday service and $78,900 for Saturday and Sunday service.

Ridership is estimated based on existing daily ridership by season, employment patterns in Mammoth Lakes, and the observed pattern in daily ridership in other mountain resort areas. An estimate 25 passengers per day would use Saturday service and 20 per day on Sundays, over the course of the year,

resulting in 1,300 Saturday passengers and 2,300 total Saturday and Sunday passengers. Subtracting fare revenues yields a net operating subsidy of $32,300 for Saturday year-round service and $66,400 for full year-round seven-day-a-week service.

Weekly On-Call Service to Los Angeles.

As part of public input, a request was made for a weekly service for medical trips to the Los Angeles area, operated on demand. As the one-way travel time from Bishop to Los Angeles is approximately 5 hours, the California workplace rules limiting passenger-carrying drivers to a maximum of 10 hours per day means that drivers would have no time for serving various medical destinations in Los Angeles. In addition, ESTA already provides intercity connections to Los Angeles via Lancaster, and this would essentially be a duplication of an existing service. In addition, ESTA's Non-Emergency Medical Transportation (NEMT) is available to reimburse private drivers for the costs of medical trips; in FY 2020/21, this program funded 76 trips to Southern California medical facilities. For these reasons, this option is not considered further.

Eliminate Bridgeport to Carson City Service and Replace with Better Use of 395 Reno Service

The existing Bridgeport to Carson City offers service on Wednesdays only (on demand) that departs Bridgeport at 11 AM, arrives in Gardnerville around 1 PM and then departs southbound no later than 4:30 PM. Ridership has always been low and has been cut roughly in half due to the pandemic, to a total of only 91 boardings over the course of the 2020/21 fiscal year. This service incurs an operating cost (at forecast FY 2022/23-unit rates) of $32,900 per year. It charges substantial fares ($13 for a general public one-way ride from Bridgeport to Gardnerville, for example, and $11 for seniors/youth/persons with disabilities), but still requires $32,200 in subsidy per year.

If eliminated, one option would be to put the funding towards a fare discount program for norther Mono County residents on the US 395 Reno ESTA service. This schedule provides for a roughly four-hour stay in Gardnerville (sufficient for a medical appointment or shopping trip). A "deep discount" program for residents that apply for the discount could provide, for example, a 90 percent reduction in fare, yielding a fare of $1.30 per one-way ride. Service would be available five days a week (and potentially more in the future), providing much greater flexibility in travel planning. As virtually all of the medical and shopping facilities in Minden/Gardnerville are close to the 395 routes, establishing a policy of allowing some deviation for passenger requests to specific locations could fill much of the need for northern Mono County residents while providing much more useful access options.

Residents would need to apply for the reduced fare program and (depending on funding source) it may be appropriate to apply eligibility criteria. Actual ridership would depend on these criteria and marketing efforts. This approach could potentially serve many more trips, at lower cost. For example, at a 90 percent fare discount, approximately 500 passenger-trips could be provided for a subsidy of $6,000 each year.

Eliminate Bishop Creek Shuttle

The Bishop Creek Shuttle operates between Bishop and South Lake/Lake Sabrina during the summer only, providing a morning run (departing Bishop at 8 AM) and an afternoon run (departing Bishop at 4 PM). Each run requires 1 hour 45 minutes of running time, resulting in an annual cost of approximately $22,200 per year. Despite the fact that service has been offered since 2017, annual ridership has only reached a peak of 661 boardings per year (or an average of 4.1 passengers per run). Even considering the fare revenues, this service requires $30 in marginal public subsidy for every passenger served.

The challenge in providing this service is the limited potential ridership, and the fact that the limited number of daily runs reduces the attractiveness of the service. While additional runs could generate an increase in ridership, costs would also increase and at a higher rate, adding to the subsidy per passenger trip. If this service were to be eliminated, approximately $19,500 in subsidy funding could be reallocated to another service. There is also substantial wear and tear on the vehicle due to the steep climb of almost 5,000 feet of elevation.

Expand Trailhead Transit Access

Backpacking and through hiking the trails of the Sierra are an important summer activity in the region. ESTA services currently provide some access to trailheads (such as at Devil's Postpile and the Lake Basin), and it is worth considering options to expand such access, such as service to hiking trail heads such as Whitney Portal and Horseshoe Meadows near Lone Pine and Onion Valley near Independence. As evidenced by the experience with the Bishop Creek Shuttle, such service has substantial cost implications, and requires additional vehicles and drivers, while without other factors such as mandatory parking restrictions only generates limited ridership.

There is the potential for new shuttle services to be part of the solution for access issues, such as the overflow parking and congestion at Whitney Portal is a mess. However, experience in other similar recreational areas with high demand (such as Lake Tahoe and national parks) indicates that drivers will only choose to use a shuttle if there is a substantial limitation or cost on driving, such as a parking reservation system, or exceedingly high ($10 or $20 per day) parking fees. Otherwise, individual drivers will choose to try to park within walking distance of the trailhead (even if it means parking along a shoulder and partially blocking traffic lanes) rather than the inconvenience of waiting for a shuttle bus. While there are good examples of successful recreational intercept shuttle programs (Muir Woods, Zion National Park, Bear Lake in Rocky Mountain National Park), but they all require restrictions on the close-in parking and enforcement. Real-time information, like message boards just off 395 indicating "Trailhead Parking Full -- Use Shuttle ←" is also important. Without these other elements, a shuttle is largely only serving trail users arriving by transit (or air), which is a small proportion of possible ridership. As a result, such services would probably never meet ESTA's adopted performance standards.

Trailhead access also raises an issue as to the appropriate role of a public transit program versus private shuttle services. There are a number of private shuttle services in the region that offer trailhead access.

Using public dollars to provide service at below cost reduces the profitability of private services and could potentially reduce services in other seasons or to lesser-used trailheads.

In addition, ESTA does not currently have the vehicles needed to operate additional trailhead shuttle services. Operating on steep mountain roads also increases vehicle maintenance and fuel costs.
In sum, it is recommended that ESTA not pursue new trailhead shuttle services "on its own." However, ESTA should be open to providing service at marginal operating cost as part of an effort led by others (such as the Forest Service) to address trailhead access in a comprehensive manner. It is also worth noting that other alternatives addressed in this plan (such as expanded days of US 395 Route service) also could improve overall access for trail users.

MAMMOTH LAKES SERVICE ALTERNATIVES

A summary of the impacts of the various service alternatives considered for Mammoth Lakes is shown in Table 35.

Table 35: Service Alternatives for Mammoth Fixed Routes

	Marginal Operating Characteristics				Ridership Impact (One-Way Trips)		Annual	
	Add'l Vehicles Required	Operating Days	Annual Vehicle Hours	Operating Cost	Daily	Annual	Farebox Revenue	Subsidy Required
Earlier Lakes Basin Trolley Service	0	73	146	$9,300	22	1,600	$0	$9,300
Later Lakes Basin Trolley Service	0	73	146	$9,300	40	2,900	$0	$9,300
Earlier Summer Purple Route Service	0	73	37	$2,200	8	600	$0	$2,200
Earlier Winter Purple Route Service	0	131	66	$4,000	18	2,300	$0	$4,000
Earlier Offseason Purple Route Service	0	161	81	$4,900	7	1,100	$0	$4,900
Earlier Winter Red Route Service	0	131	262	$15,800	61	8,000	$0	$15,800
End Summer Trolley Service at Midnight	0	73	-146	-$9,800	-26	-1,900	$0	-$9,800
-- Weekdays Only	0	52	-104	-$7,000	-20	-1,000	$0	-$7,000
End Winter Trolley Service at Midnight	0	131	-262	-$17,600	-40	-5,200	$0	-$17,600
-- Weekdays Only	0	100	-200	-$13,400	-34	-3,400	$0	-$13,400
Expand Mammoth Service During Peak Winter Days	4	20	480	$53,000	1,152	23,000	$0	$53,000

Earlier Lakes Basin Trolley Service (Start at 7 AM rather than 9 AM)

The summer Lake Basin Trolley service currently operates from 9:00 AM to 6:00 PM, with the first westbound departure at 9:00 AM and the last eastbound departure at 5:30 PM. Two vehicles are operated over an hour-long route to provide service every 30 minutes. Ridership is moderately strong in the first hour of service (18 passengers boarding, in peak season) and earlier service could allow recreationalists to access the trailheads and lakes earlier on a summer day, allow resort employees to commute to work and also provide access to town for campground and resort guests earlier in the day.

One trolley could be used to operate new eastbound departures at 7:00 AM and 8:00 AM, before the current half-hourly service starts at 9:00 AM. Reflecting the peak visitor season, this additional service

would be operated from approximately June 26th through Labor Day weekend. This expansion would not require an additional vehicle and would incur an annual operating cost of approximately $9,300. Ridership is estimated, based on ridership during existing hours of service and the hourly variation in service on other recreational transit programs, to be 22 passenger-trips per day, or approximately 1,600 over the season.

Later Lakes Basin Trolley Service (Extend from 6 PM to 8 PM)

The Lakes Basin Trolley Service could be extended beyond the current end of service at 6:00 PM. Existing ridership is particularly strong in the last current hour of service and the long hours of daylight in the mid-summer encourages longer trips to the area. A reasonable option would be use one vehicle to offer new westbound runs at 6:00 PM and 7:00 PM, returning eastbound at 6:30 PM and 7:30 PM, from June 26 through Labor Day. This would increase annual operating costs by $9,300 and is estimated to generate at least 2,900 additional passenger trips, given typical hourly patterns of transit use on similar services.

Earlier Summer Purple Route Service (Start at 6:30 AM rather than 7 AM)

The Purple Route is a year-round service in Mammoth Lakes that is important in serving local residents, such as for traveling for work. At present, the route starts at 7:00 AM, year-round. Other mountain resort community transit services typically start service around 6:30 AM, allowing passengers to travel for work shifts starting prior to 8:00 AM. The need for early service is also indicated by the high ridership (an average of 14 passengers prior to the pandemic) in the 7:00 AM hour during the summer.

A reasonable alternative would be to start service at 6:30 AM during the peak summer season (June 26 through Labor Day weekend). This would have a relatively modest operating cost increase of $2,200 per year. Ridership, based on the relative hourly ridership in other mountain resort transit systems, would be increased by approximately 8 passengers per day, or 600 over the season.

Earlier Winter Purple Route Service (Start at 6:30 AM rather than 7 AM)

Ridership in the first hour of service on the Purple Route is particularly high in the winter (31 passengers on average during a sample period in February 2019), indicating a strong need for earlier service. Given the challenges of biking/walking at this time of day in the winter, earlier bus service would be more useful to the community in winter than summer. Adding a 6:30 AM run between mid-December and late April would add $4,000 in annual operating costs but would serve an estimated 2,300 passenger-trips each year.

Earlier Off-Season Purple Route Service (Start at 6:30 AM rather than 7 AM)

Purple Route service could also be provided one half-hour earlier in the off-seasons. Based on ridership patterns over the year, the incremental ridership in the off-seasons would be lower on a daily basis but would still total 1,100 passengers each year. Operating costs would be increased by $4,900 per year. Providing a consistent year-round earlier starting time for those residents commuting to work for early

shifts (such as restaurant workers) year-round would be an additional convenience to the community. In total, year-round service starting at 6:30 AM would increase costs by $11,100 per year, while serving an estimated 4,000 passenger-trips per year.

Earlier Winter Red Route Service (Start at 6 AM rather than 7 AM)

The Red Route is by far the most productive winter Mammoth Lakes route, carrying 48 percent of the ridership among the routes operated in winter. Service currently starts at 7:00 AM, heading from Snowcreek Athletic Club towards the Mammoth Main Lodge, with three buses operating 20-minute frequency. As this is an hourly round-trip for each bus, some first service times are substantially later. For example, the first departure from the Vons area towards Snowcreek is at 7:44 AM. This first hour of service is very productive; a sample of ridership logs for February 2019 indicates that boardings between 7:00 AM and 8:00 AM total 9.4 percent of daily boardings. Starting the existing three buses one hour earlier between mid-December and late April would incur $15,800 in annual operating costs. It would serve an estimated 8,000 passenger-trips per year.

End Summer Trolley Service at Midnight

While the Town Trolley service overall generates particularly good ridership, ridership between Midnight and the end of service at 2:00 AM is relatively low, totaling only 2.3 percent of daily ridership. This late-night service consists of a single trolley operating a shortened route that does not serve Canyon Lodge and Juniper Springs) after Midnight. Ending service at Midnight would eliminate service currently serving an average of 26 passengers per day but would save $9,800 in annual operating costs. However, it would reduce the benefit of late-night transit service on reducing drunk driving.

Another option would be to maintain the current 2:00 AM service end time for Friday and Saturday nights only, ending service at Midnight on Sunday to Thursday nights. This would still save $7,000 in operating costs per year but reduce the ridership loss to 1,000 boardings per year (20 per day).

End Winter Trolley Service at Midnight

Late night Trolley ridership is higher in the winter than in the summer, averaging 40 passengers per day or 5,200 passenger per winter season. Eliminating this service entirely would reduce operating costs by $17,600 per year. If service is ended at Midnight only on weekdays (other than 8 holidays per winter), the loss in ridership would be reduced to 3,400 per season (an average of 34 per day) while saving $13,400 in operating costs.

Providing Additional Runs on Mammoth Fixed Routes in Peak Winter Periods

Reflecting the importance of public transit in Mammoth Lakes, the LSC team identified peak periods (the Christmas/New Year's Holidays, Presidents Day Weekend, Spring Break, etc.) when peak passenger demand exceeds the carrying capacity of the ESTA Mammoth Lakes fixed route services. This is

particularly the case for the Red Route when buses get delayed by traffic congestion to/from the Main Lodge. There are significant issues with increasing capacity for the limited peak periods:

- Additional drivers would be required, adding to ESTA's (and many other employers) driver shortage problems.

- Additional fleet would be required. For short-term needs like peak winter periods, one option would be to contract with a private transportation firm to provide both drivers and vehicles during peak periods as it is not cost-effective to purchase and maintain fleet only for a limited number of days of service per year. To reflect the vehicle costs, a contractor's charges would be substantially higher than ESTA's typical costs. A reasonable cost factor is $50 above ESTA's operating cost factor. Assuming 4 vehicles operating 6 hours per day over 20 days per winter season, the estimated contract cost (with vehicles) would be about $53,000 per year. As this service would focus only on the busiest periods, the passengers per vehicle-hour would be at least the average value for the Red Route, indicating that this additional service would serve 23,000 per year.

In summary, providing additional capacity in peak periods would be a substantial improvement in overall quality of winter service, but it would come at a substantial cost.

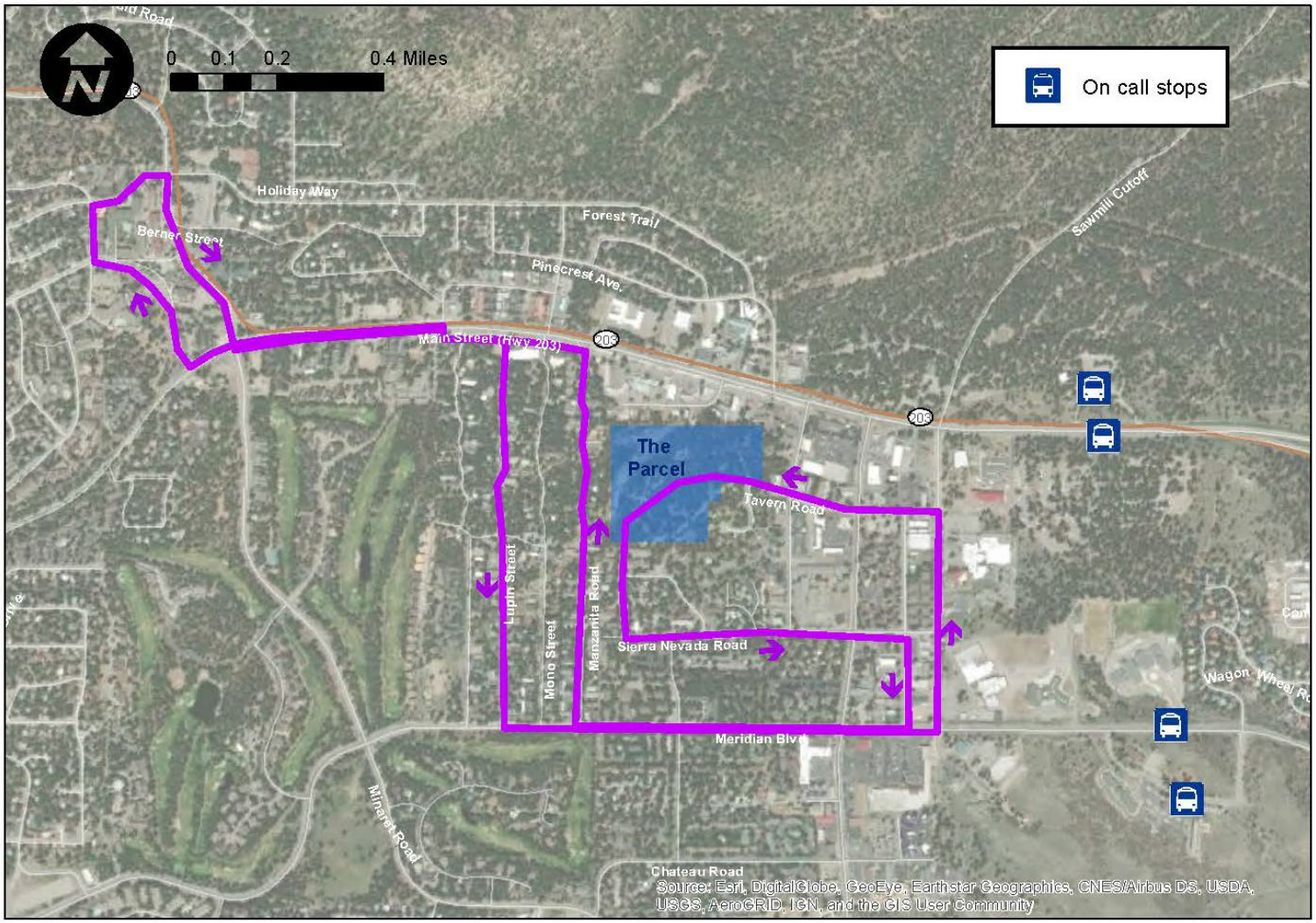
Revision to Mammoth Lakes Service to Serve "The Parcel"

"The Parcel" is a substantial new affordable housing project located within center Mammoth Lakes, as shown in Figure 27. An initial phase (under construction with opening planned in 2023) will consist of 80 housing units plus amenities. Ultimately, this 25-acre site could consist of up to 580 units, and as such will be a substantial transit demand generator. It will be accessed by a westward extension of Tavern Road through the site to tie Chaparral Road, serving two transit stops in the property with through access. All roads are planned to be built as part of the first phase of development.

At present, the closest stops to The Parcel site are located along Main Street near the Post Office driveway to the west of Center Street and near the Forest Trail intersection to the east, which are a four-to-five-minute walk. These stops are served by the Red Route and evening Trolley service in winter and by the Town Trolley service in summer. In the off seasons, the closest stop on the Purple Route is on Old Mammoth Road north of Tavern Road, a six-minute walk. While these are reasonable walks to a bus stop, optimally The Parcel would be provided with direct transit service upon the opening of Phase I.

The Purple Route is the logical route to be modified to serve The Parcel. This route is provided year-round. In addition, other nearby routes such as the winter Red Route carry high levels of visitors and other longer-distance passengers that would be inconvenienced if their route were to be modified to serve The Parcel. The Purple Route currently consists of a single vehicle operating two slightly different routes every other half hour.

Figure 27:
Purple Route Revisions to Serve The Parcel



For the first 30 minutes of each hour, it operates a route that includes stops at the Cerro Coso College and the High School as well as north on Sierra Park Road to Tavern Road, and south on Sierra Manor Road, before heading west to the Manzanita/Lupin neighborhood and The Village. On the other half hour, the route drops the service to the college and high school, instead extending north on Sierra Park Road to Main Street, east to the RV Park and Welcome Center, back west on Main Street to Old Mammoth Road, south to Tavern Road, and east to Sierra Manor Road, with the remainder of the route identical to that of the first half hour. Both operations are roughly 5.8 miles in length.

If the loop including the college were extended to The Parcel, it would be 6.9 miles in length, or 0.9 miles longer than at present. Adding The Parcel service to the second hourly loop that serves the RV park would result in a 6.3-mile-long loop (0.5 miles longer). There is not sufficient available running time within the existing total hourly route to add service to The Parcel on both half-hour runs, though there probably is sufficient running time to add service on the second run (which also serves the RV Park). This would provide hourly service directly to The Parcel.

The other option would convert the existing stops on the two individual route extensions to "on demand stops," whereby passengers wishing a pickup would call or use an app to request a ride (at least 10 minutes prior to the beginning of each half-hourly run) and passengers boarding at other locations wishing a drop-off at an on-demand stop would simply make a request to the driver. The specific list of on-demand stops would be as follows:

- Cerro Coso College
- Meridian Elementary School
- Mammoth Mountain RV Park
- Mammoth Lakes Welcome Center
- Shilo Inn
- Gateway Center

These stops could be served during the daytime when ESTA dispatchers are on duty. Fixed service to The Parcel would be added by revising the route as shown in Figure 27, with the remainder of the route operated every half hour, regardless of requests. This "base route" is 5.6 miles in length. The potential that more than a few requests are made in any half-hour period would be low (particularly as the schools tend to generate in periods opposite that of the RV park and Visitors Center). This would provide the opportunity for service every half-hour. While this option would require more detailed evaluation of passenger activity at individual stops, it may well reduce operating costs slightly; the hours of service would remain unchanged, while unproductive mileage could be reduced.

DIAL-A-RIDE SERVICE ALTERNATIVES

Bishop Microtransit Service

The Bishop Dial-a-Ride program has proven to be an effective and convenient means of meeting the mobility needs of Bishop area residents. While it currently carries 27,400 passengers per year, prior to the

pandemic it was carrying up to 44,000 passengers per year. Productivity for the service is 4.0 passengers per vehicle-service hour, which is relatively high for a door-to-door service, and the Nightrider evening DAR is even more productive at 5.0 passengers per vehicle service-hour. The program provides service in a large area reaching from Laws in the northeast to Cerro Coso College in the southwest, encompassing approximately 25 square miles. It also provides a substantial "span of service," operating last as 2:00 AM on Friday and Saturday evenings, and also providing service Sunday. It is open to all types of passengers (rather than only seniors or persons with disabilities).

As an aside, consideration was given to implementing a fixed route service in the Bishop DAR service area. However, the area's development pattern does not lend itself to an effective fixed route service. Outside of the immediate Bishop core area, the through street network in the unincorporated portions of the DAR service area is extremely limited. While fixed route service could be provided along major roadways (such as Line Street, Barlow Lane, US 395, Brockman Lane, and See Vee Lane), the majority of the residences (and many of the existing DAR passengers) are more than a five-minute walk from these through streets, making fixed route service inconvenient. Providing fixed route loops in the individual residential areas, moreover, would require additional vehicles, would be costly and would result in long travel times. With fixed route service, moreover, the Americans with Disabilities Act would require that parallel DAR service (limited to eligible disabled passengers only) still be provided. In short, a fixed route service would provide a lower quality of service for many of the existing non-disabled passengers. A demand-response service is therefore a more appropriate form of transit service for the Bishop area.

Over the last several years, the concept of "microtransit" has seen increasingly widespread application across the nation. The goal of microtransit service is to provide coverage over an area not served efficiently by fixed-route service with a short response time, typically within 15 minutes of the request. Microtransit applies the app-based technology developed for transportation network companies (such as Uber and Lyft) to provide a new form of public transit service in lower demand and lower density areas. While the concept of real-time, demand-response service has been envisioned for many years, it could not be effectively implemented until recently with the advent of new technology. Passengers typically use an app downloaded on their smartphone or computer to request a ride and a routing algorithm (rather than a dispatcher) assigns the ride request to a specific driver/vehicle. The passenger is provided with an estimated service time, and fares are typically handled through the app. In addition, to ensure equitable accommodation, rides may also be requested directly over the phone. However, most trips are assigned without the need for manual dispatching. As microtransit is a shared-ride service, multiple passengers may be on the vehicle at the same time. Requirements of the Americans with Disabilities Act may be met by ensuring that a sufficient number of accessible vehicles are available to serve those who require accessible service.

A few examples of publicly operated microtransit services are as follows:

- The Cheyenne Transit Program shifted its paratransit program from traditional Dial-a-Ride to microtransit. Over the first six month of microtransit service, productivity increased from 2.1 passenger-trips per vehicle-hour to 3.6.

- As a result of the pandemic, the Citibus system in Lubbock, Texas reduced fixed route service from half-hourly to hourly in the peak periods, and also implemented an in-house microtransit program called "Citibus On-Demand." Rides are booked through the Spare Labs app, available through the App Store, or by calling in. The pilot program was fare-free, but a fare of $2.00 was subsequently added. Up to 14 vehicles are in operations at peak times, with approximately 10 during midday. With an average of 205 passenger-trips per day, productivity is in the range of 1.0 to 1.5 passenger-trips per vehicle-hour.

- The Regional Transportation Commission (RTC) of Washoe County in Reno, Nevada has implemented their FlexRIDE service using this concept. These are operated by a contractor and a base fare of $2.00 is charged, with a discounted fare of $1.00. Service is provided from 5:30 AM to 11:00 PM. Rides may be scheduled using a smartphone app or by calling the FlexRIDE dispatch center. Rides are scheduled on a first-come/first-served basis. Depending on the level of demand at any moment, the response time may be much higher than 15 minutes and RTC does not publish a standard response time for trip requests. The passenger is informed when making the request, either using the app or by phone, of the time the ride will be scheduled and may accept/reject that scheduled time. The pick-up time is then set within a window of 15 minutes of the scheduled time. This approach has allowed RTC to extend service into low density, low demand areas and expand coverage within their service area. The areas were defined to replace low-productivity route areas, and each service also connects with key nearby activity centers (such as medical facilities) as well as major transit stops. Annual ridership is currently approximately 60,600 boardings per year. Requiring a total of approximately 13,400 vehicle-hours of service, in total this service carries approximately 3.5 passenger-trips per hour.

- Placer County (California) contracts for the TART Connect service, which provides microtransit service in three zones encompassing the West Shore and North Shore of Lake Tahoe. These services are operated in both summer and winter and began service in the summer of 2021. Total summer ridership was just under 50,000 boardings, with productivity ranging from 5 to 8 boardings per hour. Note that ridership is augmented by the many visitors staying in the area, and also by the fact that the service is free to the rider.

Under this alternative, ESTA would purchase and implement an app (and associated automated dispatching software) for the existing Bishop Dial-a-Ride and Nightrider evening service. There are several companies currently offering such packages (such as Spare Labs, Via and TripSpark), and it would be appropriate to select a vendor through an RFP process. ESTA drivers would continue to operate the service, along with ESTA dispatchers. The app would be available to passengers for free download, and those with the technology and ability to use the software to request trips would do so. Others could continue to call the ESTA dispatch office (where the dispatchers would enter the request into the software) and standing subscription trips (such as individuals regularly going to a senior meals program, as one example) could be made, avoiding the need for ongoing individual bookings. (As an example, 48 percent of the passenger trips on the STARNow microtransit program in Terrell Texas are booked through the app, while the remainder are either phone requests or standing subscription trips.)

The software would then organize the trips, and drivers would generally follow instructions received through devices on the vehicles. ESTA dispatchers would manage the phone reservations and address operational issues as they arise, with the ability to override the software. It is expected (based on discussions with staff at other agencies that have implemented microtransit) that no reduction in dispatch staff would occur in the short term, though the demands of the dispatcher job would be eased. With the app software handling many if not most of the trip requests, dispatchers could focus on addressing the unusual requests or addressing service issues as they arise.

The cost of obtaining and maintaining the software would be determined through the RFP process and is difficult to specify. One current provider, given the general parameters of the existing Bishop DAR service, indicated an annual cost about $25,000 to $30,000 per year (with no initial set-up costs).

Microtransit has the potential to provide a higher quality demand response service (faster response times), increase the capacity of the system within the existing vehicle-hours of service and to improve the working conditions of ESTA staff. The increased convenience of the ride request service could also lead to long-term increases in ridership, though there is not sufficient professional literature on which to base specific forecasts. Additional automated data collection and report that over time could also allow better allocation of resources.

Earlier Weekend Morning Bishop DAR Service

The Bishop DAR service currently starts at 8:30 AM on Saturdays and 8:00 AM on Sundays. Providing earlier service could allow Bishop residents to get to early morning weekend shifts (such as restaurant workers) as well as to attend early religious services. Based on existing ESTA ridership and the relative ridership by time of day in similar services, starting service on both days of the week at 7:00 AM would add an estimated 4 boardings per day on Sunday and 7 boardings per day on Saturday, equal to 200 annual boardings on Sundays and 300 on Saturdays. This additional service would incur a cost of $7,600 per day of additional service as shown in Table 36.

Later Bishop DAR Sunday Service

Sunday service currently ends at 1 PM. The service hours could be extended using a single DAR vehicle. If service is extended to 3 PM, operating costs would be increased by $6,000 per year. Based on ridership by hour data for similar systems that provide Sunday DAR service, only 3 passenger-trips per day would be served or 150 per year.

Table 36: Service Alternatives for Dial-A-Ride Routes

	Marginal Operating Characteristics				Ridership Impact (One-Way Trips)		Annual	
	Add'l Vehicles Required	Operating Days	Annual Vehicle Hours	Operating Cost	Daily	Annual	Farebox Revenue	Subsidy Required
Earlier Saturday Morning Bishop DAR Service	0	51	128	$7,600	6	300	$700	$6,900
Earlier Sunday Morning Bishop DAR Service	0	51	102	$6,000	4	200	$500	$5,500
Later Bishop DAR Sunday Service	0	51	102	$6,000	3	150	$300	$5,700

Performance Analysis of Service Alternatives

The service alternatives discussed above can be evaluated in a performance analysis, applying the recommended service standards presented in earlier Chapters. Note that not all performance measures apply to each service type. Also, it is not possible to calculate each performance measure for each service alternative; for example, an alternative that does not change vehicle-hours of service cannot be evaluated based on the passenger-trips per vehicle-hour of service.

Table 37 presents the performance analysis. Input data is provided in the center portion of the table, while the right side of the table presents the resulting performance measure. In addition, the performance measures applicable to each service type are presented. The results are summarized below.

395 Reno Services Alternatives

As also shown in Figure 28, all of the alternatives achieve the standard of 2.0 passenger-trips per vehicle-hour of service, with the exception of the winter only services (Saturday only, or Saturday and Sunday), which are at 1.88. All alternatives achieve the 10 percent farebox ratio standard, and the standard of not exceeding $1.00 subsidy per passenger mile. Of these alternatives, the best performer is the Summer Only Saturday and Sunday Service, with 2.66 passenger-trips per vehicle-hour, an 80 percent marginal farebox return ratio and requiring only $0.06 in subsidy per passenger-mile. Summer Only Saturday Service is only slightly behind. The Winter and Summer services achieve a lower set of values (2.20 passenger-trips per vehicle hour), while the year-round service is only slightly above the 2.0 passenger-trips per vehicle-hour standard, at 2.10 for Saturday/Sunday service and 2.02 for Saturday-only service. Overall, these results indicate a logical strategy (depending on funding availability) of providing 7-days-a-week service starting with summer service only, then expanding to summer and winter 7-day-a-week service and ultimately achieving year-round seven-day-a-week service if ridership warrants.

395 Lancaster Service Alternatives

Overall, service expansion on the Lancaster route performs poorer than service expansion on the Reno route. However, the summer-only Saturday and Sunday service does meet all three defined performance measures. Most of the alternatives achieve the subsidy per passenger-mile standard, while all achieve the farebox recovery ratio standard. These results indicate a logical path of starting with summer Saturday (or both Saturday and Sunday, depending on funding availability) service. If demand expands, weekend service in additional seasons may be feasible, but likely not within the five-year period of this SRTP.

Lone Pine Express Service Alternatives

Neither of the weekend service expansion alternatives meet the productivity (passengers per vehicle-hour) or subsidy per passenger-mile standards, though both are close to the 10 percent minimum farebox ratio standard. Saturday service performs better than combined Saturday and Sunday service. Starting Lone Pine service at 7 AM is not a beneficial change, in that it reduces ridership without any corresponding reduction in operating costs.

Mammoth Express Service Alternatives

The expansion of Mammoth Express service to Saturdays or to both Saturdays and Sundays both well exceed the minimum performance measures and could be justified depending on available funding levels.

Bridgeport – Carson City Service Alternative

Eliminating the Bridgeport—Carson City Service (and potentially replacing it with a fare subsidy program for these passengers) is very consistent with the performance measures, as it would eliminate a service that far from meets any of the pertinent standards.

Bishop Creek Shuttle Service Alternative

This service currently meetings the minimum productivity of 2.0 passenger-trips per vehicle hour (at 2.36) and a farebox return ratio of 12 percent (exceeding the standard of 10 percent). However, it requires a subsidy of $30 per passenger-trip. Eliminating this service would therefore be consistent with the latter performance measure, but not consistent with the first two measures.

Mammoth Lake Fixed Route Service Alternatives

As also shown in Figure 29, four alternatives regarding Mammoth Lakes service meet the 17.0 passengers per vehicle-hour productivity measure: later Lakes Basin Trolley service, earlier Purple Route service in the winter, earlier Red Route service in the winter, and expanding peak winter service. Note that ending the winter Trolley service at Midnight would not be consistent with the standard in that it would eliminate service that currently attains the performance measure. One other potential service expansion—earlier Purple Route service in summer—is just below the performance measure at 16.22

passenger-trips per vehicle-hour. Overall, this performance analysis indicates a substantial potential to expand the hours of Mammoth Lakes services, in both winter and summer.

The modification to the Purple Route to serve The Parcel cannot be evaluated using the productivity measure, as it does not change the number of vehicle-hours of service. However, as it increases ridership and expands transit access, it can be considered to be consistent with the goals and objectives of ESTA.

Table 37: Service Alternatives Performance Review

	Marginal Operating Characteristics						Performance Measures			
	Add'l Vehicles Required	Vehicle-Hours	Operating Cost	Ridership	Fare Revenue	Subsidy	Passengers per Vehicle Service Hour	Farebox Recovery Ratio	Subsidy per Psgr-Trip	Subsidy per Psgr-Mile
							Attains Performance Standard			
							Does Not Attain Performance Standard			
							SRTP Performance Standards			
REGIONAL SERVICES							2.00	10%	--	$1.00
395 N to Reno										
Winter Only Sat Svc	0	277	$26,200	520	$8,500	$17,700	1.88	32%	$34	$0.29
Winter Only Sat and Sun Svc	0	554	$52,300	1040	$17,000	$35,300	1.88	33%	$34	$0.29
Summer Only Sat Svc	0	202	$19,100	520	$14,800	$4,300	2.57	77%	$8	$0.07
Summer Only Sat and Sun Svc	0	403	$38,100	1070	$30,400	$7,700	2.66	80%	$7	$0.06
Winter and Summer Only Sat Svc	0	479	$45,200	1040	$23,300	$21,900	2.17	52%	$21	$0.18
Winter and Summer Only Sat and Sun Svc	0	958	$90,500	2110	$47,400	$43,100	2.20	52%	$20	$0.17
Year-Round Sat Svc	0	643	$60,700	1300	$29,900	$30,800	2.02	49%	$24	$0.20
Year-Round Sat and Sun Svc	0	1,285	$121,300	2700	$60,100	$61,200	2.10	50%	$23	$0.19
395 S to Lancaster										
Winter Only Sat Svc	0	277	$28,000	240	$4,100	$23,900	0.87	15%	$100	$1.42
Winter Only Sat and Sun Svc	0	554	$56,000	410	$7,000	$49,000	0.74	13%	$120	$1.71
Summer Only Sat Svc	0	202	$19,100	400	$6,800	$12,300	1.98	36%	$31	$0.44
Summer Only Sat and Sun Svc	0	403	$38,100	810	$13,800	$24,300	2.01	36%	$30	$0.43
Winter and Summer Only Sat Svc	0	479	$48,400	640	$10,900	$37,500	1.34	23%	$59	$0.84
Winter and Summer Only Sat and Sun Svc	0	958	$96,800	1220	$20,800	$76,000	1.27	21%	$62	$0.89
Year-Round Sat Svc	0	643	$65,000	820	$15,500	$49,500	1.28	24%	$60	$0.86
Year-Round Sat and Sun Svc	0	1,285	$129,800	1400	$25,400	$104,400	1.09	20%	$75	$1.07
Lone Pine Express										
Lone Pine to Independence Svc Start at 7 AM	0	0	$0	-1020	-$5,400	$5,400	--	--	-$5	-$0.15
Provide Sat Lone Pine Express Svc	0	408	$40,500	800	$4,200	$36,300	1.96	10%	$45	$1.30
Provide Sat and Sun Lone Pine Express Svc	0	816	$81,000	1400	$7,400	$73,600	1.72	9%	$53	$1.50
Mammoth Express										
Mammoth Express Sat Svc	0	356	$39,400	1300	$7,100	$32,300	3.65	18%	$25	$0.64
Mammoth Express Sat and Sun Svc		713	$78,900	2300	$12,500	$66,400	3.23	16%	$29	$0.74
							SRTP Performance Standards			
							2.00	10%	$10	--
Eliminate Bridgeport - Carson City Svc	0	(303)	-$32,900	-91	-$664	-$32,200	0.30	2%	$354	$8.63
Eliminate Bishop Creek Shuttle	-1	(280)	-$22,200	-661	-$2,700	-$19,500	2.36	12%	$30	$1.34
							SRTP Performance Standards			
MAMMOTH FIXED ROUTE (SUMMER AND WINTER)							17.00	--	--	--
Earlier Lakes Basin Trolley Svc	0	146	$9,300	1600	$0	$9,300	10.96	0%	$6	$1.45
Later Lakes Basin Trolley Svc	0	146	$9,300	2900	$0	$9,300	19.86	0%	$3	$0.80
Earlier Summer Purple Route Svc	0	37	$2,200	600	$0	$2,200	16.22	0%	$4	$0.92
Earlier Winter Purple Route Svc	0	66	$4,000	2300	$0	$4,000	34.85	0%	$2	$0.43
Earlier Offseason Purple Route Svc	0	81	$4,900	1100	$0	$4,900	13.58	0%	$4	$1.11
Earlier Winter Red Route Svc	0	262	$15,800	8000	$0	$15,800	30.53	0%	$2	$0.49
End Summer Trolley Svc at Midnight	0	(146)	-$9,800	-1900	$0	-$9,800	13.01	0%	$5	$1.29
-- Weekdays Only	0	(104)	-$7,000	-1000	$0	-$7,000	9.62	0%	$7	$1.75
End Winter Trolley Svc at Midnight	0	(262)	-$17,600	-5200	$0	-$17,600	19.85	0%	$3	$0.85
-- Weekdays Only	0	(200)	-$13,400	-3400	$0	-$13,400	17.00	0%	$4	$0.99
Expand Mammoth Svc Peak Winter Days	4	480	$53,000	23000	$0	$53,000	47.92	0%	$2	$0.58
							SRTP Performance Standards			
BISHOP DIAL-A-RIDE							2.00	10%	$40	--
Earlier Sat Morning Bishop DAR Svc	0	128	7600	300	$700	$6,900	2.35	9%	$23	$11.50
Earlier Sun Morning Bishop DAR Svc	0	102	6000	200	$500	$5,500	1.96	8%	$28	$13.75
Later Bishop DAR Sun Svc	0	102	6000	150	$300	$5,700	1.47	5%	$38	$19.00

Figure 28: 395 Routes Alternatives Passenger-Trips per Vehicle-Hour

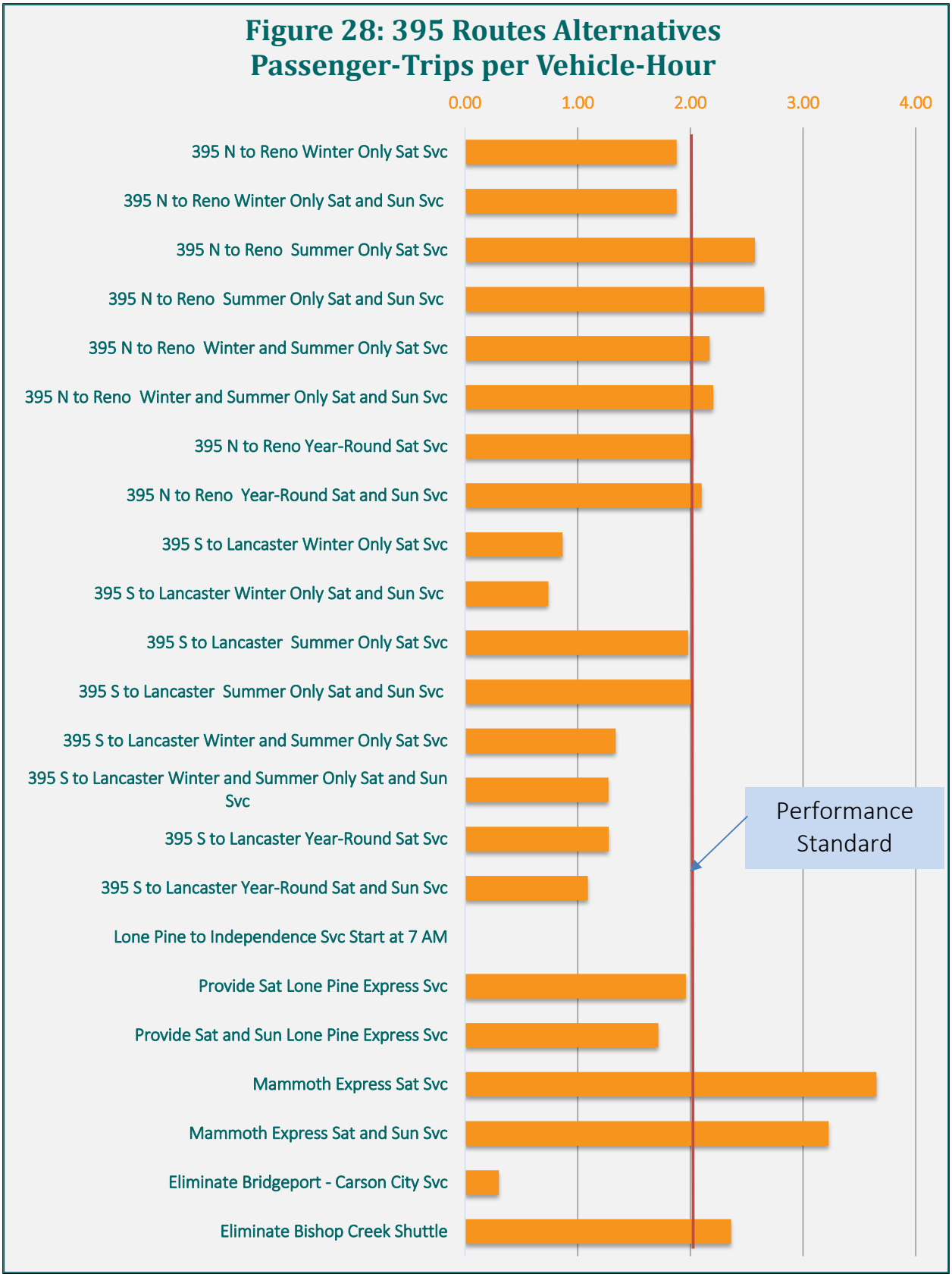
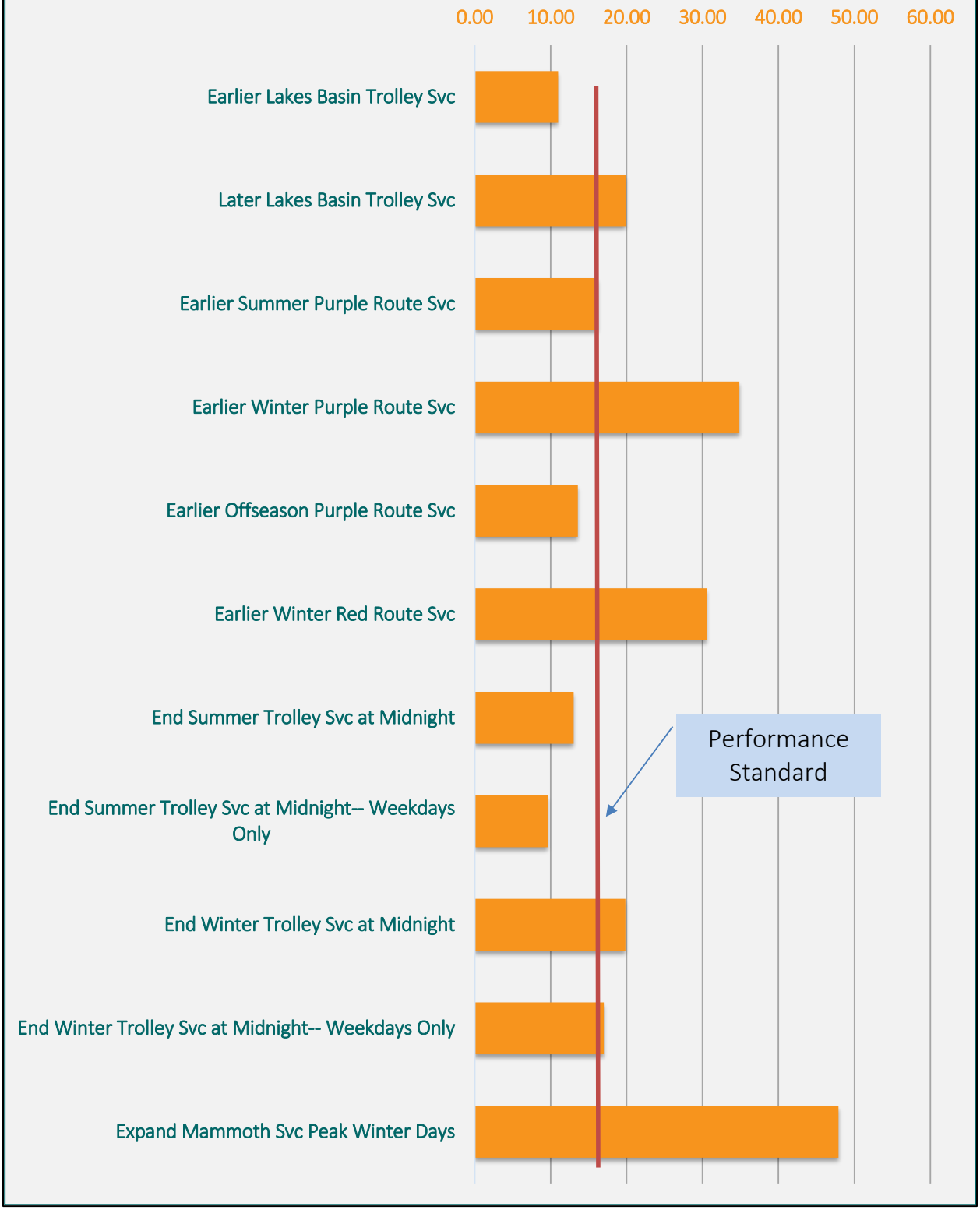


Figure 29: Mammoth Lakes Alternatives Passenger-Trips per Vehicle-Hour



Chapter 14
CAPITAL ALTERNATIVES

This chapter focuses on options for the various capital elements that are needed for a successful transit service, including bus stops, facilities, and vehicles.

Real-Time Traveler Information at Bus Stops in Mammoth Lakes

Transit systems serving visitor ridership—such as the ESTA services in Mammoth Lakes—have seen strong benefit in providing real-time information displays at bus stops. At a minimum, these displays provide the next arrival time for various routes, and can also provide information on service changes, the areas served by each route, etcetera. As many transit passengers in a visitor community are unfamiliar with the transit service (and often are unfamiliar with using a transit service in general), real-time information provides an immediate understanding and reassurance that service is on its way. These displays can be equipped with internet and solar power capabilities to minimize installation costs.

These displays should be deployed based on passenger boarding activity. A high priority list of stops would be the Village Canyon transit hub, Minaret West (#18), Canyon Lodge, Vons (#25), Eagle Lodge, Main Lodge, Main/Sierra (#14), Main/Post Office (#13), Snowcreek, Tamarack Lodge, and the Tavern Road Park and Ride. Costs vary based on the capabilities required as well as by vendor and is best determined through an RFP process. The system purchased by Thousand Oaks, California cost about $3,000 per unit (excluding installation). Software maintenance costs approximately $700 per unit per year. Including installation costs, a reasonable budget for the 11 locations identified above would be $40,000 of up-front costs plus $10,000 per year in software and maintenance costs.

Accommodating Additional Bikes on Transit Vehicles

Combining bicycling with transit trips is a popular travel pattern in Mammoth Lakes (particularly for downhill bike trips). The transit vehicles typically have a three-bike rack on the front. In addition, the Lakes Basin Trolley has a bike trailer (14-bike capacity). It is common for bike racks to be full. One option that several transit services choose is a second bike rack on the rear of the transit vehicle that can add capacity for two to four additional bikes. However, there is a potential safety concern if a passenger is loading or unloading a bike when the bus driver departs. Due to this concern, most transit systems choose not to provide rear bike racks.

Review of Appropriate Bus Size

Using a bus of appropriate size is important in providing efficient and convenient transit services. As discussed in Chapter 4, ESTA currently uses a wide range of vehicle types, ranging from a seating capacity of 14 to 37 passengers (excluding wheelchair users). While the operating cost of a larger bus is only slightly higher than operating a smaller vehicle (as driver costs do not vary by vehicle size), larger vehicles do tend to have higher capital costs and fuel costs (and can have greater impacts on residential

neighborhoods) while vehicles that are too small can provide a poor passenger experience or even result in passengers being left at the curb.

US 395 Routes

An analysis of existing (pre-pandemic) passenger loads on the US 395 Routes is presented in Table 38. This summarizes ridership by individual run and by direction for an entire year. The capacity of the current vehicles used (when expected to be needed to accommodate peak ridership periods) is shown at the top of the table. A variety of measures of passenger loads are then shown, including the peak observed ridership, the average ridership, as well as the percentile ridership at the upper end of the data range. For example, the 98th percentile passenger load reflects that ridership level that is only exceeded by 2 percent of the runs over the full year. For these runs, the total boarding can be assumed to equal the peak load, given the long distances and the fact that most of the boarding and alighting activity is near the ends of the runs (rather than passengers making short trips that do not add to the peak load). Also given the long distance of these runs, it is appropriate to plan bus capacity to avoid passengers standing (exceeding the seating capacity).

Table 38: Analysis of ESTA Bus Capacity -- 395 Routes

March 2019-February 2020

	Northbound				Southbound			
	Lancaster 395	Reno 395	Lone Pine Express	Mammoth Express	Lancaster 395	Reno 395	Lone Pine Express	Mammoth Express
Capacity of Buses Typically Used at Peak Times								
Seating Capacity	33	33	25	25	33	33	25	25
Total Capacity (150% of Seating)	50	50	38	38	50	50	38	38
Peak Loads Statistics								
Highest Peak Load	32	45	15	29	31	35	21	21
Average Peak Load	10	16	4	6	10	13	4	6
98th Percentile	20	40	11	15	21	26	14	15
95th Percentile	18	33	9	12	18	22	11	13
90th Percentile	17	29	8	11	17	21	9	11
% of All Runs by Peak Load								
20 or Less	92.1%	69.3%	100.0%	99.8%	92.5%	81.4%	99.8%	99.8%
30 or Less	99.6%	84.6%	100.0%	100.0%	98.8%	98.0%	100.0%	100.0%
40 or Less	100.0%	96.1%	100.0%	100.0%	100.0%	99.6%	100.0%	100.0%
50 or Less	100.0%	99.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
60 or Less	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: ESTA ridership records.

A review of this data indicates the following:

- The current vehicle size used on the Lancaster Route (33 passenger seating capacity, such as a Freightliner Defender), is adequate to accommodate existing ridership. However, it would not provide capacity for any significant ridership increase.

- The passenger loads on the Reno Route often exceed the seating capacity, with up to 45 passengers onboard at one time (12 standees). The data indicates that seating capacity is exceeded approximately 3 percent of the runs, over the course of the year (pre-pandemic). This data indicates that a full over-the-road coach (such as the MCI coaches operated by YARTS) would be appropriate on this route during peak seasons.

- The Lone Pine Express route had a peak ridership of 15 passengers, and a 90th percentile ridership of 8 passengers. The current vehicles used in this service (such as the Ford F-550) have 25 seat capacity, which is more than adequate to accommodate foreseeable ridership loads.

- The Mammoth Express route had a peak ridership of 29 passengers, slightly higher than the 25-seat capacity of the current vehicles used on this route. With a 90th percentile ridership of 11 and 98th percentile ridership of 15, this route generally can be served by the current vehicle size, though any ridership increase could warrant using a larger vehicle (such as the 33-passenger vehicles) at peak times.

Mammoth Lakes Routes

A similar analysis was conducted for the various Mammoth Lakes fixed routes. Given the available data and the fact that ridership and services vary by season, a detailed evaluation was conducted of passenger loads for a week in peak winter and a week in peak summer. Note that ridership is collected for each round-trip and is not available on a directional or per-stop basis. It was therefore necessary to estimate a peak-load-to-total-boarding factor, based on the directionality of the service (such as the high imbalance in ridership by direction to the ski lifts in the morning) as well as the potential for passengers to use the individual route without adding to the peak passenger load (such as Red Route passengers between Sherwin and Vons, that exit the bus before the peak passenger load point). For Mammoth Route runs, it is appropriate to consider standees, which typically are assumed to add 50 percent to the seating capacity.

Table 39 presents the passenger load analysis for the winter Mammoth routes, indicating the following:

- The Red Route often exceeds the 37 seating/56 total capacity of the existing buses. Total boardings on an individual run were reported to be up to 159 passengers, indicating a peak load of approximately 127. The data also indicates a 90th percentile estimated load of 62, exceeding the comfortable standing/seated capacity. Transit buses are available that are 45 feet in length, providing approximately 8 additional seats per vehicle. These may be a viable option if bus bays can accommodate the larger vehicles. This data also indicates the need for additional tripper buses at peak times, as discussed above.

- Passenger loads on the Blue Route are in line with the existing 37-seat capacity vehicles, with a peak load of 46 but a 99th percentile load of 33.

- With a peak load of 29 and a 95th percentile load of 25, the 37-seat capacity buses used on the Green Route could potentially be replaced with a bus with 25-30 seat capacity.

Table 39: Analysis of Winter Bus Capacity -- Mammoth Lakes Routes

	Route					
	Blue	Green	Purple	Red	Trolley	Yellow
Total Round Trip Boardings						
Peak	66	42	65	159	76	65
Average	11	9	15	47	18	7
99% Of All Runs	47	35	51	139	66	60
95% Of All Runs	33	22	35	91	51	25
90% Of All Runs	26	18	26	78	42	16
Peak to Total Factor	0.7	0.7	0.7	0.8	0.6	0.7
Peak Passenger Load						
Peak	46	29	46	127	46	46
Average	8	6	10	38	11	5
99% Of All Runs	33	25	36	112	39	42
95% Of All Runs	23	15	24	73	31	17
90% Of All Runs	18	13	18	62	25	11
EXISTING BUSES TYPICALLY USED ON ROUTE						
Seating Capacity	37	37	20	37	26	37
Total Capacity (150% of Seating)	56	56	30	56	39	56
Percent of All Runs by Peak Load						
20 or Less	92%	98%	92%	14%	84%	97%
30 or Less	98%	100%	97%	41%	93%	98%
40 or Less	99%	100%	99%	63%	99%	99%
50 or Less	100%	100%	100%	79%	100%	100%
60 or Less	100%	100%	100%	89%	100%	100%
More than 60	0%	0%	0%	11%	0%	0%

Note: Includes tripper runs as separate datapoints.

- The **Purple Route** had a peak load of 46 and a 95th percentile load of 24, which indicates that the existing 20-seat capacity Ford E-350 should be replaced with a larger vehicle (particularly as ridership grows). As this route serves residential streets, it would be important to ensure that the vehicle can operate on relatively narrow streets.

- The **Trolley** service has a peak load of 46 and a 95th percentile load of 31. This indicates that the current trolley (seating capacity of 37) is appropriate for the ridership level.

- The **Yellow Route** has a peak ridership of 46 but a 95th percentile load of 17, indicating that the existing 37-seat capacity (56 with standees) is appropriate.

A similar analysis of passenger loads for the summer Mammoth routes is shown in Table 40, indicating the following:

- Existing peak ridership on the **Purple Route** matches the current seating capacity of 20, indicating

that the current vehicle is adequate for current conditions. As The Parcel development extends beyond the initial phase, however, a larger vehicle will be needed.

- The **Lakes Basin Trolley** has passenger loads of up to 75 riders, with a 95th percentile load of 47. As the current trolley has a seating capacity of 26 and a total capacity of 39, this indicates the need for a larger vehicle.
- The **Night Trolley** also has passenger loads that exceed the capacity of the current vehicle, with up to 115 passengers recorded for a single run and a 95th percentile load of 46. This also indicates the need for a larger vehicle.

- Finally, the **Reds Meadow** service has remarkably high ridership exceeding the 37 seat / 56 total capacity of the existing vehicles. As operating a longer vehicle is probably not feasible given the roadway geometric constraints, this condition indicates instead the need for additional runs.

Table 40: Analysis of Summer Bus Capacity -- Mammoth Lakes Routes

	Route			
	Lakes Basin Trolley	Purple	Reds Meadow	Night Trolley
Total Round Trip Boardings				
Peak	94	29	131	191
Average	34	10	72	28
99% Of All Runs	81	24	128	116
95% Of All Runs	59	19	119	76
90% Of All Runs	54	17	109	59
Peak to Total Factor	0.8	0.7	0.8	0.6
Peak Passenger Load				
Peak	75	20	105	115
Average	27	7	58	17
99% Of All Runs	65	17	102	70
95% Of All Runs	47	14	95	46
90% Of All Runs	43	12	87	35
EXISTING BUSES TYPICALLY USED ON ROUTE AT PEAK TIMES				
Seating Capacity	26	20	37	26
Total Capacity (150% of Seating)	39	30	56	39
Percent of All Runs by Peak Load				
20 or Less	32%	99%	7%	72%
30 or Less	56%	100%	13%	86%
40 or Less	83%	100%	17%	92%
50 or Less	96%	100%	33%	96%
60 or Less	98%	100%	54%	98%
More than 60	2%	0%	46%	2%

Note: Includes tripper runs as separate datapoints.

Mammoth Transit Center/Mobility Hub

There is currently no central transit hub serving ESTA in Mammoth Lakes. While many of the local Mammoth Lakes passengers can complete their trip without the need to transfer, as the transit system grows there is an increasing need for a centralized transit hub that can serve the following needs:

- Transfers between local routes—As developments such as The Parcel come grow, a greater proportion of passenger trips will need to include transfers between buses. A transit hub can provide a high-quality and safe place for these transfers to efficiently occur.

- Transfers between local and regional/395 routes—A transit hub could provide an attractive place to wait between the frequent local routes and the less-frequent regional routes and could specifically support expansion of the 395 routes.

- Direct connections with YARTS service—At present there is not a convenient and attractive passenger facility for YARTS passengers, or for passengers to transfer from ESTA buses or other modes.

A facility could also serve other transit needs, such as providing space for driver breaks (particularly for the routes starting or ending in Mammoth Lakes). A transit facility can also serve as a permanent and very visible transit "presence" within the community, raising the overall awareness of public transit. This is particularly important to raise awareness for the many visitors to the region.

The program for a transit center would depend on funding and land availability. At a minimum, it should provide space for four buses at a time (such as a Purple Route bus, two Red Route buses and a YARTS or ESTA 395 Service bus) and enhances bus shelters to accommodate approximately 40 waiting passengers out of the snow/wind/rain. Optimally, it would also provide a climate-controlled waiting area, restrooms, a counter space for public information and at least two additional bus bays.

The Town of Mammoth Lakes recently conducted study culminating in the *Mobility Hub Study and Program* report (Fehr and Peers, 2/9/22). This study considered a range of sites, focusing down to two sites for "quick build" short term improvements: at the existing Park and Ride located on Old Mammoth Road just south of Tavern Road, and at the Community Recreation Center site on Old Mammoth Road at Mammoth Creek Road. The Park-and-Ride lot site would be an appropriate location for a transit hub (while the Community Recreation Center site is too far south to provide a convenient transit transfer location and does not allow for efficient bus circulation). At this site, additional seating/waiting area would be provided, along with restrooms, EV charging, bicycle parking and a public information kiosk. This site could serve as a transit/mobility hub, particularly if transit bus bays can be provided along the south side of Tavern Road east of Old Mammoth Road so that up to three buses can be accommodated at a time.

Van Donation Program

The vehicles that are retired from the ESTA fleet could potentially continue to serve mobility needs in the region if they are provided at minimal cost to local social service agencies. For example, the existing ESTA fleet includes four Sprinter vans that warrant replacement over the coming five years. As discussed in Chapter 13, ESTA could implement a program that provides retired vehicles to local social service organizations through an applicant/qualification process, in exchange for a commitment to provide a minimum level of service with the vehicle. To minimize ESTA's costs, the van recipient should be responsible for all vehicle maintenance, but free driver training should be provided.

Bishop Transit Facility Improvements

ESTA is in a long-term process to move into new and expanded facilities at the Eastern Sierra Regional Airport. To date, a new administration building has been completed along with parking improvements and a tent structure for light vehicle maintenance. As discussed in Chapter 5, ESTA would benefit from construction of a permanent one-bay building for light vehicle maintenance and inspection services. This facility would be approximately 1,500 square feet in floor area, and cost about $600,000.

Facility Security Improvements

The operations facilities in both Mammoth Lakes and Bishop lack any security systems. Camera surveillance systems for both facilities would help to increase security as well as workplace safety. Depending on capabilities and the availability of existing staff for installation, a budget of $8,000 is appropriate for these capital improvements.

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Chapter 15

MANAGEMENT AND FINANCIAL ALTERNATIVES

MANAGEMENT ALTERNATIVES

In-House Bishop Vehicle Inspections and Light Maintenance

Staffing a light maintenance facility at the Bishop operations facility (as discussed above and in Chapter 5 would add a single Maintenance Technician to the ESTA staff. This new position would conduct inspections and simple light repairs, such as preventive maintenance inspections, lube and oil filters, wiper blade replacement and light bulbs. Existing staff would be used to provide a second person on-site whenever a safety-sensitive procedure (such as a vehicle lift) is occurring. This approach would reduce current costs for outside vendor services by approximately $27,500 per year and also provide benefits in increasing vehicle availability, reducing staff time spent on shuttling vehicles and reducing ESTA's dependence on outside vendors. ESTA would still use private vendors for major vehicle repair services. While this strategy would result in a modest increase in overall costs to fund the new position, overall, it would be a benefit to the organization.

Improved Reservation System

As discussed in Chapter 4, an improved reservation system is warranted for the 395 Reno and 395 Lancaster services in order to allow passengers to book a trip in one step, thus avoiding the need for a call-back by ESTA staff. This will improve the customer experience, reduce staff time needs and improve reporting abilities. Based on the costs incurred by the YARTS program for their reservation program, an improved reservation system for the ESTA routes would cost about $10,000 to $15,000 per year. Note that provision of new, larger buses for these routes (as discussed above) would aid in this improvement by avoiding the current need to track seating capacity as it varies depending on the vehicle available on any one day.

Vehicle Maintenance Tracking Software

Given the large investment in the 54 vehicles in the ESTA transit fleet and the needs to monitor asset management for state and federal programs, tracking vehicle maintenance and inspection status is an important function. while this is currently adequately accomplished through use of spreadsheets, there are specialized software packages that can aid in this process. The additional of a Maintenance Technician at the Bishop Facility (as discussed above) would increase the usefulness of this approach. Annual costs for software vary by capabilities but are about $5,000 per year.

FINANCIAL ALTERNATIVES

ESTA currently benefits from a diversified set of revenues sources, including Federal funding (5310, 5311, 5311f, 5304, short term CARES Act and stimulus funds), State funding (LCTOP, SB1/State of Good Repair funds, State Transit Assistance funds, Local Transportation Funds), allocations from other agencies, private sources for contracted services as well as farebox revenues and advertising revenues. ESTA also recently received a Sustainable Communities Grant for the vehicle electrification study.

Infrastructure Investment and Jobs Act

The recent passage of the Infrastructure Investment and Jobs Act (IIJA) opens up new funding opportunities for transit services. In total, the IIJA provided $1.2 Trillion in funding for a wide range of purposes, including broadband access, clean water, electric grid renewal in addition to typical transportation and road purposes. While the IIJA does not result in a large shift in Federal modal priorities, it has opened new funding opportunities for multimodal transportation programs, including the following:

- An additional $8 billion in transit Capital Investment Grants, over previous programming levels. Overall, public transit formula funding over five years across California totals $9.45 Billion.
- A 70 percent increase in 5310 (Enhanced Mobility for Seniors and Persons with Disabilities) funding by 2026.
- A 42 percent increase in 5311 (Formula Grants for Rural Areas) funding by 2026.

Federal Lands Access Program

The Federal Lands Access Program (FLAP) program is administered by the Federal Highway Administration and is focused on improving access to federal recreational lands including NPS and USFS lands. It distributes $232 million annually across the country, of which $31 Million goes to California projects. As an example, it is currently funding a project to provide acceleration/deceleration lanes on US 395 at Buckeye Road in Mono County. This source could be tapped to fund a comprehensive recreational travel management program (parking controls, public information, transit service expansion) for Whitney Portal or other recreational lands trailhead access corridors.

Simplify the 395 Reno and 395 Lancaster Fare Structure

The current fare structure for the 395 corridor routes is quite complicated. In an effort to make the fare per mile consistent, the Reno route provides fares for 15 individual origins and destinations and 14 individual origins and destinations for the Lancaster Route. Overall, this results in 105 individual fare categories for the Reno Route, and 91 categories for the Lancaster Route for full fares, as well as an equivalent number of potential discount fares. This makes fare payment and tracking quite complicated. Fares could be simplified by grouping individual stops into the following nine zones (from south to north)

- Kern County and Pearsonville
- Southern Inyo County (Coso Junction, Olanche)
- Northern Inyo County (Lone Pine to Bishop)
- Southern Mono County (Toms Place to Mammoth Lakes)
- Central Mono County (June Lake to Bridgeport)
- Northern Mono County (Coleville, Walker)
- Douglas County
- Carson City
- Washoe County

Fares would be set to match the average fare within and between each zone. This would reduce the number of full fare options for the Reno Route to 21 and for the Lancaster Route to 15. If set correctly, this would have a minimal impact on overall fare revenue, while making the system easier to market, understand, use, and track.

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Chapter 16
ESTA SHORT RANGE TRANSIT PLAN

Based on the analysis and information presented in previous chapters, public input and stakeholder discussions, this chapter presents a five-year short-range transit plan for ESTA. It consists of a service plan, capital plan, management plan, and financial plan intended to improve public transit serving Inyo and Mono Counties within the constraints of realistic funding projections. The individual plan elements are presented in brief, based on the substantial analyses presented in the previous chapters; the reader is encouraged to refer to previous chapters for additional background on the plan elements. This plan is intended to provide the logical "next steps" in improving mobility within the region as well as regional connections, while helping to meet economic and environmental goals.

SERVICE PLAN

The following service strategies will improve the benefits and effectiveness of ESTA services.

395 Routes

395 North: Provide Year-Round 7-Day-a-Week Service

A key element of this SRTP is to expand the 395 North ESTA service between Bishop and Reno/Sparks to seven days a week, year-round. Both existing ridership data as well as the public input and travel pattern data collected as part of this study indicate a high potential for expanded ridership (and benefit to the region) through provision of a year-round consistent service by instituting Saturday and Sunday service. In addition to serving Inyo/Mono residents and seasonal employees needing to access urban services and air/rail connections, it will also provide visitors with an additional opportunity to travel to the region via air and rail service connections available in Reno.

395 South: Provide 7 Day-a-Week Service during Summer

Expanded service to seven-days-a-week (adding Saturday and Sunday service) is also recommended for the 395 South route to Lancaster but limited to the summer season only. Existing ridership on this route is highest in summer, and the potential for ridership in the other seasons is lower than for the 395 North route. This provides enhanced intercity service options for local residents, particularly those residents of southern Inyo County. An additional benefit of this service is to provide consistent daily access to gateway communities for Pacific Crest Trail and John Muir Trail hikers during the prime hiking season.

Provide Weekend Mammoth Express Service

As funding allows, Mammoth Express route service should be expanded to year-round seven-days-a-week service by adding weekend service. Weekend service will serve Mammoth Lakes employees that work weekends, Bishop residents accessing recreation in Mammoth Lakes and Mammoth Lakes / Crowley Lake residents shopping in Bishop. In winter, there would also be potential ridership generated by ski team

members living in Bishop or other youth skiers. As year-round expansion would require $66,400 in additional annual subsidy, there may be a need to add winter weekend service first, followed by summer weekend service and finally off-season weekend service. Note that adding summer 395 service helps to address this need but not perfectly, as schedules are defined for the longer trips.

Start the Lone Pine Express First Morning Southbound Run 10 Minutes Earlier

At present, the first southbound Lone Pine Express run departs the Bishop Airport at 6:50 AM and arrives in Independence at 7:55 AM, which makes it difficult for commuters to consistently start work at 8 AM (particularly for employers such as the Department of Water and Power that are a few blocks' walk from the bus stop). This first departure should be shifted 10 minutes earlier to better serve commuters. Employers in Independence should be contacted to distribute information to their commuters on the change in service time.

Eliminate Bridgeport to Carson City Service and Replace with Better Use of 395 Reno Service

The existing Bridgeport - Carson City service (Wednesdays only on demand) has proven to not be effective, serving only 91 passenger-trips in 2020/21 while costing $32,200 in subsidy (or $353 per passenger trip). These funds could be put to better use by stopping this separate service and instead subsidizing the fares on the US 395 Reno service for residents of Bridgeport, Walker and Coleville traveling to/from the Gardnerville/Carson City/Reno area. The 395 North service provides pickup times in Bridgeport at 9:36 AM and in Walker/Coleville around 10:15, with arrivals in Gardnerville at 10:50 AM and Carson City at 11:17 AM. In the afternoon, passengers can board in Carson City at 2:15 PM and Gardnerville at 2:45 PM for arrival in Mono County at 3:35 to 4:05 PM. This provides a convenient 3 hour stay in Carson City and 4 hour stay in Gardnerville. As virtually all of the medical and shopping facilities in Minden/Gardnerville are close to the US 395, establishing a policy of allowing some deviation for passenger requests to specific locations could fill much of the need for northern Mono County residents while providing much more useful access options.

A "deep discount" program for residents that apply for the discount could provide, for example, a 90 percent reduction in fare, yielding a fare of $1.30 per one-way ride. Residents will need to apply for the reduced fare program. Depending on the funding source, it may be appropriate to apply eligibility criteria. Actual ridership would therefore depend on these criteria and marketing efforts. This approach could potentially serve more trips, at a lower cost. In addition, the driver could be available for other services.

Reduce the Walker Dial-A-Ride to Two Days a Week and Offer Service to Mammoth Lakes With Reservations

Ridership on the Walker Dial-A-Ride, while never high, has fallen greatly over the last few years. While service is offered 4 days a week, ridership averages less than one passenger-trip per day. Service will be reduced to Mondays and Tuesdays only. On Tuesdays, service will be offered (with a reservation) for trips to/from Mammoth Lakes, also serving the US 395 corridor communities (including June Lake) along the way. This is expected to generate a modest increase in ridership and fare revenue, while also providing an operating cost savings. It also will free up the driver on additional days per week for other ESTA services.

Eliminate Bishop Creek Shuttle If Productivity Does Not Improve

The summer-only Bishop Creek Shuttle requires substantial subsidy funding but has generated only limited ridership of 8 passenger-trips per day over the last three years, even in the busiest portion of the summer. As a result, this service requires over $30 in public subsidy for every passenger-trip served. There is also substantial wear and tear on the vehicle due to the steep climb of almost 5,000 feet of elevation. For the summer of 2022, the service will be continued with a revision to fares to charge one-way riders a higher fare. If substantial revenues are not generated or ridership increases significantly, in future years this service should be eliminated, which will provide additional funding for other services. In general, ESTA's more important role in improving access to long-distance trails should instead be to improve US 395 access from Reno and Southern California, rather than the less effective connections directly to the trailheads.

Mammoth Lakes Service

Later Lakes Basin Trolley Service

The summer Lakes Basin Trolley Service will be extended beyond the current end of service at 6:00 PM to 8:00 PM using one vehicle to provide new westbound departures at 6:00 PM and 7:00 PM. This will better serve visitor trips to the Basin over long summer evenings, and also allow campground guests more opportunity to access Mammoth Lakes for shopping and dining.

Earlier Purple Route Service in the Summer and Winter

The Purple Route schedule will start at 6:30 AM (rather than the current 7:00 AM) in both winter and summer. This route is particularly useful for residents accessing work, and ridership patterns in other mountain resort community transit services typically start service around 6:30 AM, allowing passengers to travel for work shifts starting prior to 8:00 AM. The need for early service is also indicated by the high ridership (an average of 14 passengers prior to the pandemic) in the 7:00 AM hour during the summer as well as the high (31 passengers on average during a sample period in February 2019) ridership in the winter.

Evening Purple Route Service in Winter

Evening service in Mammoth Lakes is limited to the Trolley service, which travels largely along major streets. Particularly with the construction of the Parcel residences, there are many residential areas that are not convenient to Trolley stops but which could be served by added hours of Purple Route service. A reasonable option would be to expand service after the current end of service at 6:00 PM until 9:00 PM. This is indicated by the strong existing ridership in the existing last hour of service (15 passengers in Winter, and 10 in Summer). A performance analysis of evening Purple Route service by season indicates that the service would meet performance measures in Winter but not in the other seasons. It is therefore recommended that service on the Purple Route be extended to 9 PM in the winter.

Earlier Winter Red Route Service

The Red Route winter schedule will start at 6 AM rather than 7 AM. This will help employees get to early shift start times, particularly for those persons commuting in the southbound direction where first service at some stops is currently as late as 7:44 AM. The strong ridership in the first hour of service indicates a high ridership potential for this early hour of service, as well as the ridership seen in early morning service in other mountain resort transit systems.

Revision to Mammoth Lakes Service to Serve The Parcel

The Purple Route will be revised to serve the multifamily affordable housing in The Parcel, once the first phase of the development (and associated roadway improvements) is completed. The existing route will be revised to travel west on Tavern Road (into The Parcel), south on Chaparral Road, and east on Sierra Nevada Road, as shown in Figure 30. To provide adequate running time, the existing alternating service to Cerro Coso College/Elementary School and the RV Park/Welcome Center will be dropped, and instead on-demand service will be provided to the following four locations:

- Cerro Coso College
- Meridian Elementary School
- Mammoth Mountain RV Park
- Mammoth Lakes Welcome Center

Passengers wishing a pickup will call or use an app to request a ride (at least 10 minutes prior to the beginning of each half-hourly run) and passengers boarding at other locations wishing a drop-off at an on-demand stop would simply make a request to the driver. The potential that more than a few requests are made in any half-hour period would be low (particularly as the schools tend to generate in periods opposite that of the RV park and Visitors Center). This would provide the opportunity for service every half-hour.

Dial-a-Ride Services

Bishop Microtransit Service

The existing Bishop Dial-a-Ride service will be enhanced by converting the request and dispatching system to a "microtransit" service. This will use the existing drivers and vehicles along with modern app-based software, as follows:

- ESTA will obtain a license to an online application service and make this app available for free download.

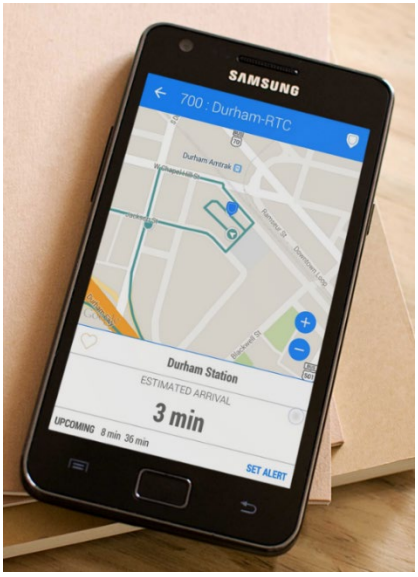
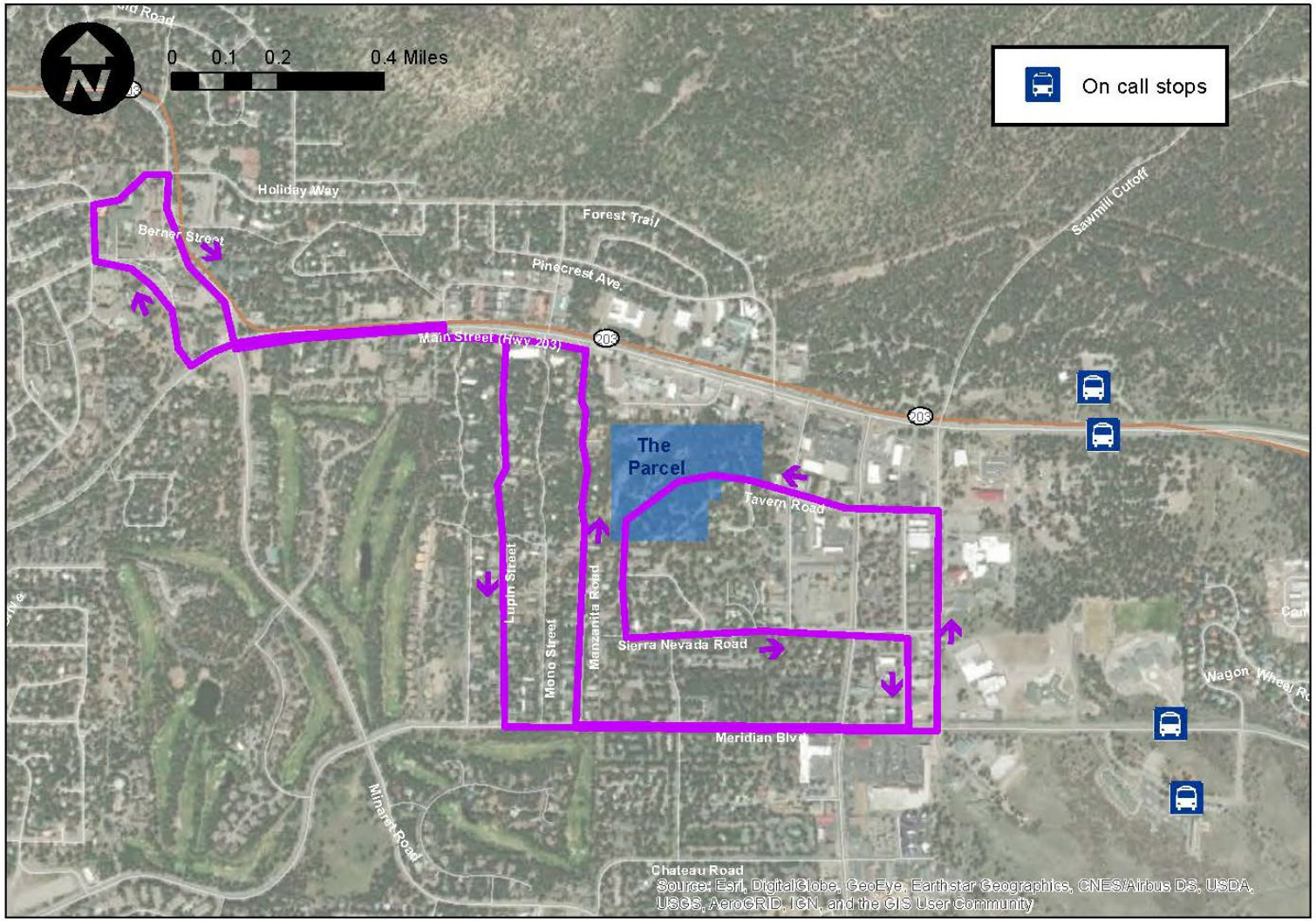


Figure 30:
Purple Route Revisions to Serve The Parcel



- Passengers can use the app on a phone or computer to make a ride request or continue to make phone requests. (Other areas have found that a majority of riders shift to using the app.) Dispatchers will enter the phone ride requests into the app. Standing subscription trips (such as individuals regularly going to a senior meals program, as one example) could be made, avoiding the need for ongoing individual bookings

- The application software will dispatch drivers, following algorithms that minimize service costs and enhance response times. This will free up dispatchers to address service issues and work on other tasks. It is not expected that any dispatch positions would be eliminated or reduced.

- The application software will automatically track ridership patterns, response times and missed trips.

There is a quickly growing list of public transit systems that are implementing microtransit services, including Washoe RTC in Reno/Sparks (Nevada), the Cheyenne Transit Program (Wyoming), the Citibus system in Lubbock (Texas) and Placer County (California). Microtransit has the potential to provide a higher quality demand response service (faster response times), increase the capacity of the system within the existing vehicle-hours of service and to improve the working conditions of ESTA staff. The increased convenience of the ride request service could also lead to long-term increases in ridership, and the additional automated data collection could also allow better allocation of resources over time. In addition, the new software program will provide improved reporting capabilities and will allow enhanced management of the service.

Earlier Saturday Morning Bishop Service

The Bishop service will start at 7:00 AM on Saturdays, rather than the current start time of 8:30 AM. Providing earlier service will allow Bishop residents to get to early morning weekend shifts and make the Saturday start time consistent with the weekday start times.

Summary: Short Range Transit Service Enhancements

As shown in Table 41, in sum these service enhancements are forecast to increase annual ESTA ridership by 40,700 passenger-trips, by the end of the Plan period. This is equivalent to a 5 percent increase over "base case" forecasts and will – along with expected growth in ridership on existing services – result in an estimated 801,200 passenger-trips by FY 2026-27. Beyond simply increasing ridership, these service enhancements will substantially expand regional access (which particularly enhances visitation), increase the hours of service, enhance access to recreation and education, and overall expand economic activity.

Additional Service Enhancements for Consideration

Beyond the service improvements planned for the coming five years, there are several additional improvements to Eastern Sierra Transit Authority services that are recommended for consideration over the longer term

- If ridership demand expands on the 395 South route, weekend service in additional seasons may be feasible, but probably not within the five-year period of this SRTP.

- Earlier Purple Route service in the off-seasons, to provide a consistent 6:30 AM start time throughout the year.

- Additional Red Route service, if additional funding (and staffing) becomes available.

If conditions change over the course of the five-year SRTP Planning period (such as shifts in ridership demand), one or more of these longer-range service strategies could be considered for earlier implementation.

CAPITAL IMPROVEMENTS

Transit services require ongoing capital investment in facilities and rolling stock. Capital investments in both vehicles and passenger facilities can also attract additional riders, while improving the quality of service and safety/security of existing riders. In addition, new advancements in communications technologies can significantly benefit public transit programs. Information on the Capital Plan elements is presented in Table 42.

Transit Fleet Improvements

At present, ESTA operates a peak of 37 vehicles: 17 cutaways/vans, 12 heavy duty buses and 8 trolleys. Including the necessary spare vehicles, a total of 48 vehicles are needed to operate all services: 26 cutaways/vans, 13 heavy duty buses and 9 trolleys. The service plan will reduce the number of cutaway vehicles needed by one (reflecting the Bishop Creek service elimination).

As part of this plan, the following changes in the ESTA transit fleet are recommended:

- Over-the-road coaches (such as an MCI coach) should be pursued for US 395 Reno service. A minimum of two should be obtained to ensure the backup needed to consistently operate the larger bus on the Reno service. (This second coach could also be used on the US 395 Lancaster route when not needed as a spare for the US 395 Reno route.) This will require additional grant funding for the bus purchases as well as the additional operating costs.

- New trolley purchases should be larger vehicles, providing 35 to 40 seats rather than the current 26-seat trolleys. Larger capacity is warranted for both the Lakes Basin Trolley and the Night Trolley services.

- A larger vehicle (25 seat capacity) should be used for the Purple Route service, rather than the existing 20-seat capacity cutaway.

The vehicle purchase schedule (reflecting the end of useful life of the existing fleet and these modifications) is shown in the top portion of Table 42.

Table 41: ESTA SRTP Estimated Ridership

Plan Element	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27
Base Case Ridership	**675,700**	**696,000**	**716,800**	**738,300**	**760,500**
395 Reno Year-Round Saturday and Sunday Service	0	2,600	3,000	3,000	3,100
395 Lancaster Summer Only Saturday and Sunday Service	0	800	900	900	900
Mammoth Express Saturday and Sunday Service	0	2,200	2,500	2,600	2,700
Eliminate Bridgeport - Carson City Service	300	300	300	300	300
Reduce Walker DAR to 2 Days/Wk, Service to Mammoth	200	200	200	200	200
Eliminate Bishop Creek Shuttle	0	-700	-700	-700	-800
Later Lakes Basin Trolley Service	0	2,800	3,200	3,300	3,400
Earlier Summer & Winter Purple Route Service	1,100	2,800	3,200	3,300	3,400
Winter Purple Route Evening Service	8,300	9,400	9,700	10,000	10,300
Earlier Winter Red Route Service	7,400	8,500	8,700	9,000	9,300
Bishop Microtransit Service	0	900	1,800	3,700	7,600
Earlier Saturday Morning Bishop DAR Service	0	300	300	300	300
Plan Element Subtotal	*17,300*	*30,100*	*33,100*	*35,900*	*40,700*
Total Ridership	693,000	726,100	749,900	774,200	801,200

Table 42: ESTA SRTP Capital Plan

Plan Element			FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	5-Year Plan Total
Vehicle Purchase Schedule		Vans	4	0	0	0	0	4
		Small Cutaways	5	0	1	0	0	6
		Large Cutaways	3	0	0	0	1	4
		Bus	1	0	9	1	0	11
		Over-The-Road Coach	0	0	2	0	0	2
		Trolley	3	1	1	1	0	6
		Total	16	1	13	2	1	33
Vehicle Costs[2]	2022 Unit Cost							
	$135,000	Vans	$540,000	$0	$0	$0	$0	$540,000
	$135,000	Small Cutaways	$675,000	$0	$143,200	$0	$0	$818,200
	$200,000	Large Cutaways	$600,000	$0	$0	$0	$225,100	$825,100
	$450,000	Bus	$450,000	$0	$4,296,600	$491,700	$0	$5,238,300
	$750,000	Over-The-Road Coach	$0	$0	$1,591,400	$0	$0	$1,591,400
	$363,000	Trolley	$1,089,000	$373,900	$385,100	$396,700	$0	$2,244,700
		Total	$3,354,000	$373,900	$6,416,300	$888,400	$225,100	$11,257,700
Real-Time Traveler Information			$40,000	$0	$0	$0	$0	$40,000
Mammoth Transit Center			*Funded as Part of Mammoth Lakes Mobility Hub*					
Bishop Operations Facility			$600,000	$0	$0	$0	$0	$600,000
Facility Security Improvements			$8,000	0	0	0	0	$8,000
Total			$4,002,000	$373,900	$6,416,300	$888,400	$225,100	$11,905,700

Note 1: Reflects first year that vehicles are eligible for replacement (including vehicles eligible prior to the first year not yet replaced). Actual year of replacement will depend on funding availability.
Note 2: Does not include consideration of electric vehicles, which are being evaluated in a separate study.

As indicated, a total of 33 vehicles warrant replacement/purchase over the five-year plan period, with larger needs in FY 2022-23 (16 vehicles) and FY 2024-25 (13 vehicles). Note that this includes vehicles that reached their end of useful life prior to this SRTP plan period but have not yet been replaced, and that the actual year of purchase for individual vehicles may be delayed depending on availability of grant funding. In total, approximately $11.6 million will be needed over the five years for vehicle purchases. Note that a 3 percent annual inflation rate is included in these costs.

It is also important to note that these vehicle plans and costs do not reflect the results of the upcoming Fleet Electrification Feasibility Plan. This study, to be completed over the next two years, will define the best strategy for electrification of the ESTA fleet, as well as for charging facilities and any changes in service strategies needed to accommodate charging requirements. As equivalent battery electric vehicles currently cost on the order of 75 percent more than fossil fueled vehicles, the vehicle cost impacts of electrification would be substantial (though this cost differential may well drop as the size of the electric bus market expands).

Real Time Traveler Information

ESTA should work with the Town of Mammoth Lakes to install video displays presenting real-time traveler information in 10 to 12 key stops along the Mammoth Lakes fixed routes. $40,000 is allocated for the initial equipment purchase and installation, along with $10,000 per year for software subscription and maintenance costs.

Transit Center and Bus Stop Improvements

ESTA should also work with the Town of Mammoth Lakes in improving the existing Park and Ride lot at Old Mammoth Road / Tavern Road to allow better transfers between ESTA buses, as well as between ESTA and YARTS buses. Space for a minimum of three buses should be provided, as well as passenger amenities. Costs will depend upon final site plans and funding opportunities.

Bishop Transit Operations Improvements

ESTA should construct a permanent one-bay maintenance facility in Bishop to allow on-site vehicle inspections and light maintenance. $600,000 is allocated for this facility.

Facility Security Improvements

$8,000 is allocated to provide camera systems at both the Mammoth Lakes and Bishop facilities to improve security.

Summary of Capital Improvements

Table 42 provides a summary of the Capital Plan elements. As shown, over the coming five years a total of $11,905,700 will be required to enhance the fleet and facilities. This includes the impact of a 3 percent annual rate of inflation. Capital funding needs are particularly high in the first year of the plan ($4.0 Million) and FY 2024-25 ($6.4 Million).

MANAGEMENT PLAN

Adopt Updated Performance Measures

ESTA benefits from a well-defined system of goals and performance measures. Based on the review presented in Chapter 8, above, the following changes are recommended to the performance measurement program:

- Modify the standards from subsidy per passenger trip to subsidy per passenger mile for regional inter-city and 395 route services.
- Implement a Mammoth Fixed Route subsidy per passenger trip standard of $4.00.
- Conduct community and passenger surveying every five years rather than every two years.
- Service productivity for DAR and lifeline services should be modified to 2.0 as the minimum standard.
- Modify the on-time performance standard to allow a 10 minute on-time performance window for Express and Intercity services.

These revisions are more in line with current operating conditions, while still providing appropriate incentives to improve services.

Provide In-House Bishop Vehicle Inspections and Light Maintenance

ESTA should establish a new position in Bishop to perform inspections and simple light repairs, such as preventive maintenance inspections, lube and oil filters, wiper blade replacement and light bulbs. This will benefit the organization by increasing vehicle availability, reducing staff time spent on shuttling vehicles and reducing ESTA's dependence on outside vendors. Considering both the salary/benefits of this new position and the reduction in outside services costs, this strategy will increase overall operating costs by approximately $45,000 per year.

Improve the Reservation System

An improved reservation system should be implemented for the 395 Reno and 395 Lancaster services in order to allow passengers to book a trip in one step. This, along with the expansion to 7-days-a-week service and the larger buses, will be part of an overall significant enhancement in the long-distance 395 services. $15,000 in annual software costs are included in the plan.

Vehicle Maintenance Tracking Software

ESTA should invest in a specialized vehicle maintenance tracking software, to be used by the new Maintenance Technician. Annual costs for software vary by capabilities but are about $5,000 per year.

FINANCIAL PLAN

No changes in current fares are recommended, beyond the simplification of the US 395 route fare structure as discussed in Chapter 15, above. This is expected to have a negligible impact on fare revenues.

The service and capital improvements discussed above are planned to be funded through a combination of fare revenues, state/federal grants, and local public and private funding. The following methodology was utilized in developing this Financial Plan:

- First, forecasts of annual operating and administrative costs were developed, as presented in Table 43 for FY 2022/23 through FY 2026/27. "Base case" operating and administrative cost forecasts were estimated based on the existing budget. Note that the cost savings associated with the end of Bishop Creek Shuttle service is included in this figure, as this is an operating plan element. A 3.0 percent average annual inflation rate is applied to estimate base case costs in the absence of any change in service levels. Next, operating and administrative cost estimates were identified for each SRTP element, based upon the analyses presented in previous sections of this document, and consistent with the Implementation Plan presented below. These costs were also factored to reflect the assumed rate of inflation. Operating and administrative costs by the fifth year of the Plan will total approximately $6,891,400, which is 5 percent over the FY 2026-27 base-case cost.

- Next, ridership for each SRTP element was estimated, as presented in Table 41. The "base case" ridership reflects expected ridership, with no changes in service. The ridership impact of each Plan element is then identified and summed. As new services do not immediately attain the full potential ridership, ridership on new services is factored to reflect 90 percent of potential ridership in the following year. By FY 2026/27, ridership is forecast to equal 801,200 one-way passenger-trips per year, which is 40,700 trips over the base case 2016/17 forecast. This indicates that the Plan will result in a 5 percent increase in ridership by the end of the Plan period. Note that these figures do not reflect any ridership increase associated with the easing of pandemic ridership losses.

- Based on the ridership figures presented in Table 41, the estimated farebox revenues are presented in Table 44. As presented, by the final year of the Plan period, the service expansion elements will increase fare revenue throughout the five-year Plan period by $117,600 per year. Including fare revenue generated by growth in ridership on existing services, annual fares are forecast to grow by $295,400 over current levels, equal to a 21 percent increase.

- The next element is estimation of the capital cost for vehicles, passenger amenities, operations and administration facilities, and the transit center, as shown in Table 42 for each year of the Short-Range Transit Plan period. It should be noted that an annual inflation rate of 3.0 percent is reflected in several of these figures, where appropriate. Based on the Capital Plan, presented above, the capital costs total $11,905,700 over the five-year period.

Table 43: ESTA Short-Range Transit Estimated Operating Cost

Plan Element	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27
Base Case Operating Cost	**$6,113,500**	**$6,023,100**	**$6,203,800**	**$6,389,900**	**$6,581,600**
395 Reno Year-Round Saturday and Sunday Service	$0	$124,900	$128,700	$132,500	$136,500
395 Lancaster Summer Only Saturday and Sunday Service	$0	$39,200	$40,400	$41,600	$42,900
Mammoth Express Saturday and Sunday Service	$0	$81,300	$83,700	$86,200	$88,800
Eliminate Bridgeport - Carson City Service	-$32,900	-$33,900	-$34,900	-$36,000	-$37,000
Reduce Walker DAR to 2 Days/Wk, Service to Mammoth	-$75,800	-$78,100	-$80,400	-$82,800	-$85,300
Eliminate Bishop Creek Shuttle	$0	-$22,900	-$23,600	-$24,300	-$25,000
Later Lakes Basin Trolley Service	$0	$9,600	$9,900	$10,200	$10,500
Earlier Summer & Winter Purple Route Service	$4,000	$6,400	$6,600	$6,800	$7,000
Winter Purple Route Evening Service	$23,800	$24,500	$25,200	$26,000	$26,800
Earlier Winter Red Route Service	$15,800	$16,300	$16,800	$17,300	$17,800
Bishop Microtransit Service	$0	$30,900	$31,800	$32,800	$33,800
Earlier Saturday Morning Bishop DAR Service	$0	$7,800	$8,100	$8,300	$8,600
Real-Time Traveler Information Subscription	$10,000	$10,300	$10,600	$10,900	$11,300
New Bishop Inspection/Maint. Position[1]	$45,000	$46,400	$47,700	$49,200	$50,600
Improved Reservation System	$15,000	$15,500	$15,900	$16,400	$16,900
Vehicle Maintenance Tracking Software	$5,000	$5,200	$5,300	$5,500	$5,600
Plan Element Subtotal	**$9,900**	**$283,400**	**$291,800**	**$300,600**	**$309,800**
Total Operating Cost	$6,123,400	$6,306,500	$6,495,600	$6,690,500	$6,891,400

Note 1: Net cost increase considering reduction in existing outside services costs.

Table 44: ESTA SRTP Estimated Farebox Revenues

Plan Element	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27
Base Case	**$1,415,900**	**$1,458,400**	**$1,502,200**	**$1,547,200**	**$1,593,700**
395 Reno Year-Round Saturday and Sunday Service	$0	$57,400	$65,700	$67,600	$69,700
395 Lancaster Summer Only Saturday and Sunday Service	$0	$13,200	$15,100	$15,500	$16,000
Mammoth Express Saturday and Sunday Service	$0	$11,900	$13,700	$14,100	$14,500
Eliminate Bridgeport - Carson City Service	-$200	-$200	-$200	-$200	-$200
Reduce Walker DAR to 2 Days/Wk, Service to Mammoth	$800	$800	$800	$800	$800
Eliminate Bishop Creek Shuttle	$0	-$2,900	-$3,000	-$3,000	-$3,100
Later Lakes Basin Trolley Service	$0	$0	$0	$0	$0
Earlier Summer & Winter Purple Route Service	$0	$0	$0	$0	$0
Winter Purple Route Evening Service	$0	$0	$0	$0	$0
Earlier Winter Red Route Service	$0	$0	$0	$0	$0
Bishop Microtransit Service	$0	$2,300	$4,500	$9,300	$19,100
Earlier Saturday Morning Bishop DAR Service	$0	$700	$800	$800	$800
Plan Element Subtotal	**$600**	**$83,200**	**$97,400**	**$104,900**	**$117,600**
Total Farebox Revenue	$1,416,500	$1,541,600	$1,599,600	$1,652,100	$1,711,300

The results of Tables 41 through 44 were used to develop the Financial Plan, as presented for each of the five years of the Short-Range Transit Plan period in Table 45. In addition to passenger fare revenues, this Financial Plan incorporates the following funding sources.

Operating Funding Sources

Operating funding sources are proposed to consist of the following

- Annual LTF (Local Transportation Fund) revenues are based on the estimated FY 22-23 budgeted amount and adjusted for a 3 percent economic inflation factor per year.

- Annual STA (State Transit Assistance) funding, assuming no change from the budgeted FY 22-23 amount allotted. Funding levels for this specific source is expected to decline and will need to be augmented by transit shares of new statewide transportation funding programs.

- FTA (Federal Transit Administration) Grants include:

    - Section 5311 (Rural Program)and 5311(f) funds are used for operations. These funds are assumed to grow at an annual rate of 10 percent, reflecting the additional funding provided for the nationwide 5311 program under the Infrastructure Investment and Jobs Act.

- The Low Carbon Transit Operations Program (LCTOP), adjusted annually for 3.0 percent inflation.

- California State of Good Repair funds, adjusted annually for inflation.

- Interest on bank balances is included, based on the FY 22-23 amount and grown with 3.0 percent inflation

- Funding is also identified from the Town of Mammoth Lakes, the Mammoth Mountain Ski Area and Kern Regional Transit (for US 395 South service). These funds are grown by 3.0 percent annually for inflation.

As shown in Table 45, this results in a net negative balance in the first year of $104,300. This deficit declines and yields a net positive balance by the fourth year of the plan. The negative operations balance for the first year can potentially be is mitigated through the use of the Capital Reserve Fund. Beyond this first year, additional grant funding will be needed to support expansion, in particular the expansion of US 395 services.

The Capital fund requirements are estimated to total $11,905,700 over the five-year SRTP period. At the typical local match requirement of 20 percent, this will require $2,381,140 in local funds.

Table 45: ESTA SRTP Financial Plan

	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	5-Year Plan Total
OPERATING PLAN						
Base Case Costs	*$6,113,500*	*$6,023,100*	*$6,203,800*	*$6,389,900*	*$6,581,600*	*$31,311,900*
Operating Plan Elements	$9,900	$283,400	$291,800	$300,600	$309,800	$1,195,500
Total Operating Costs	$6,123,400	$6,306,500	$6,495,600	$6,690,500	$6,891,400	$32,507,400
Operating Revenues						
Passenger Fares	$1,416,500	$1,541,600	$1,599,600	$1,652,100	$1,711,300	$7,921,100
Annual LTF	$1,331,000	$1,370,900	$1,454,400	$1,589,300	$1,788,800	$7,534,400
Annual STA	$478,100	$478,100	$478,100	$478,100	$478,100	$2,390,500
FTA 5311 and 5311(f)	$490,000	$539,000	$592,900	$652,200	$717,400	$2,991,500
LCTOP	$125,200	$129,000	$125,200	$129,000	$132,800	$641,200
State of Good Repair	$78,800	$81,200	$78,800	$81,200	$83,600	$403,600
Interest	$25,000	$25,800	$25,000	$25,800	$26,500	$128,100
Town of Mammoth Lakes Contract	$988,000	$1,017,600	$988,000	$1,017,600	$1,048,200	$5,059,400
Mammoth Mtn Ski Area	$1,119,700	$1,153,300	$1,119,700	$1,153,300	$1,187,900	$5,733,900
Kern Regional Transit	$24,000	$24,700	$24,000	$24,700	$25,500	$122,900
TOTAL OPERATING REVENUES	**$6,076,300**	**$6,361,200**	**$6,485,700**	**$6,803,300**	**$7,200,100**	**$32,926,600**
Annual Balance	($47,100)	$54,700	($9,900)	$112,800	$308,700	$419,200
Capital Plan						
Capital Plan Element Costs	$4,002,000	$373,900	$6,416,300	$888,400	$225,100	$11,905,700
Local Match Requirements (20 percent)	$800,400	$74,780	$1,283,260	$177,680	$45,020	$2,381,140
Total Grant Funding Required	$3,201,600	$299,120	$5,133,040	$710,720	$180,080	$9,524,560
Potential Capital Funding Programs						
FTA 5339 Capital						
FTA 5311 and 5311(f)						
FTA 5310						
State Transit Assistance Capital						
State Transportation Improvement Program						

Capital Funding Sources

Capital funding sources are planned to consist of the following, as presented in the bottom portion of Table 45:

- State grants, including STIP (State Transportation Improvement Program) and STA funding
- FTA 5310, 5311, 5311(f) and 5339 grants
- FTA Grants to be used for engineering, permitting and construction of the Mammoth Lakes Transit Center and towards the Bishop Facilities over the Plan period.
- Transportation Development Credits allowing effective 100 percent Federal funding.
- The recent passage of the Infrastructure Investment and Jobs Act (IIJA) greatly expands Federal funding opportunities for transit services, including an additional $8 billion in transit Capital Investment Grants, a 70 percent increase in 5310 (Enhanced Mobility for Seniors and Persons with Disabilities) funding and a 42 percent increase in 5311 (Formula Grants for Rural Areas) funding by 2026.

As many of these newer funding programs are currently not well defined and are dependent on the granting processes, no year-by-year forecasts can be reliably made. With diligent pursuit of grant opportunities, it is expected that with the recent increases in funding levels sufficient capital funds will be available to support this plan.

IMPLEMENTATION PLAN

Fiscal Year 2022-23

- Eliminate the Bridgeport-Carson City service and replace with a fare subsidy program.
- Reduce Walker DAR service to two days a week, with reservation service one day a week to Mammoth Lakes
- Shift the first Lone Pine Express southbound departure 10 minutes earlier.
- Start Purple Route and Red Route services earlier as well as Purple Route winter evening service, beginning in the 2022-23 winter season.
- Start the grant application process for expanding US 395 North and South Route days of service.
- Procure software and finalize planning and marking for the Bishop Microtransit service.
- Implement real-time travel information at key Mammoth Lakes stops.
- Construct permanent inspection/maintenance building in Bishop.
- Implement improved reservation system.
- Purchase vehicle maintenance tracking software.

Fiscal Year 2023-24

- Implement 7-day-a-week service on US 395 routes.

- Eliminate the Bishop Creek Shuttle if productivity does not improve..
- Implement Mammoth Express Saturday and Sunday service.
- Implement Bishop Microtransit service.
- Implement later Lakes Basin Trolley service.
- Implement earlier Bishop Saturday service.

Fiscal Year 2024-25

- Continue service improvements.

Fiscal Year 2025-26

- Continue service improvements.

Fiscal Year 2026-27

- Continue service improvements.
- Prepare updated SRTP.

SUMMARY

In summary, key strategies that this plan will accomplish are:

- A significant improvement in US 395 service, including 7-day-a-week service (year-round to Reno, summer only to Lancaster, larger and more comfortable over-the-road coaches, and an improved reservation system).

- Expansion of Mammoth Express services to seven days a week, year-round.

- Expansion of hours of service on Mammoth Lakes services where warranted.

- Conversion of the Bishop Dial-a-Ride service to a microtransit service, enhancing the ability to accommodate trip requests in real time, making the system easier for passengers to use and increasing efficiency.

- Improving the transit fleet, including larger Trolley vehicles.

The overall cost impacts of these improvements are relatively modest, at a 6 percent increase in funding levels. While achieving this plan will require continuing development of grant sources (as well as local partnerships), the expansion in funding programs indicates that these operating and capital improvements can be achieved.