Eastern Nevada County Transit Development Plan Update

Final Plan

Prepared for the

Nevada County Transportation Commission

Prepared by

TRANSPORTATION CONSULTANTS, INC.

LSC Transportation Consultants, Inc.

Eastern Nevada County
Transit Development Plan Update

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Chapter 1
Introduction

Transportation considerations play a key role in the quality of life provided by any community. Access to social and medical services, employment opportunities, educational resources and basic necessities are issues of universal concern, as they have a strong impact on the economy, ease of movement, and quality of life for residents of an area. In addition to providing mobility to residents without easy access to a private automobile, transit services can provide a wide range of economic development and environmental benefits.

The Nevada County Transportation Commission (NCTC), aware of the importance of transportation issues, has retained LSC Transportation Consultants, Inc., to prepare a Five-Year Transit Development Plan for Eastern Nevada County. For the purposes of this study, Eastern Nevada County is defined as the area east of Yuba Pass (near the intersection of Interstate 80 (I-80) and State Route (SR) 20). This study provides an opportunity to develop plans that will tailor transit services to current and near-term future conditions in the study area.

This study presents and reviews the setting for transportation, including demographic factors, as well as the recent operating history of Truckee Transit services as well as connecting services. The document also contains the results of on-board passenger surveys conducted on the winter Truckee Transit fixed-route and Dial-A-Ride (DAR) buses. The findings of these analyses were used to guide the development of the Transit Development Plan (TDP), which encompasses the evaluation of service alternatives, capital alternatives, funding alternatives, and managerial alternatives, and ultimately presents a recommended Plan.

The overall study affords the leaders and transportation providers of the area an opportunity to take an in-depth look at the transit systems currently in place, identify the optimal manner in which transit can meet the public's needs within this dynamic area, and carefully identify where transit resources should be devoted over the plan period.

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Chapter 2
Study Area Characteristics

STUDY AREA

Eastern Nevada County is located in the central Sierra Range of California. As shown in Figure 1, Eastern Nevada County is bounded by Sierra County to the north, Placer County to the south, and Washoe County, Nevada to the east. Eastern Nevada County covers approximately 345 square miles of mountains, rivers, and valleys, ranging in elevation from roughly 5,300 feet near Emigrant Gap to over 9,100 feet at Castle Peak. Eastern Nevada County is traversed by three main highways: I-80 running east-west, SR 89 running north-south, and SR 267 running northwest-southeast from the junction of I-80 in Truckee to the Placer County line.

The main economic and population center in Eastern Nevada County is the Town of Truckee. Situated in a broad valley at an elevation of 5,850 feet, Truckee serves as the lodging, tourist, and commercial center of the region, as well as a center for medical services and higher education. Other communities include Kingvale, Soda Springs, and Floriston. Although winter and summer recreational opportunities abound in Eastern Nevada County, Truckee also acts as a gateway community for the Tahoe Basin to the south. Additionally Truckee is within a one-half hour drive of urban medical and commercial services in Reno, Nevada.

It should be noted that circulation in Eastern Nevada County is closely tied to adjacent developments and activity centers in Eastern Placer County immediately to the south. In particular, the Northstar/Martis Valley and Squaw Valley areas of Placer County impact transit needs and services in the Truckee area, while the Sugar Bowl and Royal Gorge/Serene Lakes areas of Placer County impact conditions in the Donner Summit area. Transit issues in the adjacent portions of Placer County are considered in this study, to the degree necessary to address regional transit issues.

POPULATION CHARACTERISTICS

Population

As shown Table 1, the population of Eastern Nevada County was approximately 16,780 in 2011, according to the US Census American Community Survey. The highest populations are found in the Census Tracts associated with Gateway, Prosser / Lakeview, Ponderosa Palisades and Downtown areas (Census Tract 12.06) and with Glenshire (Census Tract 12.05). The general Truckee (including Prosser Lakeview and Glenshire) and Tahoe Donner / Donner Lake areas constitute 95 percent of the study area's permanent population.

The population of Eastern Nevada County has grown substantially since 2000. Between 2011 and 2000, the study area population has grown by roughly 18.5 percent, as shown in Table 2. The Town of Truckee, according to the Census, has grown by roughly 15.6 percent, representing an average annual growth rate of 1.3 percent.

FIGURE 1

Eastern Nevada County Site and Location Map

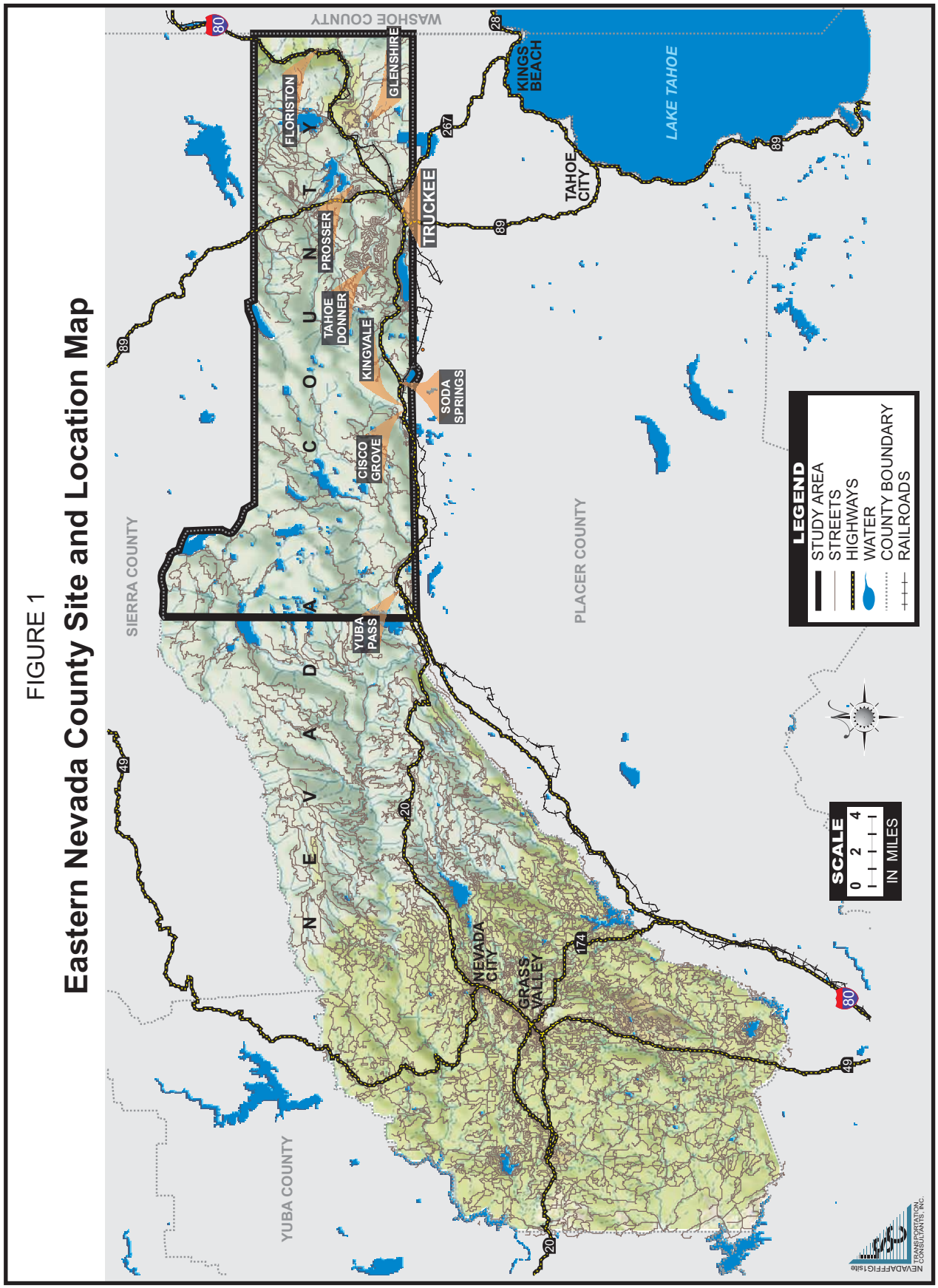


TABLE 1: Eastern Nevada County 2011 Population Characteristics

Census Tract	Area Description	Total Population	# of Households	Youth (5-17) #	Youth (5-17) % of Census Tract	Youth (5-17) % of Study Area	Elderly (65+) #	Elderly (65+) % of Census Tract	Elderly (65+) % of Study Area	Below Poverty #	Below Poverty % of Census Tract	Below Poverty % of Study Area	Zero Vehicle Households #	Zero Vehicle Households % of Census Tract	Zero Vehicle Households % of Study Area
9 (1)	Eastern Nevada County outside of Truckee (Floriston and Donner Summit communities)	748	359	78	10.4%	2.8%	85	11.4%	8.0%	79	10.6%	5.5%	27	7.5%	7.7%
12.03	Tahoe Donner (Eastern Portion)	3,118	1,278	424	13.6%	15.4%	193	6.2%	18.2%	245	7.9%	17.1%	39	3.1%	11.2%
12.04	Donner Lake, Tahoe Donner (Western Portion)	2,885	1,360	234	8.1%	8.5%	283	9.8%	26.7%	48	1.7%	3.4%	42	3.1%	12.1%
12.05	Glenshire	4,359	1,577	1,003	23.0%	36.4%	205	4.7%	19.3%	323	7.4%	22.6%	15	1.0%	4.3%
12.06	Gateway, Prosser Lakeview, Ponderosa Palisades, Downtown	5,670	2,141	1,015	17.9%	36.9%	295	5.2%	27.8%	737	13.0%	51.5%	225	10.5%	64.7%
	Estimated Population of Study Area	**16,780**	**6,715**	**2,753**	16.4%	100.0%	**1,061**	6.3%	100.0%	**1,432**	8.5%	100.0%	**348**	5.2%	100.0%

Note 1: Population for the portion of Census Tract 9 within the Study Area is estimated using recent 2010 Census and previous 2000 Census data; Block Group data was not available for all categories in 2010 Census

Source: 2011 American Community Survey 5-Year Estimates, US Census Bureau, 2013

TABLE 2: Historical Population for Eastern Nevada County

	Total Population		Total Population Change 2000 - 2011	% Change 2000 - 2011	Avg. Annual % Change
	2000	2011			
Eastern Nevada County	14,165	16,780	2,615	18.5%	1.6%
Town of Truckee	13,864	16,032	2,168	15.6%	1.3%

Source: 2000 US Census and 2011 American Community Survey 5-Yr Estimates, US Census Bureau, 2013

Potentially Transit Dependent Population

Nationwide, transit system ridership is drawn largely from various groups of persons who make up what is often referred to as the "transit dependent" population. This category includes youth, elderly persons, persons with disabilities, low income persons, and members of households with no available vehicles. There is considerable overlap among these groups. Table 1 above presents the estimated transit dependent population by census tract in Eastern Nevada County for 2011, while Figure 2 below shows the census tract locations in Nevada County. Note that all portions of Census Tract 9.0 are considered part of the Eastern Nevada County study area.

The youth population, ages 5 to 17 years old, make up roughly 16.4 percent of the Eastern Nevada County population. Census Tract 12.06 (Prosser Lakeview, Downtown, Ponderosa Palisades, Gateway) has the largest concentration of youths, followed by Census Tract 12.05 (Glenshire). Together, these areas represent 73 percent of all the youths in the eastern portion of the County. The area within Census Tract 9 located in the study area has the lowest number of youths. This information is presented in Figure 3.

There are an estimated 1,348 persons aged 65 or over residing in the study area (or 6.3 percent of the total population). The greatest numbers of elderly persons are located in Census Tracts 12.06 and 12.04, with 27.8 percent and 26.7 percent of the total elderly population, respectively. Figure 4 shows the concentrations of elderly persons throughout the study area.

Low-income persons are another likely market for transit services, as measured by the number of persons living below the poverty level. An estimated 1,434 low-income persons reside in the study area, representing 7.3 percent of the total population. This is a significant increase from 2008, when only 4.4 percent of the population was considered low-income. The percentage and concentration of those below poverty status are highest in the central portion of Truckee, with Census Tract 12.06 housing over one-half of the total low-income population. This information is also depicted in Figure 5.

The number of households without a vehicle available is estimated at 348, as also shown in Table 1. This represents 5.2 percent of the total households in the area. Like the low-income group, this figure has increased from the last TDP study, when no vehicle households only represented only 2.6 percent. The greatest concentration of zero-vehicle households, nearly 65 percent, is in Census Tract 12.06, which includes the Senior Apartment complex. This information is presented graphically in Figure 6.

Figure 2:
Eastern Nevada County Census Tract Locations

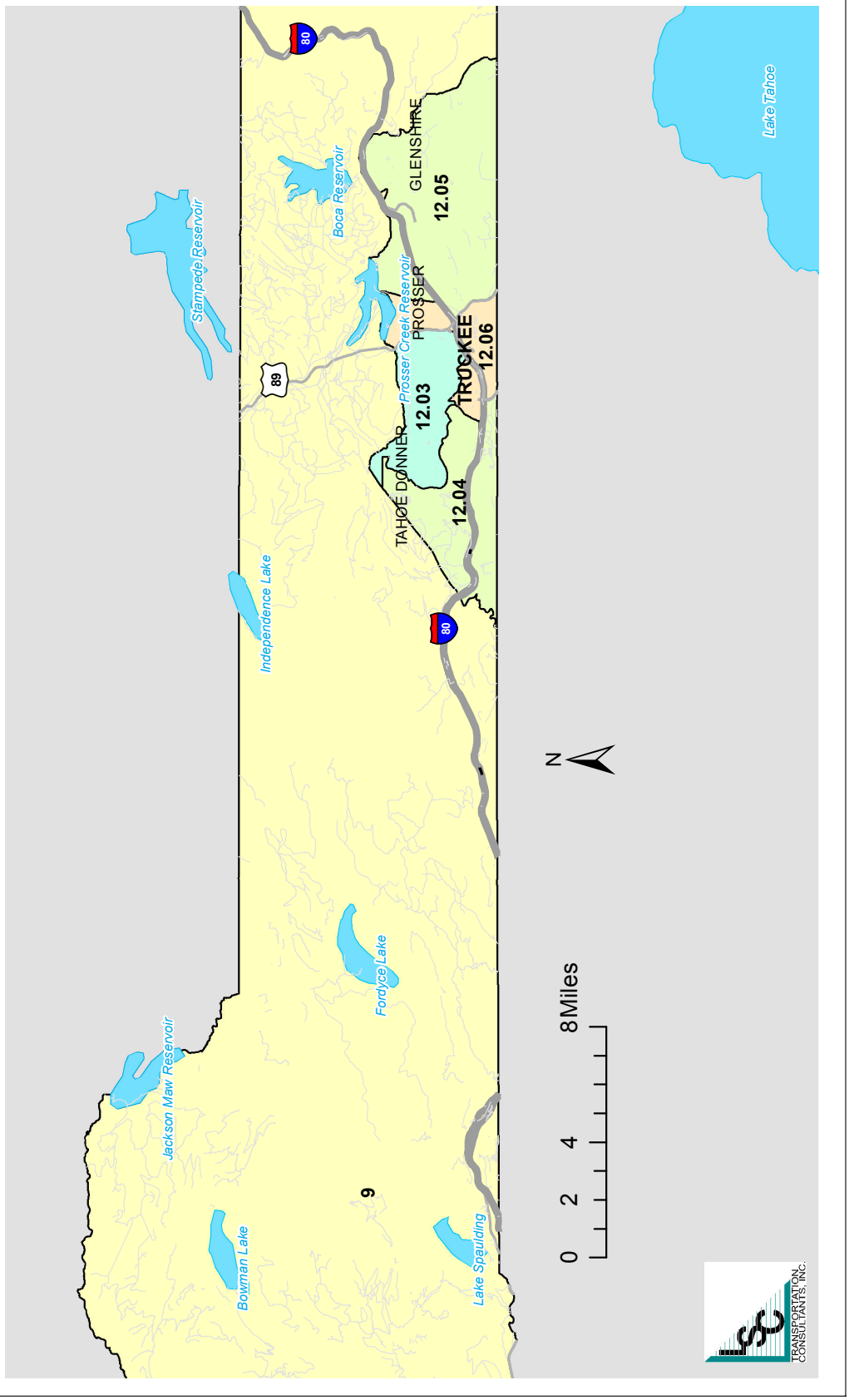


Figure 3:
Eastern Nevada County Youth Population by CensusTract

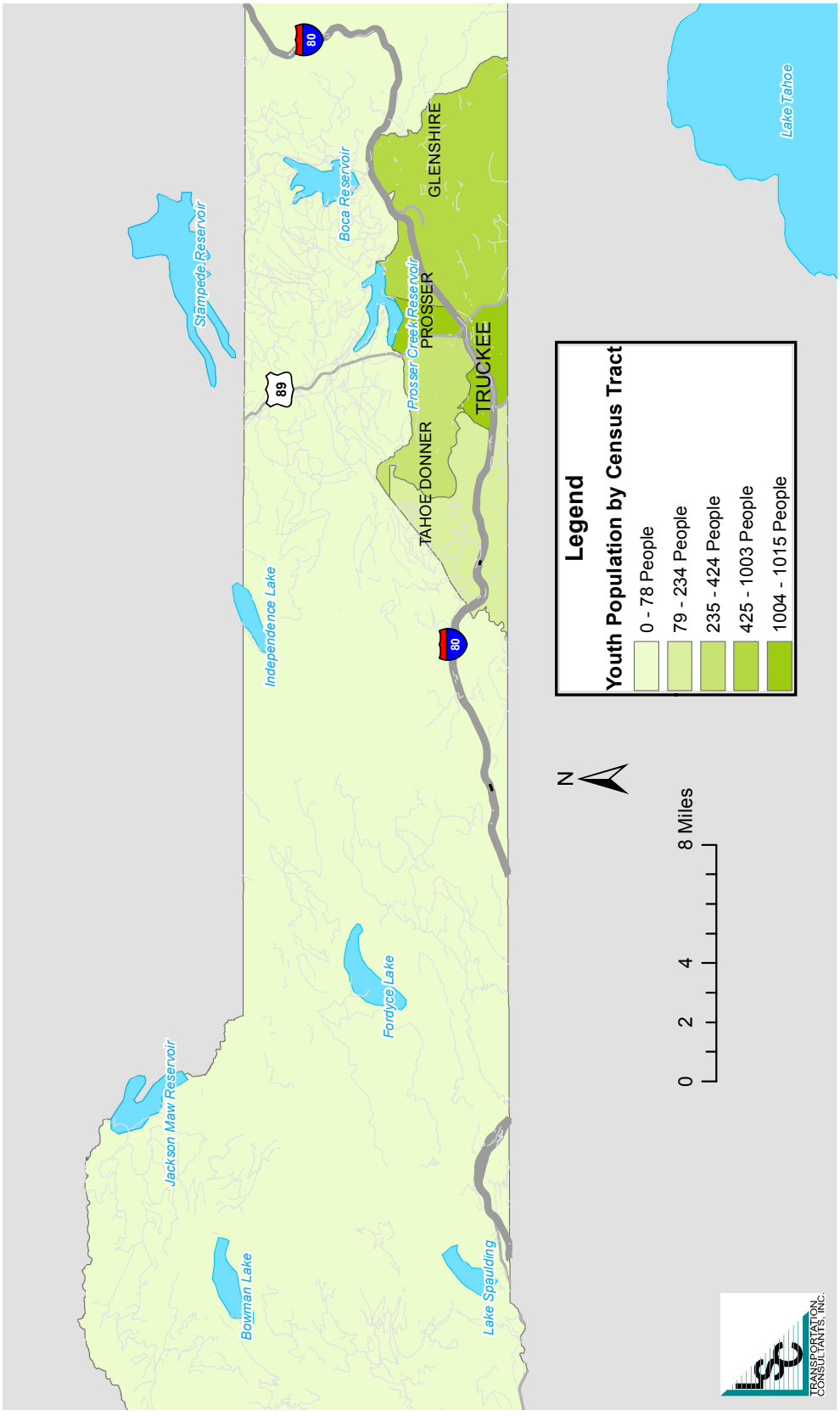


Figure 4:
Eastern Nevada County Elderly Population by Census Tract

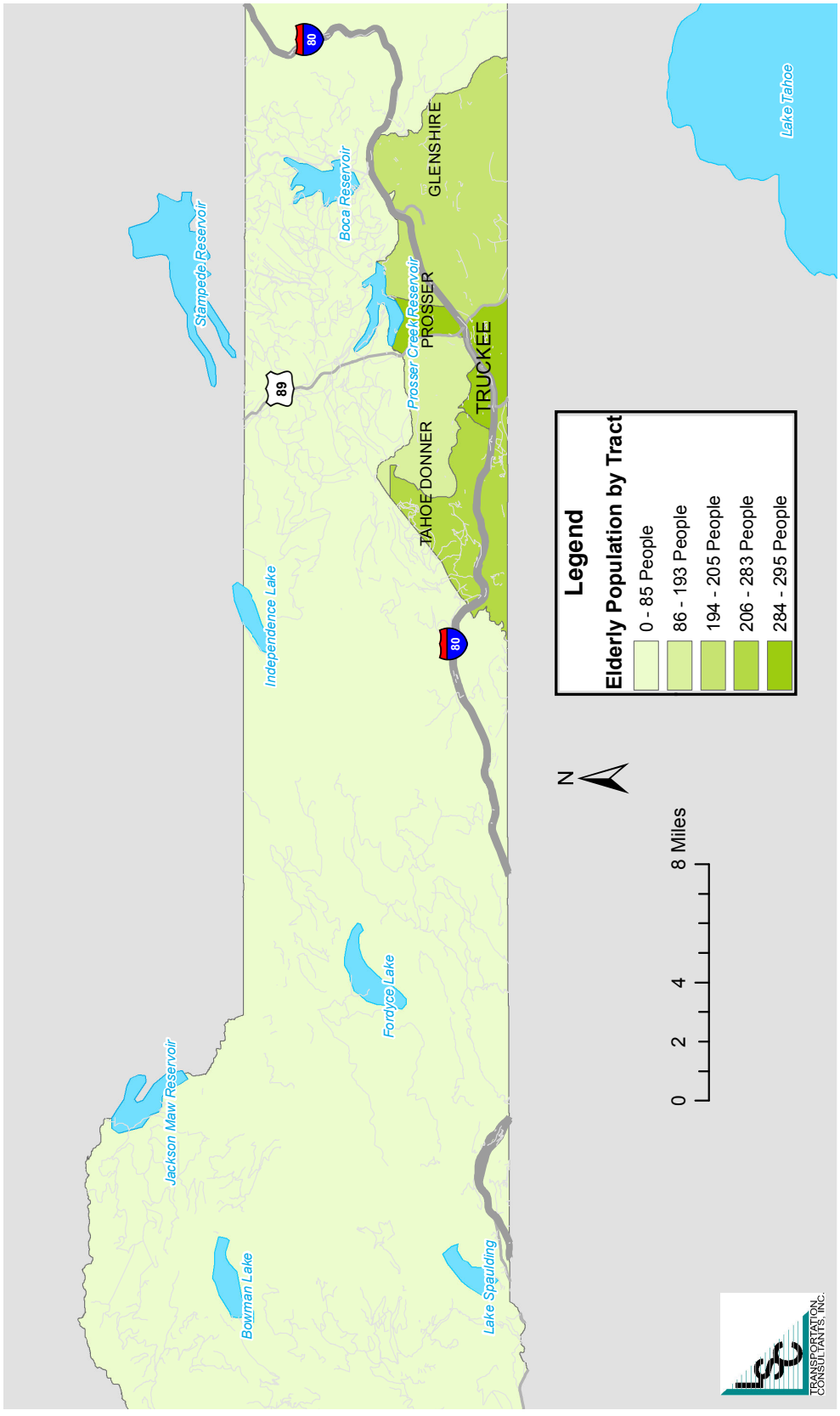
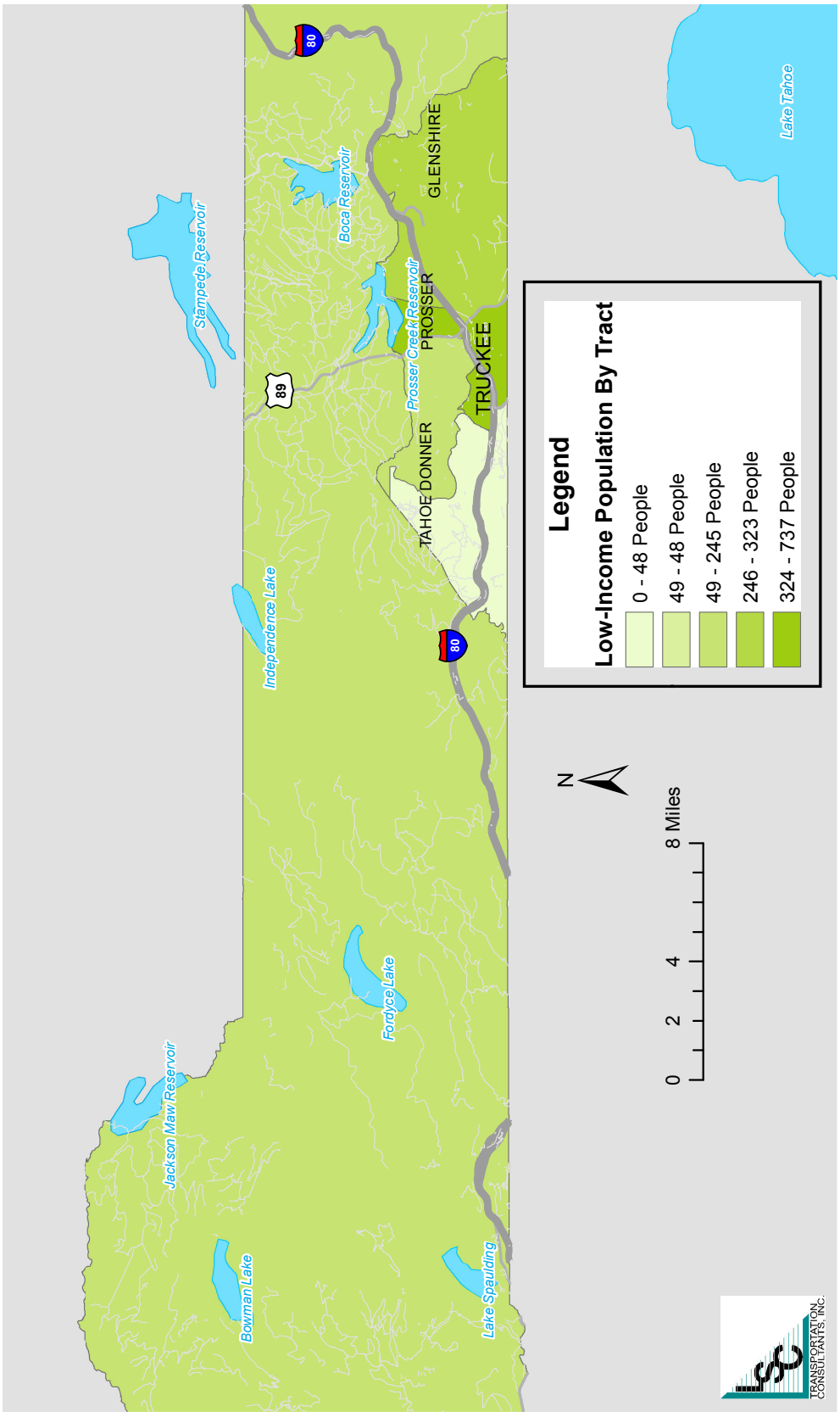


Figure 5:
Eastern Nevada County Low-Income Population by Census Tract



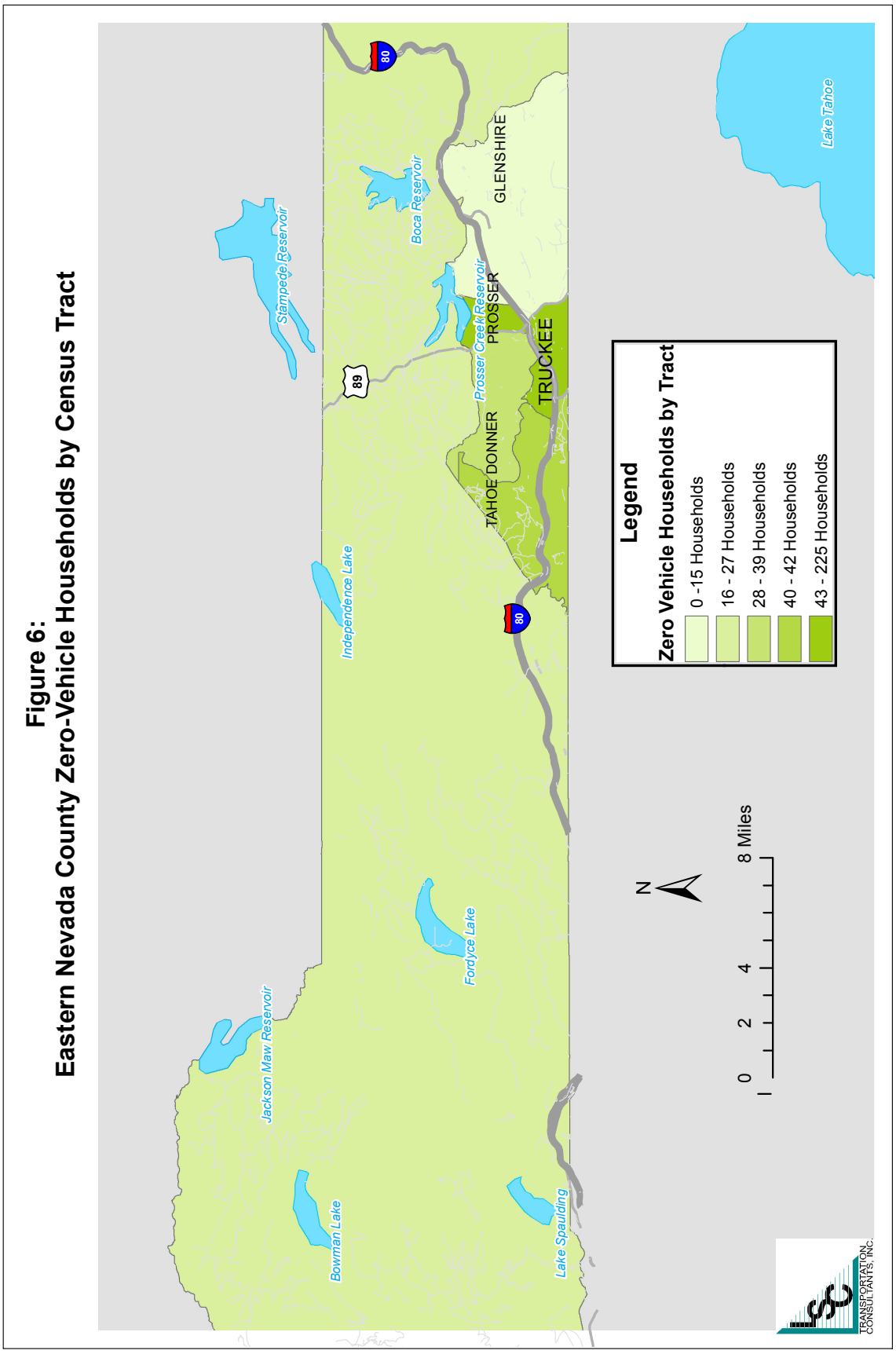


Figure 6:
Eastern Nevada County Zero-Vehicle Households by Census Tract
Legend
Zero Vehicle Households by Tract
0 -15 Households
16 - 27 Households
28 - 39 Households
40 - 42 Households
43 - 225 Households
N
0 2 4 8 Miles
80
89
80
Stampede Reservoir
Boca Reservoir
Prosser Creek Reservoir
Independence Lake
Jackson Maw Reservoir
Fordyce Lake
Bowman Lake
Lake Spaulding
Lake Tahoe
GLENSHIRE
PROSSER
TRUCKEE
TAHOE DONNER
TRANSPORTATION CONSULTANTS, INC.

The Census Bureau defines "mobility-impaired" persons as having a health condition lasting more than six months that makes it difficult to go outside the home alone. This population is an important factor when determining transit needs. Unfortunately, the US Census does not have recent data for this population at the Census Tract level, and since the eastern portion of Nevada County is relatively small compared to the County as a whole, it is not appropriate to apply the countywide percentage to the study area. Further, because Census Tract boundaries changed between the 2000 Census and the 2010 Census, simply applying a growth rate to the 2000 Census data would not be feasible. The detailed data from the 2000 Census (at the Tract level) showed that 2.4 percent of the population in the Eastern Nevada County was considered mobility-limited. For this study, the most accurate assumption that can be made is to apply this percentage to the recent population data. Doing show yields a potential 468 persons in the study area that are mobility limited. Based on land use patterns in the County, the location of these populations likely has not changed substantially; previous data revealed that the Sierra Meadows area had the greatest concentration of mobility impaired persons.

In comparing the geographic distribution of the potentially transit dependent populations, some interesting patterns emerge:

- The location of greatest concentrations of low income population, youth population and zero vehicle households are consistently in the census tract that encompasses Downtown, Gateway, Prosser Lakeview and Ponderosa Palisades. Given the limited existing service in the Prosser Lakeview area, this indicates an area of potentially relatively great unmet transit needs.

- The location of the greatest concentration of elderly (the western portions of town, including Donner Lake and the western portion of Tahoe Donner) is also an area of relatively low number of households without a vehicle.

ECONOMY AND EMPLOYMENT

Originally formed as a transportation and logging center, modern Eastern Nevada County and Truckee has an economy based largely on tourism. This is due to the area's many recreational attractions, including Donner Memorial State Park, historic downtown Truckee, the many ski areas, and the access to both the immediate area and Lake Tahoe provided by I-80 and SR 89 and SR 267. The economy in Eastern Nevada County is very seasonal. Per the *Town of Truckee 2025 General Plan*, approximately 48 percent of retail sales are earned during the summer months, 39 percent during the winter, and only 13 percent during the shoulder seasons of spring and fall. Further, the document states that roughly 46 percent of housing units in the town are occupied seasonally. While this has created a semi-seasonal economy, a national trend in destination resort areas is to provide amenities for year-round attractions. In recent years, Truckee has seen an increase of year-round residents. This trend can be expected to continue as the *Town of Truckee 2025 General Plan* contains goals, policies, and actions to promote the expansion of non-tourism related economic sectors to increase year-round employment opportunities and provide higher-wage skilled jobs.

TABLE 3: Eastern Nevada County Major Employers

Employer	Number of Employees
Northstar California [1]	1000 - 4999
Alpine Meadows [1]	500 - 999
Resort at Squaw Creek [1]	500 - 999
Village Lodge - Sugar Bowl	500 - 999
Tahoe Forest Hospital	500 - 999
Boreal Ski Inn	500 - 999
Tahoe Truckee Unified School District	500 - 900
Ritz Carlton Hotel Highlands [1]	250 - 499
Ritz Carlton [1]	250 - 499
Boreal Ski Area	250 - 499
Tahoe Donner Association	250 - 499
Trimont Land Co	250 - 499
Clear Capital	250 - 499
Safeway	100 - 249

Note 1: Employer located in Placer County.
Source: Employment Development Department, Labor Market Information, 2013

Table 3 shows the major employers for the study area, including areas in adjacent Placer County. Not surprisingly, employers associated with the tourism industry represent the majority of jobs in the area. Northstar California, Squaw Valley and Alpine Meadows are some of the top employers, and while they are located in Placer County, they do generate a substantial amount of employment for residents of the study area.

Data from the US Census (2011 American Community Survey) estimated the labor force in the study area to be 11,667 persons, with an unemployment rate of 9.5 percent. This is comparable with the Town of Truckee, which had an unemployment rate of 9.6 percent, but slightly higher than 9.2 percent unemployment rate of Nevada County as a whole. In comparison, the state of California's unemployment rate was listed as 10.1 percent. This information is presented in Table 4.

COMMUTE PATTERNS

The US Census maintains the "Longitudinal Employer Household Dataset," which provides detailed data on the location of employment for various areas of residence as well as data on the location of residences of a specific area's workers. Table 5 presents commute pattern data for 2010 at the county and city/town level. The top portion of the table presents information about where residents of Eastern Nevada County work, while the lower portion shows where people live that commute into Eastern Nevada County.

TABLE 4: Eastern Nevada County Employment Status, 2011

Census Tract	Population In Labor Force	Population Employed	Population Unemployed	Unemployment Rate	Not in Labor Force
9	1,732	1,575	158	*9.1%*	1,223
12.03	1,865	1,697	170	*9.1%*	714
12.04	2,017	1,911	109	*5.4%*	501
12.05	2,528	2,309	220	*8.7%*	794
12.06	3,526	3,077	451	*12.8%*	876
Total Eastern Nevada County	***11,667***	***10,569***	***1,107***	***9.5%***	***4,109***

Source: 2007 - 2011 American Community Survey 5-Year Estimates, US Census Bureau, 2013

Where Eastern Nevada County Residents Work

Results indicate that just fewer than one-half (49 percent) of study area residents work within Nevada County, with approximately 39 percent of all residents work within the Town of Truckee. Another 19 percent work in Placer County, which includes about 2.8 percent of residents commuting to the Sunnyside-Tahoe City CDP (Squaw Valley, Alpine Meadows), as well as other North Lake Tahoe locations like Kings Beach, Carnelian Bay, Dollar Point and Tahoe Vista. Approximately 8.3 percent of residents commute to Washoe County, including 6.3 percent to Reno, 1.1 percent to Incline Village, and just under 1 percent to Sparks. Roughly 4.6 percent of residents commute to Sacramento County, including the City of Sacramento.

Where Eastern Nevada County Workers Live

The majority (55.8 percent) of persons that work in Eastern Nevada County live within the County. Of the persons that work in the study area, 38.6 percent live in the Town of Truckee. Approximately 12.3 percent of area workers commute from Placer County, including Kings Beach, Tahoe Vista, Sunnyside-Tahoe City and Dollar Point. Another 12.1 percent commute from Washoe County, with most traveling from Reno, Sparks and Incline Village. There are also smaller numbers of commuters traveling from other areas of Nevada County, including Grass Valley (2.5 percent).

MEANS OF TRANSPORTATION TO WORK

The proportion of travel by a specific travel mode is defined as the “mode split.” Table 6 presents commuter mode splits by Census Tract for the study area. According to data results from the US Census American Community Survey, the majority of employed residents (75.2 percent) drove to work alone, while 11.7 percent carpooled. Another 3.0 percent walked, 1.0 percent rode a bicycle, and 0.4 percent reported “taxi, motorcycle or other means.”

TABLE 5: Eastern Nevada County Commute Pattern Data, 2010

Location of Employment for Eastern Nevada County Residents

Job Counts in Counties	# Persons	% of Total	Job Counts in Cities/Towns	# Persons	% of Total
Nevada County, CA	**3,798**	**49.1%**	**Truckee, CA**	**3,014**	**38.9%**
Placer County, CA	1,472	19.0%	Reno, NV	487	6.3%
Washoe County, NV	646	8.3%	Sunnyside-Tahoe City CDP, CA	218	2.8%
Sacramento County, CA	359	4.6%	Sacramento, CA	183	2.4%
Santa Clara County, CA	124	1.6%	Grass Valley, CA	176	2.3%
Alameda County, CA	121	1.6%	San Francisco, CA	98	1.3%
San Francisco County, CA	98	1.3%	Incline Village CDP, NV	82	1.1%
Butte County, CA	84	1.1%	Nevada City, CA	74	1.0%
Contra Costa County, CA	82	1.1%	Auburn, CA	55	0.7%
Los Angeles County, CA	64	0.8%	Kings Beach CDP, CA	54	0.7%
El Dorado County, CA	56	0.7%	Sparks, NV	52	0.7%
All Other Locations	836	10.8%	All Other Locations	3,247	42.0%
Total Number of Jobs	*7,740*	*100.0%*	*Total Number of Jobs*	*7,740*	*100.0%*

Location of Residence for Eastern Nevada County Workers

County of Residence for Workers	# Workers	% of Total	City/Town of Residence for Workers	# Workers	% of Total
Nevada County, CA	**4,492**	**55.8%**	**Truckee, CA**	**3,111**	**38.6%**
Placer County, CA	989	12.3%	Reno, NV	541	6.7%
Washoe County, NV	978	12.1%	Grass Valley, CA	203	2.5%
Sacramento County, CA	173	2.1%	Sparks, NV	105	1.3%
El Dorado County, CA	140	1.7%	Incline Village CDP, NV	101	1.3%
Sierra County, CA	96	1.2%	Roseville, CA	100	1.2%
Contra Costa County, CA	68	0.8%	Alta Sierra CDP, CA	96	1.2%
Alameda County, CA	63	0.8%	Rocklin, CA	65	0.8%
Plumas County, CA	61	0.8%	Lake Wildwood CDP, CA	62	0.8%
Butte County, CA	58	0.7%	Nevada City, CA	60	0.7%
Clark County, NV	53	0.7%	Kings Beach CDP, CA	46	0.6%
All Other Locations	880	10.9%	All Other Locations	3,561	44.2%
Total Number of Workers	*8,051*	*100.0%*	*Total Number of Workers*	*8,051*	*100.0%*

Source: US Census Bureau LEHD Database, 2013

Unfortunately, the data reflects that no workers commuted via public transportation. An estimated 8.6 percent of the labor force worked at home. Note that this data does not reflect seasonal residents of the region.

TRAVEL PATTERN EVALUATION AND TRAFFIC CONDITIONS

Due to the very limited highway network and the great fluctuations in traffic levels generated by visitor activity, the study area is negatively impacted by several episodic, but recurring, traffic congestion problems:

- Perhaps the area with the most prevalent congestion is Truckee's historic commercial core. Limited roadway space, coupled with high levels of pedestrian activity, the friction

TABLE 6: Truckee Residents Commute Mode Split

		Travel Mode to Work														
		Drive Alone		Carpool		Taxi, Motorcycle or Other Means		Public Transit		Bicycle		Walk		Work at Home		
Census Tract		#	%	#	%	#	%	#	%	#	%	#	%	#	%	Total
9	Eastern Nevada County outside of Truckee (Floriston and Donner Summit communities)	1,108	*73.3%*	105	*6.9%*	0	*0.0%*	0	*0.0%*	23	*1.5%*	40	*2.6%*	235	*15.6%*	**1,511**
12.03	Tahoe Donner (Northeast)	1,210	*72.4%*	217	*13.0%*	8	*0.5%*	0	*0.0%*	0	*0.0%*	13	*0.8%*	223	*13.3%*	**1,671**
12.04	Donner Lake, Tahoe Donner	1,702	92.2%	54	2.9%	15	0.8%	0	0.0%	0	0.0%	0	0.0%	74	4.0%	**1,845**
12.05	Glenshire	1,747	79.5%	171	7.8%	15	0.7%	0	0.0%	0	0.0%	24	1.1%	241	11.0%	**2,198**
12.06	Gateway, Prosser Lakeview, Ponderosa Palisades, Downtown	1,900	63.9%	650	21.9%	0	0.0%	0	0.0%	80	2.7%	234	7.9%	109	3.7%	**2,973**
Subtotal: Town of Truckee		*6,559*	*75.5%*	*1,092*	*12.6%*	*38*	*0.4%*	*0*	*0.0%*	*80*	*0.9%*	*271*	*3.1%*	*647*	*7.4%*	***8,687***
Total Study Area		***7,667***	***75.2%***	***1,197***	***11.7%***	***38***	***0.4%***	***0***	***0.0%***	***103***	***1.0%***	***311***	***3.0%***	***882***	***8.6%***	10,198

Source: US Census Bureau American Community Survey 2006 - 2010

generated by on street parking maneuvers, and the effects of the at-grade railroad crossing on SR 267 combine to generate traffic delays through the commercial core.

- Skier and summer visitor traffic creates episodic traffic congestion in the Truckee area. Downtown Truckee traffic congestion centers around the intersection of Bridge Street /West River Street and Bridge Street/Donner Pass Road.

- Other traffic circulation problems sometimes occur at the intersection of Glenshire Drive and Donner Pass Road when residents make a left hand turn out of the subdivision.

- The winter weather-related traffic problems on Interstate 80 across Donner Summit are legendary. The institution of chain control or temporary closure across the summit creates very long delays and virtual gridlock throughout the area. In turn this creates traffic backup along SR 89 from Squaw Valley and along SR 267 from Northstar.

- The growth of commercial activity in the Gateway area has led to increasing traffic congestion along Donner Pass Road and SR 89 south.

These increases in traffic congestion throughout the study area have heightened local concern regarding solutions to transportation problems, such as public transit services.

Truckee Traffic Model Data

A good source of information regarding overall travel patterns is the Town of Truckee's computerized traffic model. Table 7 presents travel data for the Town of Truckee, as obtained from the Truckee Traffic Model, summarized into the key areas in the Truckee/Martis Valley area as well as for the key external roadways entering/exiting the area. The model provides information regarding trip patterns, including home-based work, home-based other, non-home based, recreational, and internal-external.

As shown in the table, the largest proportion of trips both end and originate in the Gateway area (1,432 trips and 1,575 trips, respectively). The greatest number of trips between two given locations was 241 trips completely internal to the Gateway area, meaning that trips began and ended within this designated area. Of these, 60 percent were considered "non-home based," indicating that the majority of these trips were not originating from home, and were most likely linked with other trips in the area or to / from work. Trips between Gateway and Tahoe Donner is another common pattern (240 trips Gateway to Tahoe Donner, 232 trips Tahoe Donner to Gateway), the vast majority of which are "home-based other," where either the origin or destination of the trip was a residence. This suggests shopping, dining, appointments or other errands were the main purpose of the trip.

In addition to the Gateway area, a substantial number of trips ended in the Crossroads – Deerfield and Downtown Truckee areas (1,144 trips and 990 trips, respectively). Likewise, these areas also commonly served as trip origins, with 1,153 trips beginning in the Crossroads – Deerfield area and 1,005 trips beginning in Downtown Truckee.

TABLE 7: Truckee Traffic Model Data

Summer PM Peak-Hour Vehicle-Trips

		Destination																	
		Down-town	Gateway	Martis Valley	Donner Lake	Tahoe Donner	Glen-shire	Northstar	Cross-roads	Brockway Rd. Area	Prosser Lakeview	I-80 West	Donner Pass Rd West	89 North	Hirsch-dale	I-80 East	267 South	89 South	Total
Origin	Downtown	111	142	44	37	56	105	31	122	148	83	57	8	10	1	57	27	47	***1,038***
	Gateway	117	241	37	93	240	107	28	183	120	79	85	18	6	1	56	19	144	***1,432***
	Martis Valley	45	44	39	16	31	52	38	42	98	44	12	3	5	1	32	54	12	***556***
	Donner Lake	26	90	9	90	40	22	5	54	20	17	33	48	1	0	20	7	9	***482***
	Tahoe Donner	35	232	11	27	119	13	4	112	14	21	29	19	9	1	87	38	28	***769***
	Glenshire	84	69	23	10	7	111	9	70	26	38	8	5	2	3	142	20	6	***626***
	Northstar	30	30	40	7	9	20	196	30	32	18	4	1	0	0	13	74	1	***506***
	Crossroads	109	197	36	58	115	86	28	113	108	65	41	5	4	0	31	12	145	***1,009***
	Brockway Rd. Area	126	77	57	12	18	33	18	89	129	43	15	10	9	1	84	80	33	***801***
	Prosser Lakeview	75	67	31	18	31	62	15	61	68	79	21	7	24	1	59	25	22	***642***
	I-80 West	73	110	17	40	26	7	5	52	16	27								***372***
	Donner Pass Rd West	8	18	4	39	14	4	1	5	8	7								***107***
	89 North	12	8	6	2	7	2	1	4	8	21								***70***
	Hirschdale	1	1	1	0	1	3	0	1	1	1								***9***
	I-80 East	54	54	33	18	62	106	11	30	65	52								***485***
	267 South	28	20	66	6	27	14	72	11	65	23								***333***
	89 South	56	175	16	11	22	5	1	165	32	26								***509***
	Total	***990***	***1,575***	***469***	***484***	***825***	***751***	***463***	***1,144***	***960***	***642***	***306***	***124***	***70***	***8***	***581***	***356***	***446***	***9,748***

Served by Existing Fixed Routes (Summer)	
Total Served =	3,429
Total Trips =	9,748
Percent of Total Served =	35%

Source: Truckee Model, 2012

Based on the overall trip patterns identified in the table, the Gateway, Crossroads – Deerfield and Downtown Truckee areas include many amenities that generate a potentially high amount of transit demand. Within these areas are major activity centers, including Sierra College, Truckee High School, Safeway, RiteAid, SaveMart, Ace Hardware, Tahoe Forest Hospital (and associated medical offices), and the Truckee DMV, as well as miscellaneous other commercial areas with shopping and restaurants. In general, the Gateway and downtown Truckee areas are served by both the fixed route and Dial-A-Ride services provided by Truckee Transit, while the SR 89 TART route serves the Crossroads – Deerfield areas, as well as provides connections to Truckee Transit's fixed route.

Table 7 also indicates those trip pairs that are currently served by Truckee Transit or TART fixed routes in summer (highlighted in green) as well as those not served (not highlighted). Summing the total vehicle-trips for the origin/destination pairs currently served and dividing by the total vehicle-trips, the current fixed routes serve only 35 percent of the overall transportation needs, as evidenced by current traffic patterns. The greatest proportion of trips not currently served is to/from Tahoe Donner, followed by Glenshire.

MAJOR ACTIVITY CENTERS

The identification of major transit activity centers is useful in determining where transportation services might be needed. These types of centers include medical facilities, human service organizations, Senior Apartments and grocery stores. The region's major activity centers are situated in and around Truckee, with a few scattered on the outskirts of town. Major activity centers in Eastern Nevada County include the following:

Activity Centers for Seniors, Persons with Disabilities, Youth and Low-Income Persons

- Truckee-Donner Community Center
- Sierra Senior Services and Senior Apartments
- Choices
- Project MANA
- Headstart
- Sierra Nevada Children's Services
- Tahoe Women's Services
- Nevada County Mental Health Department
- Alta California Regional Center
- Family Resource Center of Truckee
- Big Brothers Big Sisters
- Nevada County Health and Human Services Department

Medical Facilities

- Tahoe Forest Hospital
- Gateway Urgent Care
- Truckee Tahoe Medical Group (Urgent Care)

Government

- Truckee Town Hall
- Department of Motor Vehicles
- Post Office
- County Library
- County Courthouse

Educational

- Sierra College
- Truckee Elementary
- Glenshire Elementary
- Alder Creek Middle School
- Tahoe Truckee High
- Sugar Bowl Academy
- Sierra Mountain Community Education Center

Recreational

- Community Swimming Pool
- Truckee Regional Park
- Skate Park
- Riverview Sports Park
- Rodeo/Fair Grounds
- Donner Memorial State Park
- Donner Lake
- Tahoe Donner Equestrian Center
- Tahoe Donner Golf Course
- Coyote Moon Golf Course
- Northstar Golf Course
- Boreal Mountain Ski Resort
- Sugar Bowl Ski Area
- Donner Ski Ranch
- Tahoe Donner Ski Area
- Royal Gorge Cross Country Ski Resort
- Tahoe Donner Cross Country Center
- Northstar-at-Tahoe
- Squaw Valley USA
- Alpine Meadows

Retail

- Gateway Center
- Crossroads Center
- Donner Plaza
- Citizen Bank Plaza
- Commercial Row
- Westgate Center

PLANNED DEVELOPMENT

The following lists recent developments that have been constructed in the Truckee area.

- **Gray's Crossing –** This development, located off of SR 89 north of I-80, began construction in the last few years. At buildout, the project will include 436 single family dwelling units, 238 multifamily dwelling units (including 166 workforce housing units), 120 room hotel, an 18 hole golf course, office and commercial uses including a gas station. The employee housing component, Henness Flat, has already been constructed and is served by the Truckee Transit fixed-route service.

- **Old Greenwood –** This development encompasses the area north of Olympic Heights, east of Gray's Crossing and south of the Prosser Lakeview neighborhood. The 18 hole championship golf course has been constructed for this development along with nearly 100 single and multifamily dwelling units south of I-80. The Old Greenwood project does not include commercial or retail uses.

- **Development along Brockway Road** – Residential and commercial development has sprung up along Brockway Road (old SR 267). The 109-room Hampton Inn Hotel and the Winter Creek town homes are examples. Brockway Road is currently served by TART in winter and Truckee Transit fixed-route service in the remainder of the year.

Potential future major developments proposed in the Eastern Nevada County region include the following:

- **Planned Community 1** – This planning area consists of the gravel quarry area south of Deerfield Drive and north of the Union Pacific Railroad line, with access provided off of Coldstream Road just south of Donner Pass Road in the western portion of Truckee. The project area could ultimately encompass roughly 220 single-family units and 80 multi-family housing units, as well as 30,000 square feet of commercial development. Environmental studies are currently underway, though development will not occur for several years at the earliest, and total development within the five-year SRTP period will probably be limited. The area is not currently directly served by transit, though the Truckee Transit fixed-route passes along Donner Pass Road just to the north.

- **Joerger Ranch (Planned Community 3)** – This planning area within the Town of Truckee is located between Brockway Road and the northwest corner of the Tahoe Truckee Airport. The future project may include a major supermarket, 240,000 square feet of manufacturing, office and industrial uses, 42 multifamily units, gas station, restaurant and retail (shopping center including a supermarket and specialty retail). The project is currently located along the TART SR 267 route and would represent a significant transit generator in the future after development.

- **Truckee Railyard Development** – The Railyard Master Plan Area is located east of downtown Truckee and is bounded by Glenshire Drive to the north, Union Pacific Railroad right of way and East River Street to the south, Donner Pass Road and Bridge Street to the west and undeveloped land to the east. The Railyard Draft Master Plan has set forth a maximum level of development which can occur on the 20 parcels composing the Railyard Master Plan area: 570 residential units, 60 room hotel, 1,000 seat movie theater, 70,000 square feet of retail space, 15,000 square feet of office space, a 20,000 square foot grocery store, and 25,000 square feet of civic use. The intent is to create an attractive and pedestrian oriented development that extends existing downtown Truckee. As of the date of this report, the project has not begun construction due to funding issues. It is likely that no development will occur during the next five years. Full development of the area is envisioned to occur over several decades.

In addition to the above projects, the Town of Truckee will begin construction on an aquatics center addition to the Recreation Center, located on Donner Pass Road near the Pioneer Commerce Center. This area is currently served by the Truckee Transit fixed route. Further, in recent years there has been discussion regarding a new hotel and / or commercial center near the SR 267 and I-80 interchange. While no planning application has been submitted, this could be something that comes to fruition during the TDP plan period. Finally, the Hilltop area along Brockway Road (currently served by both TART winter service and Truckee Transit fixed route) could potentially be the site of commercial and residential development.

RECENT TRANSIT PLANNING PROCESSES

Previous Transit Development Plan

LSC Transportation Consultants, Inc. completed the previous transit development plans in 2003 and in 2009. The following service plan elements were recommended in the most recent plan:

- *Revised 3 – Loop Route in Non-Winter* – In response to the lower non-winter ridership on the Truckee Trolley service, a 3 – loop route plan was developed that would not increase costs. The route would serve new areas, including two employee housing facilities, Alder Creek Middle School, Pioneer Commerce Center and Coachland. This plan element has yet to be implemented.

- *Later Service on Winter Route* – This plan element would extend the winter route schedule by one additional one-way trip from Donner Summit to Henness Flats, by opening the doors to passenger boardings and alighting as the bus returns to the bus yard at the end of the day. This would accomplish two objectives: provide later service to ski resort employees and increase ridership.

- *Compliance with ADA Regulations for ADA Eligibility Process* – This was also a recommendation of the ADA Paratransit plan, so that Truckee's ADA program was compliant with federal regulations. The recommendation was to establish an eligibility/application process for disabled passengers wishing to receive priority status on Dial-A-Ride.

- *Compliance with ADA Regulations for Hours of Service* – The ADA requires that complementary paratransit be provided the same hours and days as the fixed route. Truckee Transit had a 2 hour period where Dial-A-Ride was not available while the winter fixed route was in service. The TDP recommended that Truckee Transit extend the Dial-A-Ride to coincide with fixed route service in winter, to operate between 7:00 AM to 9:00 PM on winter weekends.

- *Reduce Dial-A-Ride Service to One Vehicle between 8:00 AM and 9:00 AM and between 3:00 PM and 4:00 PM* – This recommendation was intended to reduce costs while minimizing transit service disruption and impacts on ridership.

- *Schedule DAR Trips to Glenshire Neighborhood 2 Times per Weekday* – To provide at least a minimum level of scheduled public transit service, the plan recommended timed stops be established on the Dial-A-Ride service in the Glenshire neighborhood, as the DAR bus was already out there for subscription trips multiple times per day. While Truckee Transit has essentially implemented this plan element, it is not as "formal" as the TDP had intended; as of June 2013, the Town has formalized the stop and included it in printed materials. Additionally, the Town is planning more outreach for this service to Glenshire residents, including posting schedules information at the stops in Glenshire – the General Store and the Glenshire clubhouse.

- *Schedule DAR Trips to Tahoe Donner Neighborhood 2 Times per Weekday* – In order to provide transportation to an area not within the fixed route service area, the TDP recommended twice weekly Dial-A-Ride trips to the Tahoe Donner neighborhood. This plan

element was not implemented, as the demand for service in this area ultimately did not warrant service.

The TDP also includes capital, institutional and management elements such as vehicle replacement, passenger amenities, bus stop signage, electronic fareboxes, marketing strategies, monthly reporting, new transit coordinator position, and contract bid process changes.

Truckee Transit Bus Stop Improvement Plan

LSC Transportation Consultants, Inc. completed the *Truckee Transit Bus Stop Improvement Plan* in 2009. This includes a program for improvements, consisting of new bus stops along the routes, new bus shelters, signage, pullouts and other capital elements. Included in this plan were:

- Eight new bus stops at the Truckee Senior Apartments, veterinary hospital / Maris Valley Professional Center, Town Hall, Truckee Recreation Center, Coachland Mobile Home Park, Alder Creek Middle School, Young Life and Boreal Mountain Resort.

- Relocation of four bus stops at Industrial / Pioneer Trail, Ski Academy, 7-11 / Regional Park, and Donner Memorial State Park.

- Removal of five bus stops at Donner Pass Road / Summit Drive, Tahoe Donner beach, Loch Leven Lodge, Donner Lake Boat Ramp, and Gift Shop / Village Resort.

- New signage to reflect the correct transit system name and logo, as well as no parking signs near stops and transit route / schedule information at certain bus stops.

- Two new bus shelters at Mt Judah Day Lodge and the Donner Summit Lodge.

- Replacement of existing bus shelters that are not consistent with newer styles, including Gateway Center / Bank of America and West End Beach.

- New bus pullouts at Donner Pines Market, West End Donner Lake, Sugar Bowl Ski Academy, Donner Ski Ranch and Donner Pass Road / Soda Springs Road.

Elements of this plan have been implemented. Comprehensive improvements in bus stop signage have been completed, as well as the construction of new bus shelters / benches.

Northeast Truckee Transit Plan Technical Memorandum

Mitigation measures established in the Environmental Impact Reports for the Gray's Crossing and Old Greenwood developments required the preparation of a transit plan by the developers that will provide residents, guests, and employees of the project with transit options to services in Truckee. LSC Transportation Consultants, Inc. developed a *Northeast Truckee Transit Plan Technical Memorandum* in 2007 that reviewed proposed land uses and potential future demand for transit services in the northeast Truckee region including Gray's Crossing, Old Greenwood,

Prosser neighborhood and the Pioneer Commerce Center. The study yielded the following conclusions:

- Year-round daytime public transit service to northeast Truckee is warranted and would be relatively effective compared with adopted standards and typical small-town or rural transit performance.

- Summer and winter evening service (until 10 PM) would be less effective, but still recommended. Evening service in the spring and fall is not recommended.

- Public transit service to Old Greenwood would not be effective. Year-round hourly service to Old Greenwood would only carry passengers on roughly one-third of all trips. The limited transit needs of Old Greenwood, including winter skier shuttle services and year-round employee shuttle service, should remain the responsibility of the private development. With provision of this service, participation in a public transit service should not be required.

- Service should be concentrated along the core corridor between downtown Truckee and Gray's Crossing via Pioneer Trail, with service extended to Prosser Lakeview. The most effective plan provides service twice per hour between Downtown, Pioneer Trail and Gray's Crossing, and hourly to Prosser Lakeview.

- One vehicle in operation at one time should provide sufficient seating capacity for the foreseeable future.

- While not addressed directly in this report, the provision of the door-to-door complementary paratransit service required by the ADA will have a relatively small impact on the overall Northeast Truckee Transit Plan. This service is provided for the whole of Truckee through the existing DAR program. The incremental cost associated with expansion of this program is expected to be relatively small.

- Gray's Crossing should be responsible for finding an equitable proportion of transit operating and capital costs. Based on the proportion of total ridership in the route service area generated by Gray's Crossing, this development should pay 30.5 percent of transit costs.

- At present, the Town of Truckee is collecting a transit mitigation fee from Gray's Crossing in the amount of $65,000 per year adjusted for inflation for a period of 50 years.

Nevada County Coordinated Public Transit Human Services Transportation Plan

Through the Safe Accountable Flexible Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) the Federal Transit Administration (FTA) offers several grant programs that are designed to assist the low income, elderly, and disabled populations. These programs are FTA Section 5316 Job Access and Reverse Commute (JARC), FTA Section 5317 New Freedom and FTA 5310 Elderly and Disabled Specialized Transportation Program. Projects to be funded through these grant programs must be derived from a Coordinated Human Services Transportation Plan. Caltrans hired Nelson\Nygaard to prepare coordinated plans for all 23 rural counties in California. Nevada County's plan was completed in March of 2008.

The coordinated plan includes a demographic profile of Nevada County as a whole and an overview of existing public transit services. The document is a great resource for information pertaining to human service transportation providers and documentation of transit needs for the disadvantaged population in Nevada County. Human service organizations and transportation providers are discussed in greater detail in Chapter 3.

Another important element of the coordinated planning effort is strategies and solutions to address service gaps and unmet transportation needs. Through a stakeholder workshop and survey process, key findings, transit service gaps, and unmet transportation needs and issues were identified:

- Key origin and destinations mentioned as part of this process that pertain to the eastern portion of the county include: medical clinics in Kings Beach and regional hospitals in Reno and Sacramento.

- Limited frequency on Truckee Transit's fixed-route, does not allow Truckee residents a large time window for medical appointments in Kings Beach.

- Underserved destinations identified included Glenshire, Ponderosa Palisades, and Tahoe Donner.

- Other special needs cited included: bilingual staff for Truckee Transit, bus schedules coordinated with school bell times, driver sensitivity training for those who deal with passengers with disabilities, programs targeting employers to encourage employees to use transit, and a larger van for the Family Resource Center in Truckee.

- Improved sidewalks and passenger amenities to assist passenger waiting or walking to the bus.

- Develop a rideshare program.

- The next step of the coordinated planning effort was to recommend and prioritize strategies:

  <u>High Priority Strategies</u>

  - **Increase Hours of Truckee Trolley** – Under this strategy JARC funds could be pursued to partially offset the cost of extending Truckee Transit summer and winter fixed-route hours until 10:00 PM. This would provide for transit service for restaurant employees in the Truckee/Kings Beach area. (Note that this strategy was recommended when Truckee Transit provided service along SR 267).

  - **Establish a Mobility Manager Position for Nevada County** – Instead of selecting a particular coordination strategy, a mobility manager could be hired to oversee coordination efforts. This position could be partially financed through FTA JARC and New Freedom grants.

- **Establish a 211 Call Center** – Expanding on the established Nevada County Department of Social Services website www.dial211.com, a 211 traveler call center could be established to assist residents with transportation needs.

- **Develop a Sidewalk and Bus Improvement Plan** – This strategy addresses the lack of transit passenger facilities and safe access to bus stops throughout the county.

Low Priority Strategies

- **Advocate for Development Approvals for Pathways to Transit** – This strategy encompasses the idea of requiring developers to fund sidewalk improvements and transit passenger amenities in new developments. This strategy is in use in the Truckee Region where the Grays Crossing development is paying a fee to the Town for transit purposes.

- **Increase Public Outreach** – This includes better coordination between Western and Eastern Nevada County services and posting schedules at bus stops.

- **Establish a Volunteer Driver Reimbursement Program in Truckee** – This strategy would reestablish the Telecare Volunteer Driver program operated several years ago. Ideally a non-profit agency or Mobility Manager should take the administrative lead. One barrier that would need to be overcome is liability insurance. A Volunteer Driver program would be eligible for FTA New Freedom grant assistance.

- **Use School Buses to Supplement Transportation** – This strategy encourages the pooling of resources to provide public transit. This would require changes to school district regulations.

- **Replace Vehicle for Family Resource Center** – The six-passenger van used to transport clients reaches capacity and requires staff to make multiple trips to the same destination. FTA 5310 funding could be pursued to replace the vehicle with a larger one, although an 11.47 percent local match would be required.

Coordinated Human Services Transportation Plan for the Lake Tahoe Basin

A coordinated plan was completed by the Tahoe Regional Planning Agency (TRPA) for the entire Tahoe Basin. Although Eastern Nevada County is not part of the study area of this plan, many Truckee residents depend on services or employment located within the Tahoe Basin. One of the main issues addressed in the Tahoe Basin Coordinated Plan was the difficulty in making cross jurisdictional trips for medical appointments.

Town of Truckee Triennial Performance Audit

The California Public Utilities Code requires that all transit operators that receive funding under Article 4 of the Transportation Development Act (TDA) commission a Transit Performance Audit (TPA) every three years. In addition to determining the Town's compliance with TDA regulations, the audit serves as a tool to review the efficiency of transit operations. The most

recent TPA for the Town of Truckee was completed by LSC Transportation Consultants in 2013. Recommendations noted in this study are as follows:

- The Town should help the transit contractor develop an accurate reporting spreadsheet format and carefully review contractor reports for errors over the next fiscal year. Town staff should also monitor completion of other performance indicators in contractor spreadsheets, such as on-time performance, road calls, complaints/compliments and trip denials.
- Transit staff should continue to be involved in the preparation of the State Controller Reports and ensure consistency between operational data in internal spreadsheets with State Controller Reports.

- Town staff should prepare reports for the Truckee Town Council at least annually.

- Full-Time Equivalent (FTE) Employee hours should be calculated and reported to the State Controller in accordance with PUC 99247 (j) and the definition in Appendix B of the Performance Audit Guidebook.

- As staff time allows, the Town should revise the fare revenue collection procedures to include the requirement of two contractor staff present when fare revenue is counted.

- Actual Town staff time spent on essential transit-related duties should be compared to the budgeted time. If actual time spent is greater than budgeted allowance, the Town should consider adjusting the percentage of Town staff time allocated for transit duties.

Town of Truckee ADA Paratransit Plan

The ADA requires public entities which operate non-commuter fixed-route passenger transportation services to provide complementary paratransit service for individuals unable to use the fixed-route system. The regulations further require that the entity submit a plan indicating how and when complementary paratransit service requirements will be met. The Town of Truckee recently adopted their Paratransit plan in January of 2008. A substantial portion of the document reviews Truckee Transit's compliance with ADA regulations. Although the service is available to the general public, DAR also serves as the Town of Truckee's complementary paratransit service. The following recommendations were made in order to comply with ADA regulations:

- Provide paratransit service on Donner Summit during the winter – The Truckee Transit winter fixed-route now deviates within three-quarters of a mile to pick-up disabled passengers.

- Extend paratransit service hours during the winter – Truckee DAR is not available until 9:00 AM on weekends. As the fixed-route begins service around 7:00 AM, paratransit service is not in compliance with ADA regulations.

- Truckee Transit should establish a formal ADA eligibility determination process – This recommendation has not yet been implemented.

- Implement DAR Performance Monitoring – There was anecdotal evidence from DAR users and human service organizations in Truckee that DAR has poor on-time performance. The paratransit plan recommended that the Truckee Transit contractor collect and submit the number of late pick-ups (greater than 30 minutes) to Town staff as part of the monthly reporting process. On-time performance data is not currently collected or reviewed by contractor or Town staff. This issue will be reviewed as part of the Eastern Nevada County planning process.

As a result of input provided by DAR passengers and human service agencies at the public workshop, the following alternatives were briefly reviewed as part of the paratransit planning process:

- *Extend DAR service hours and days* – A review of DAR ridership demonstrated that there is not significant demand for DAR service on weekends and in the early evening hours

- *DAR service during the lunch hour* – This alternative was reviewed in response to public comment. As DAR ridership is highest during the middle of the day, there appears to be sufficient demand to provide continuous service throughout the day.

- *DAR service on non-winter Sundays* – The analysis concluded that there is not significant ridership to justify non-winter Sunday service. However, there appears to be opportunities for coordination with the Parks and Recreation Department to provide transportation to community events. The Town recently donated a retired DAR vehicle to the Parks and Recreation District.

- *Non-Emergency Medical Transportation* – A transit need which has continually come up in public meetings and which was discussed in the paratransit plan is the need for transportation to out-of-county medical appointments such as dialysis. There is also only limited transportation to the VA Hospital in Reno for veterans. The feasibility of establishing some form of non-emergency medical transportation for those in need will be reviewed in the Eastern Nevada County Transit Plan.

Truckee Mobility Needs Study

In 2011, LSC Transportation Consultants was retained to complete a mobility needs study for the Town of Truckee. This study identified where transportation services may be lacking in the community, and how resident's and visitor's mobility needs may be better addressed. While this study included traditional public transit bus and paratransit services, it also considered other strategies to expand mobility for Truckee residents and employees. The plan incorporated the following recommendations into the Mobility Plan:

- *Implement Scheduled Dial-A-Ride to Glenshire* – This recommendation was based on previous plans that identified this as a need in the Town. While the Dial-A-Ride technically was providing scheduled trips to Glenshire, this was not printed on a schedule or well-advertised. As such, it was recommended that this be implemented and promoted to the community.

- *Continue Support of the Dial-A-Ride Services* – Despite recent declines in DAR ridership, these passengers make up almost 50 percent of the total system ridership. As such, the program is an imperative component to a well-rounded mobility plan for the Town. This recommendation includes prioritizing funding for Dial-A-Ride in order to continue to meet the needs of the residents, including maintaining current service levels and / or expanding service as needs increase in the future.

- *Implement a Commute Rideshare Program* – Commute needs were identified for both workers traveling between Truckee and the North Lake Tahoe and Reno areas. To provide additional options for commuting, the plan recommended that the Town of Truckee work with existing rideshare programs (such as the Washoe RTC) to encourage the use of the programs, as well as develop a similar one for the North Lake Tahoe area.

- *Implement a Transportation Reimbursement / Volunteer Driver Program* – Non-emergency medical transportation needs are some of the most frequent issues faces by residents of Truckee. Due to limited medical services in the study area, a volunteer driver program would provide access to necessary medical appointments that are located outside of the immediate region, such as Reno or Sacramento. Further, this service would allow for increased access to social service programs that are also located outside of the study area.

- *Encourage Ridesharing at Sierra College* - The needs assessment section of this studied identified unmet mobility needs at Sierra College during evening class times, specifically that there were no transit or alternative transportation options available to students. The plan included a recommendation that Sierra College implement an organized ridesharing program to provide additional options to students not only when transit does not serve the college, but throughout the day as well.

- *Develop a Mobility Management Center* - One of the greatest needs identified during the study process was the need for better coordination amongst transportation programs, as well as increased education regarding what services were offered. Offering a comprehensive database of transportation choices for residents and visitors would prove extremely beneficial. This is best addressed on a regional level, extending beyond the Town.

- *Allocate CTS Funds to the Town of Truckee* - Additional funding to the Town of Truckee would provide more opportunities for implementation of new programs or to continue existing services. To do this, it is recommended that the Nevada County Transportation Commission begin allocating CTS funding to the Town of Truckee, using a population-based apportionment formula.

- *Establish a Social Service Mobility Subcommittee of the TNT / TMA* - To further ensure coordination of transportation services to populations that rely on it the most, the TNT / TMA should establish a social service mobility subcommittee, which would provide a voice for low income, disabled and senior residents.

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BACKGROUND

Public transit service has been provided in the area since December 1991, with Truckee serving as the hub of transportation service. Initially, public transit service was provided to ski areas on the SR 89 corridor between Truckee and Tahoe City on a limited schedule. Prior to 1993, High Sierra Senior Services in conjunction with Tahoe Forest Hospital operated a deviated fixed-route service for seniors and disabled residents. The Town of Truckee began operating transit services after its incorporation in March 1993, at which time it began contraction with a private firm for transit management, supervision, vehicle maintenance, and operations.

Today, a variety of services are operated in and around the Town of Truckee, to Donner Summit, and to the North Shore of Lake Tahoe. Through a contractor, the Town of Truckee provides DAR and fixed-route services on a year-round basis within the Town, and fixed-route service on a winter seasonal basis to Donner Summit to the west. The TART program operated by Placer County connects Truckee to Tahoe City to the south via SR 89 year-round, as well as winter service between Truckee, Northstar, Kings Beach, and Crystal Bay via SR 267, with partial support provided by the Town of Truckee. Other transportation service providers also serve the area, including the Tahoe Forest Hospital, Greyhound, and Amtrak.

TRUCKEE TRANSIT

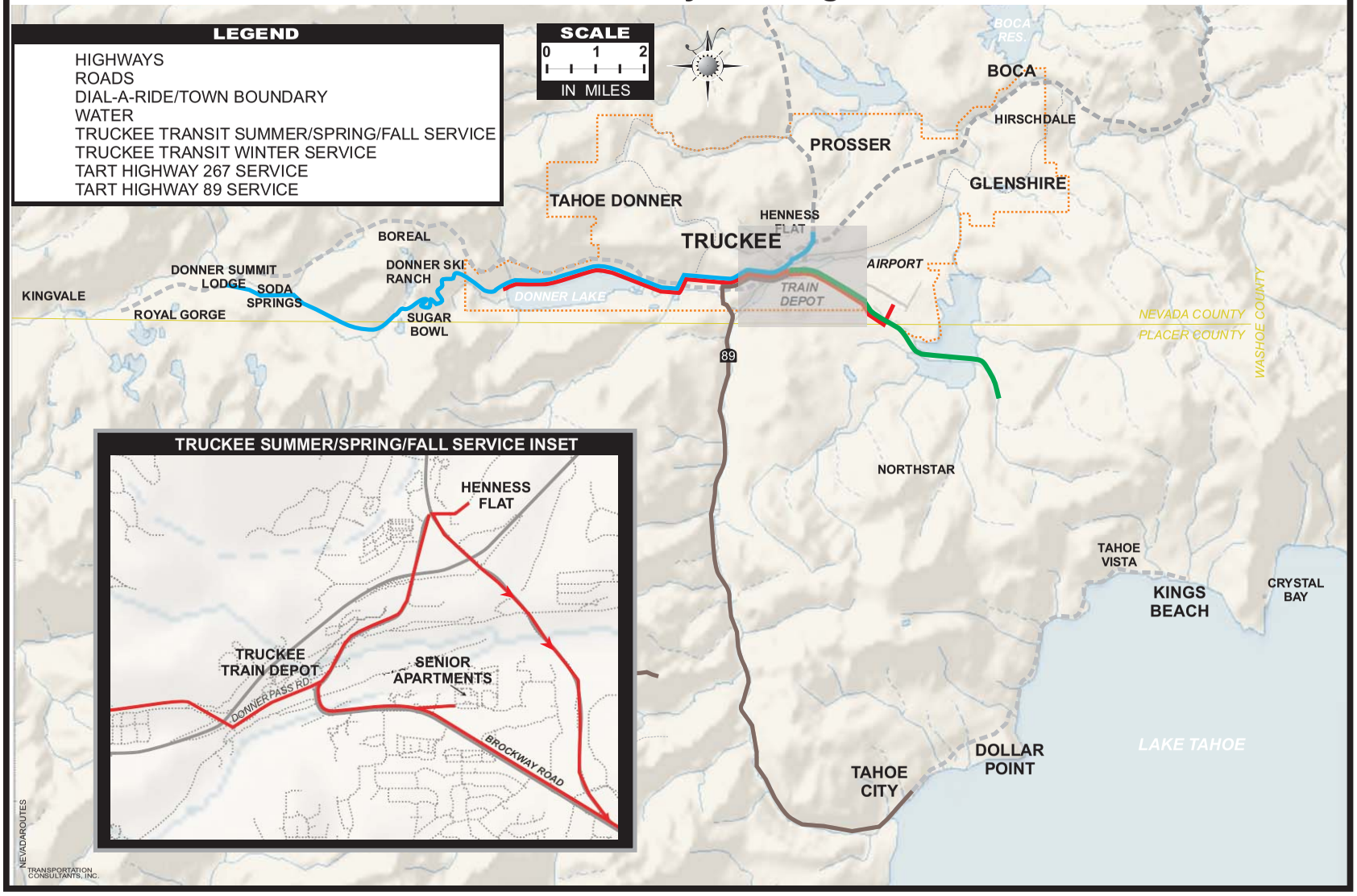
Winter Fixed-Route

In partnership with several private organizations, Truckee Transit operates a skier shuttle route from approximately December 20 to March 31 (2013 schedule) from the employee housing facility at Henness Flat in the Gray's Crossing development to the Boreal Ridge Ski Resort at Donner Summit. Figure 7 displays existing public transit routes in Eastern Nevada County. Major bus stops are located at the Train Depot (where connections are made with TART), Tahoe Forest Hospital, Gateway Shopping Center, Tri-Counties Bank Plaza, Donner Lake, Donner Ski Ranch, Sugar Bowl Ski Resort and Boreal Ridge Ski Resort. The winter route recently incorporated the Senior Apartments to the fixed route, which provides some relief to the Dial-A-Ride service.

Transit service is provided seven days a week, with service beginning at 6:00 AM and ending at roughly 6:45 PM. Buses leave Henness Flats at 6:00 AM, 6:45 AM, 8:52 AM, 11:34 AM (with limited service only the Truckee Train Depot), 2:45 PM and 4:45 PM. Eastbound buses depart Boreal Ridge at 7:30 AM, 8:15 AM, 10:22 AM, 4:05 PM and 6:15 PM. The last run of the day from Boreal Ridge does not follow the regular schedule, but rather travels down I-80 and drops off passengers along Donner Pass Road between West End Donner Lake and Henness Flats. Additionally, there is no service provided between 11:47 AM and 2:45 PM to allow for a driver break.

FIGURE 7

Eastern Nevada County Existing Bus Routes



Spring/Summer/Fall Fixed-Route

During the non-winter months (approximately April through mid-December), the Town of Truckee operates a fixed-route between Henness Flats and West End Beach at Donner Lake. Major stops include the Truckee-Tahoe Airport, Tahoe Forest Hospital, Truckee Train Depot and Gateway Center. The route operates on hourly headways Monday through Saturday between 9:05 AM and 4:05 PM, with no service during the 1:00 PM hour to allow for driver breaks.

Truckee Dial-A-Ride

Demand response curb-to-curb DAR service is provided within the Town limits in order to provide complementary paratransit service, as well as to serve outlying neighborhoods not served by the fixed-routes. The service area includes all Truckee residential neighborhoods and commercial districts such as Tahoe Donner, Prosser, Glenshire, Sierra Meadows, and downtown Truckee. For distant neighborhoods such as Glenshire, which is significantly beyond the three-quarters of a mile requirement for ADA service, DAR buses make trips to the area twice per day, at 9:30 AM and 2:30 PM. DAR service is available for both the general public and ADA-eligible individuals. Service is available from 8:00 AM to 5:00 PM on Monday through Friday, and from 9:00 AM to 4:00 PM on Saturday; there is no service on Sunday. For all trips, a twenty-four hour advance notice is requested.

Subscription Service

Truckee DAR currently provides subscription (standing order) transportation services to the following organizations:

- Choices
- TTUSD Special Education program
- Alta California Regional Center

Subscription services are also provided to individuals. This type of reservation accounts for nearly 90 percent of DAR trips. In fact, most ADA type trips (wheelchair and disabled passenger-trips) are booked one month in advance. Advance reservations facilitate scheduling for human service agencies, disabled individuals, and contractor staff.

Fares

The winter fixed-route service is free of charge (as private funding replaces passenger fare revenue). In other seasons, the one-way fare on Truckee Transit fixed-route is $2.50 for adults, $1.50 for children ages 3 to 12, and $1.00 for seniors and disabled persons; children under the age of 3 are free. An all-day pass is $5.00 for adults, $3.00 for children under 12 and $2.00 for seniors and disabled persons.

The general public one-way fare on DAR is $6.00. The one-way fare for seniors / disabled passengers and children under 12 years old is $2.00.

Vehicles and Facilities

As shown in Table 8, the Truckee Transit vehicle fleet consists of five vehicles. The two 32-passenger buses are used for the fixed route, while the smaller 10- and 12-passenger vehicles are used for DAR. The average age of the fleet is about 4.8 years old and the average mileage for the fleet is 106,000. The useful life for transit vehicles is 5 years or 150,000 miles, as defined by Caltrans. A review of the mileage and age of the Truckee Transit fleet shows that one vehicle has already reached is useful life, while another will need to be replaced by 2014. The remaining vehicles will likely need to be replaced in 2016 and 2018 (two vehicles).

TABLE 8: Eastern Nevada County Transit Vehicle Fleet

Vehicle Type	Passenger Capacity	Wheelchair Positions	Year	Mileage	Use
Chevy Aerolite	10	2	2007	142,973	Dial-A-Ride
Chevy Aerolite	10	2	2007	150,485	Dial-A-Ride
Chevy Aero Elite	32	1 or 2	2009	91,721	Shuttle
Chevy Aero Elite	32	1 or 2	2009	73,161	Backup
Chevy Aero Elite	12	2	2009	71,714	Backup

Source: Town of Truckee

The Town of Truckee transit system includes eight bus shelter locations:

- Senior Apartments
- Hampton Inn (not Town maintained)
- Henness Flats Apartments
- Brockway Road near roundabout (eastbound)
- Regional Park (westbound)
- Bank of America (eastbound)
- Gateway Center (westbound)
- West End Donner Lake

The Truckee Train Depot offers a waiting area for transit passengers that is heated and has restrooms available. There are also eight stops with bus benches:

- Donner Pines Market
- Outlet Mall (eastbound)
- Northwoods and Donner Pass Road (eastbound)
- Northwoods and Donner Pass Road (westbound)
- Westgate Plaza
- Dairy Queen
- Tahoe Forest Hospital
- Recreation Center

Both Truckee DAR and the Truckee Transit fixed route are operated under contract by El Camino Trailways. The contractor reports to the Assistant to the Town Manager, who in turn reports to the Town Manager. For Truckee Transit services, El Camino Trailways has a

dedicated staff consisting of one Contract / Project Manager, one dispatcher and drivers. All maintenance services are provided by Town of Truckee. Town transit vehicles are stored at the Town of Truckee Corporation Yard located at 10969 Stevens Lane off Donner Pass Road. Town Public Works staff performs all vehicle maintenance.

TAHOE AREA REGIONAL TRANSIT

Public transit services in the North Tahoe region (in both California and Nevada) are provided by the Tahoe Area Regional Transit (TART) services operated by the Placer County Department of Public Works. This program also provides service to Truckee.

TART operates hourly route service between Tahoe City, Squaw Valley and Truckee along State Route (SR) 89 with additional runs during the winter and summer months. Service is offered generally between 6:30 AM and 6:30 PM during the winter and summer months between Tahoe City and Truckee. Bus service is provided on SR 267 between Crystal Bay and Truckee only from 7:00 AM to 5:50 PM. No service is provided to Truckee along SR 267 during the shoulder or summer seasons (although TART operates a summer service between Northstar and Crystal Bay).

Major stops along the Tahoe City to Truckee route include Alpine Meadows ski area, Squaw Valley USA, Bank of America, Tahoe Forest Hospital and the Truckee Train Depot. On the SR 267 route, stops include the Larkspur Inn, Hampton Inn, Truckee Airport, Northstar Village and Sawmill Heights (an affordable housing development in Northstar).

TART is operated by the Placer County Department of Public Works. The TART operations and maintenance facility is located at 970 Cabin Creek Road, approximately two miles south of Truckee along the SR 89 corridor. This facility includes a Compressed Natural Gas (CNG) fueling station. TART maintains a fleet of 14 vehicles, including a spare bus from the Placer County Transit fleet. Two of the vehicles are stationed in Auburn. The TART fleet includes 8 CNG buses. The fare is currently $1.75 per one-way trip for the general public, and $0.85 per one-way trip for seniors, persons with disabilities and children aged 12 years and under. Various multi-ride passes are also available.

Placer County Complementary Paratransit Service

Complementary Paratransit Service (CPS) for TART is provided in neighboring Placer County by Tahoe Blue Taxi under a contract with the Placer County Department of Public Works. This service is provided from 6:00 AM to 6:30 PM seven days a week (excluding Christmas Day), for trips with origins and destinations in an area defined as within three-quarters of a mile of all TART routes (including those areas within the Town of Truckee). Eligible riders are required to request service 24 hours in advance, and service must be provided within 60 minutes of the requested ride time. The contractor operates a fleet of three vehicles and is required to provide a wheelchair-accessible vehicle. Riders are required to complete and sign a trip voucher, which is then submitted monthly by the contractor for payment. Vouchers are sold to passengers at a variety of locations around the service area at a fare of $3.00 per one-way trip. Personal care attendants are allowed to ride free of charge.

RIDERSHIP

Historical Ridership

Ridership for transit services in Eastern Nevada County over the last three full fiscal years is presented in Table 9. In the most recent year, TART SR 89 service provided the greatest number of one-way passenger-trips during the year (82,442), followed by the TART SR 267 service (43,873) and the Truckee Fixed-Route (15,709). Overall ridership on TART and Truckee Transit combined has increased by nearly 5.7 percent over the three fiscal years from 145,299 to 153,548 one-way passenger trips. Transit services in the region have varied over time. Table 9 shows that the Truckee Transit fixed-route had a 17.4 percent increase in ridership in Fiscal Year 2011-12, while Dial-A-Ride has experienced slight decreases (-5.7 percent in FY 2010-11 and -0.4 percent in FY 2011-12). The TART services have also varied, with the SR 267 route increases roughly 31 percent over the three fiscal years, while the SR 89 route has decreased.

TABLE 9: Eastern Nevada County Historical Ridership
Fiscal Years 2009 - 2010 through 2011 - 2012

	Truckee Transit				TART					
	Fixed Route		DAR		267 Route		89 Route		Total	
Fiscal Year	#	% Change	#	% Change	#	% Change	#	% Change	#	% Change
2009 - 2010	12,523	--	12,221	--	33,408	--	87,147	--	**145,299**	--
2010 - 2011	13,380	6.8%	11,565	-5.7%	42,909	22.1%	90,890	4.1%	**158,744**	**8.5%**
2011 - 2012	15,709	17.4%	11,524	-0.4%	41,043	-4.5%	82,442	-10.2%	**150,718**	**-5.3%**
Total Change 2009-10 to 2011-12	*3,186*	*25.4%*	*-697*	*-5.7%*	*7,635*	*22.9%*	*-4,705*	*-5.4%*	***5,419***	***3.7%***

Source: Town of Truckee and TART, 2013

Ridership by Month

Ridership data by month and service for Fiscal Year 2011-12 is presented in Table 10, while Figure 8 below presents this information graphically. As shown, ridership varies dramatically by season, particularly on the Truckee Transit Fixed Route. On this service during the winter months (December through March), 93,893 one-way passenger-trips were provided, which equates to 61 percent of total annual passenger-trips. The month of January had the greatest number of passenger-trips for the majority of Eastern Nevada County transit services, followed very closely by February.

The Dial-A-Ride service has relatively consistent levels of ridership throughout the year, as shown in Table 10. Unlike the fixed-route services, the winter season months do not generate the greatest ridership. Conversely, the months with the highest passenger-trips are scattered throughout the year, with March producing the most trips (1,135), followed by September (1,047), May (1,005) and August (1,004).

TABLE 10: Eastern Nevada County Passengers by Month

Fiscal Year 2011-2012

Month	Truckee Transit Fixed Route	Truckee Transit DAR	TART 89 Service	TART 267 Service (1)	Total	Percent of Total
July	518	776	6,827	--	**8,121**	5.4%
August	589	1,004	7,178	--	**8,771**	5.8%
September	404	1,047	5,124	--	**6,575**	4.4%
October	428	908	4,490	--	**5,826**	3.9%
November	319	908	4,117	--	**5,344**	3.5%
December	2,411	850	8,695	5,115	**17,071**	11.3%
January	3,436	974	10,577	11,872	**26,859**	17.8%
February	3,182	986	10,216	12,257	**26,641**	17.7%
March	2,493	1,135	9,635	10,059	**23,322**	15.5%
April	648	981	7,035	1,740	**10,404**	6.9%
May	468	1,005	4,012	--	**5,485**	3.6%
June	813	950	4,536	--	**6,299**	4.2%
Total	**15,709**	**11,524**	**82,442**	**41,043**	**150,718**	
% Winter (December - March)	62%	93,893				
% Summer (June - August)	15%	23,191				
% Shoulder (April - May, Sept - Nov)	20%	33,634				

Source: Town of Truckee, 2013; Placer County Transit, 2013

Note 1: TART 267 summer service does not serve theTown of Truckee.

Ridership by Day of Week

Ridership by day of the week for Truckee Transit is presented in Tables 11 – 13, with data for winter, summer and shoulder seasons. As shown in Table 11, summer average daily ridership is 55.5 one-way passenger trips systemwide, with Friday representing the day of the week with the highest proportion of ridership. An average of about 147.6 one-way passenger trips is carried on a busy winter day, with Saturday being the peak day (Table 12). Interestingly, during the shoulder season, average daily ridership is roughly 59.5 one-way passenger trips, resulting in more daily ridership than the summer season. In the shoulder season, Friday and Monday have the highest ridership (Table 13).

Ridership by Passenger-Type

Table 14 presents ridership on Truckee Transit's fixed-routes and DAR for Fiscal Year 2011-12 by passenger-type. This data reflects the stark difference between the types of passengers on the two services. On the fixed-route, roughly 91 percent of passengers are general public, while on DAR this figure is only 7 percent. DAR ridership is largely senior or disabled (totaling 85 percent), compared to only 7.5 percent on fixed route. Overall, general public passengers account for nearly 54 percent of all passenger trips, while senior/disabled passengers totaled 42 percent. The remaining passengers are "free" passengers, such as children under the age of 3. More detailed data by passenger type for Dial-A-Ride is presented below.

FIGURE 8: Eastern Nevada County FY 2011-12
Ridership by Month

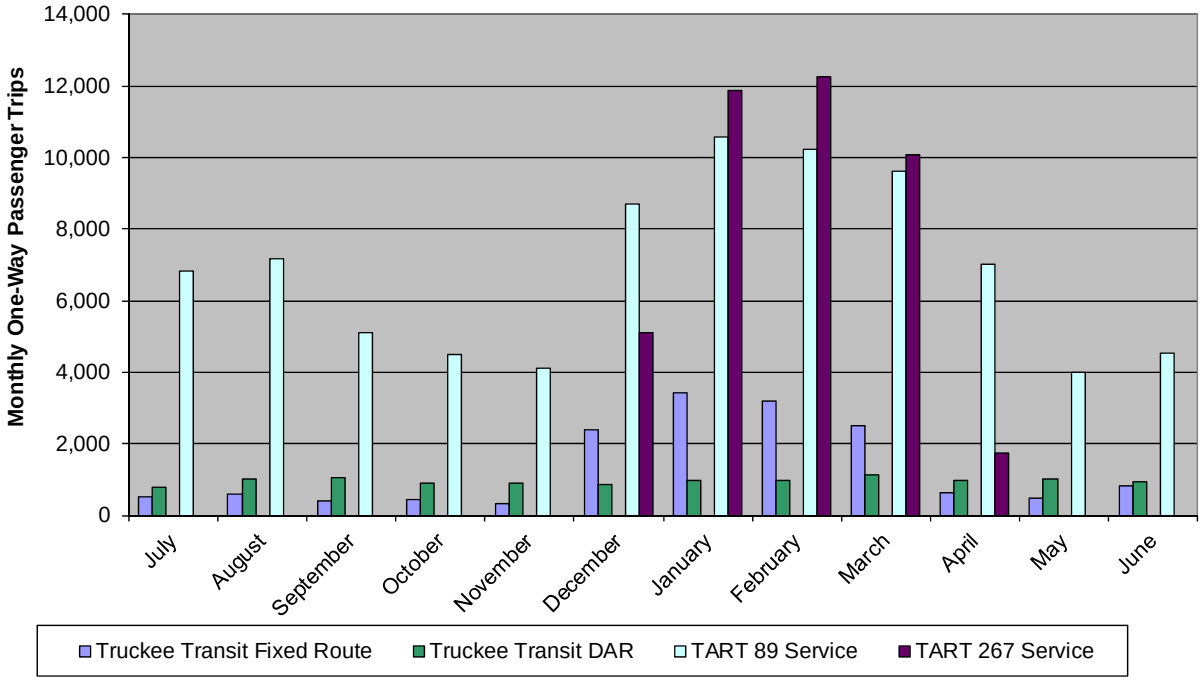


TABLE 11: Truckee Transit Passengers by Day of Week - Summer

Week of August 8 - 14, 2011

Day of Week	DAR	Fixed Route	Total Daily Ridership	Proportion of Weekly Total
Monday	28	10	38	11.4%
Tuesday	34	25	59	17.7%
Wednesday	37	23	60	18.0%
Thursday	43	12	55	16.5%
Friday	39	27	66	19.8%
Saturday	20	35	55	16.5%
Total Weekly Ridership	**201**	**132**	**333**	
Average	**33.5**	**22.0**	**55.5**	

Source: Town of Truckee, 2013

TABLE 12: Truckee Transit Passengers by Day of Week - Winter

Week of February 5 - 11, 2012

Day of Week	DAR	Fixed Route	Total Daily Ridership	Proportion of Weekly Total
Sunday	9	73	82	7.9%
Monday	33	103	136	13.2%
Tuesday	41	73	114	11.0%
Wednesday	51	78	129	12.5%
Thursday	43	151	194	18.8%
Friday	47	126	173	16.7%
Saturday	21	184	205	19.8%
Total Weekly Ridership	**245**	**788**	**1,033**	
Average	**35.0**	**112.6**	**147.6**	

Source: Town of Truckee, 2013

TABLE 13: Truckee Transit Passengers by Day of Week - Offseason

Week of October 9 - 15, 2011

Day of Week	DAR	Fixed Route	Total Daily Ridership	Proportion of Weekly Total
Monday	44	32	76	21.3%
Tuesday	38	9	47	13.2%
Wednesday	34	18	52	14.6%
Thursday	43	19	62	17.4%
Friday	49	29	78	21.8%
Saturday	27	15	42	11.8%
Total Weekly Ridership	**235**	**122**	**357**	
Average	**39.2**	**20.3**	**59.5**	

Source: Town of Truckee.

TABLE 14: Truckee Transit Ridership by Passenger

Fiscal Year 2011-2012

Fare Type	Fixed Route #	Fixed Route %	Dial-A-Ride #	Dial-A-Ride %	Total #	Total %
General Public	14,251	90.8%	867	6.9%	**15,118**	**53.6%**
Senior / Disabled	1,178	7.5%	10,619	85.0%	**11,797**	**41.8%**
Free	269	1.7%	1,005	8.0%	**1,274**	**4.5%**
Total	**15,698**		**12,491**		**28,189**	

Note: Children over the age of 3 are included in the General Public category.

Source: Truckee Transit, 2013

DETAILED PASSENGER ACTIVITY

Truckee Transit Fixed-Route

Passenger Survey – Boarding Activity by Stop

As part of the transit planning effort, LSC Transportation Consultants, Inc performed boarding and alighting surveys of the Truckee Transit winter fixed-route on February 6 and 7, 2013. Table 15 presents passenger boarding activity by stop. According to the survey:

- The greatest number of boardings occurred at the Boreal Ridge Ski Resort stop (14 boardings), followed by the Donner Pass Road and South Shore Drive (12 boardings), the Mt Judah Day Lodge (8 boardings) and the Henness Flat Apartments (8 boardings).

- The greatest number of alightings were recorded at Boreal Ridge Ski Resort (17 alightings) and the Mt Judah Day Lodge (9 alightings), followed by the Donner Pass Road at South Shore Drive stop (7 alightings).

- The boarding and alighting survey data demonstrates that many passengers ride the winter fixed-route to work or recreation on Donner Summit. A good example of this is the fact that at many locations – Sugar Bowl Academy, Mt Judah Day Lodge, Donner Ski Ranch, Soda Spring Ski Resort and Boreal Ridge Ski Resort – had more passengers getting off the bus than on.

- The 9:00 AM hour was the peak boarding time on the day of the survey with 30 passengers boarding and 25 passengers getting off the bus. The 4:00 PM hour follows with 26 passenger boardings and 11 alightings.

TABLE 15: Truckee Transit Fixed Route Winter Passenger Activity By Stop

February 6th and 7th, 2013

Route Direction Served	Stop	Passenger Activity			% of Total Passenger Activity
		On	Off	*Total*	
WB / EB	Henness Rd @ Henness Flat Apt	8	0	8	4.8%
EB	Truckee Community Recreation Center	0	0	0	0.0%
WB	Brockway Rd @ Larkspur	0	2	2	1.2%
WB	Brockway Rd @ Reynold Way	0	0	0	0.0%
WB	Estates Dr @ Senior Apts	3	0	3	1.8%
WB	Brockway Rd @ Regional Park	0	0	0	0.0%
WB / EB	Truckee Train Depot	5	5	10	6.0%
WB / EB	Tahoe Forest Hospital	0	1	1	0.6%
EB	Donner Pass Rd @ Bank of America	0	3	3	1.8%
WB	Gateway Center (Safeway)	6	2	8	4.8%
WB / EB	Deerfield Dr. @ Crossroads Center	0	5	5	3.0%
WB / EB	Donner Pass Rd @ 7-11	4	5	9	5.4%
WB / EB	Donner Pass Rd @ School Dist Bldg	1	1	2	1.2%
WB / EB	Donner Pass Rd @ Northwoods Blvd	4	2	6	3.6%
WB	Tric-Counties Bank Plaza	1	0	1	0.6%
WB / EB	Truckee Donner Lodge	0	0	0	0.0%
WB / EB	Sticks Market	3	2	5	3.0%
WB / EB	Donner Pass Rd @ South Shore Dr	12	7	19	11.3%
WB / EB	Sugar Bowl Academy	3	5	8	4.8%
WB / EB	Mt Judah Day Lodge	8	9	17	10.1%
WB / EB	Donner Ski Ranch	2	3	5	3.0%
WB / EB	Sugar Bowl Gondola	2	1	3	1.8%
WB	Tri Lodges	0	1	1	0.6%
WB / EB	Donner Pass Rd @ Soda Springs Rd	2	1	3	1.8%
WB / EB	Soda Springs Ski Resort	1	5	6	3.6%
WB / EB	Pahatsi Rd @ Yuba Dr	2	3	5	3.0%
WB / EB	Royal Gorge XC Ski Resort	0	0	0	0.0%
WB / EB	Soda Springs Rd @ Donner Pass Rd	0	0	0	0.0%
WB / EB	Soda Springs General Store	2	0	2	1.2%
WB / EB	Donner Summit Lodge	2	3	5	3.0%
WB / EB	Boreal Ridge Ski Resort	14	17	31	18.5%
		85	*83*	*168*	100.0%

Source: LSC Transportation Consultants, Inc.

Truckee Transit Dial-A-Ride Passenger Activity

Truckee Transit daily DAR data was reviewed for the month of February 2012 in order to determine DAR passenger activity by passenger-type. As shown in Table 16, an average of 178.6 daily boardings occurred during the week (Monday - Friday). DAR passenger activity is lower over the weekend, particularly Sundays, when only one vehicle is scheduled. Overall,

TABLE 16: Truckee DAR Boardings by Passenger Type

Average Boardings - February 2012

	Alta	Special Ed	General Public	Disabled Non-Wheelchair	Wheechair	Senior	Daily Total
Monday	36.0	31.0	6.0	33.0	3.0	27.0	**136.0**
Tuesday	51.0	7.0	21.0	37.0	13.0	43.0	**172.0**
Wednesday	64.0	2.0	13.0	71.0	4.0	47.0	**201.0**
Thursday	56.0	10.0	18.0	53.0	3.0	39.0	**179.0**
Friday	50.0	32.0	9.0	51.0	2.0	61.0	**205.0**
Saturday	5.0	0.0	0.0	13.0	4.0	50.0	**72.0**
Sunday	0.0	0.0	9.0	1.0	0.0	11.0	**21.0**
Weekday Average	**51.4**	**16.4**	**13.4**	**49.0**	**5.0**	**43.4**	**178.6**
% of Average	**28.8%**	**9.2%**	**7.5%**	**27.4%**	**2.8%**	**24.3%**	

Note: Disabled passengers are counted independently of senior passengers.

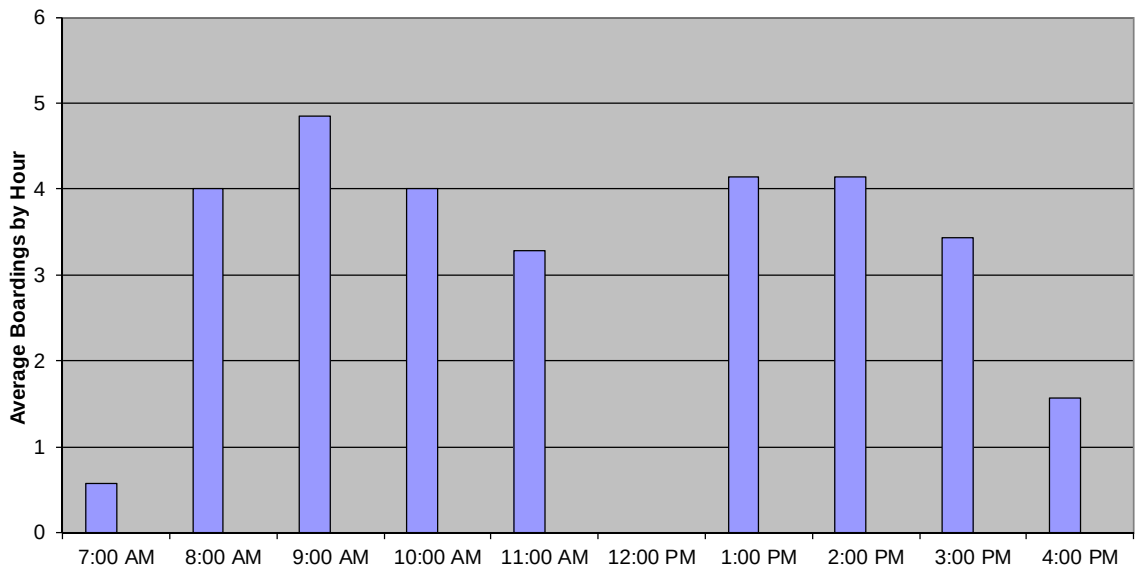
Source: Truckee Transit, 2013

there is an average of 46.5 daily boardings over the weekend. Note that Truckee Transit no longer provides DAR service on Sunday. Alta California Regional Centers account for 28.8 percent of the total weekday boardings. Disabled non-wheelchair passengers make up the next largest group of riders at 27.4 percent of average daily ridership, followed by the senior population (24.3 percent), Special Education program passengers (9.2) percent and the general public (7.5 percent). Approximately 2.8 percent of DAR passengers were wheelchair users. If all passengers are divided into two categories, consisting of special needs (seniors, disabled, Alta, Special Ed) and general public, the special needs passengers account for 92.2 percent of average daily ridership for the total week including weekends.

Figure 9 presents DAR boardings by time of day obtained from DAR driver run sheets. The data represents the average boardings by hour for the week of August 11, 2012. The largest number of boardings occurred during the 9:00 AM hour, with an average of 4.8 boardings during that time. There was a bit of an afternoon rush during the 1:00 PM and 2:00 PM hour, with 4.1 average boardings occurring during each of the hours. The 12:00 PM hour had no boardings, as there is no service during this time to allow for driver lunch breaks. As of fall 2012, lunch hours are now staggered so there is service during the 12:00 PM hour.

Data was also reviewed for one week each during February, August and October 2012. The information shows that trips with either an origin or destination at the Senior Apartments represent the greatest number of trips, with an average of 43.6 percent. The most common trip patterns with respect to the Senior Apartments are to Choices, the Recreation Center, Tahoe Forest Hospital and associated medical buildings, and for shopping activities at Safeway, Save Mart, Rite Aid and CVS. Persons traveling to / from the Choices program represent an average of 19.3 percent of the trips taken, while 4.3 percent are traveling to / from the Extended Care Center (ECC) at Tahoe Forest Hospital. Other trip patterns do exist, however these are the most prevalent found in the data.

FIGURE 9: Truckee DAR Boardings by Hour
Week of August 11, 2012



Truckee Transit On-Board Passenger Survey

In order to gain a better understanding of ridership and passenger activity, on-board passenger surveys were conducted on both Truckee Transit DAR buses and the winter fixed-route from February 6 – 7, 2013. Surveyors passed out passenger questionnaires to identify travel characteristics and opinions on the service. A total of 33 surveys were completed on the fixed-route, which represents approximately 39 percent of the total boardings for the two days observed. Unfortunately, only two DAR surveys were completed. However, many of the passengers on DAR had filled out surveys for the fixed-route, indicating that there is overlap in ridership between the two services. The following is a summary of the main findings:

Winter Fixed-Route

- The majority of survey responses indicate that the service is used by both employees and users of the ski areas at Donner Summit. Approximately 64 percent of the responses had a trip end or beginning at one of the ski areas. Additionally, 36 percent used the service for work, and another 30 percent for recreational / social purposes.

- Approximately 40 percent of respondents are employed full-time, while another 17 percent are work part-time. Further, 55 percent say that they use the service 4 to 5 days per week. This information indicates that many passengers rely on the service for work purposes.

- Twenty-one percent (21 percent) of respondents said that this was their first time using the service, while another 52 percent have been using the service under 6 months and 24 percent have been using it for over a year.

- Roughly three-quarters of respondents stated that they were transit dependent and did not have a vehicle available to them. Along the same lines, only 6 percent drove themselves to the bus stop. Most walked (70 percent), transferred from a TART route (15 percent) or were dropped off (9 percent).

- Approximately 96 percent of respondents did not have a disability, while 11 percent of respondents were considered seniors. This may indicate that with the fixed-route serving the Senior Apartments, more residents are opting for fixed-route than DAR at certain times.

- Respondents were asked to rank on a scale of 1 to 5 (1 = poor; 5 = excellent) several transit service elements:

  - Driver Courtesy – 4.8 average ranking
  - On-time Performance – 4. 2 average ranking
  - Area Served – 4.0 average ranking
  - Bus Comfort – 4.5 average ranking
  - Bus Cleanliness – 4.7 average ranking
  - Printed Information Materials – 4.6 average ranking
  - Telephone and Information Services – 4.2 average ranking
  - Bus Stops and Shelters – 4.3 average ranking

- Overall, 92 percent of respondents rated transit service as “good” or “excellent” while 4 percent rated the service as fair and another 4 percent rated the service as poor. This reflects very well on passenger’s satisfaction with the existing service.

- Respondents were provided a list of possible service improvements and were asked to choose the single service improvement that is the most important to them. “Increased Frequency” (54 percent) and “Later Weekday Service” (21 percent) were the most common answers.

TART

Tables 17 and 18 present a sample of boarding and alighting data for FY 2010-11 runs on the TART 89 and 267 routes, as average number of passengers over a sample period. This data reflects the average passenger activity for randomly selected runs throughout the year. Table 17 demonstrates that the most common trip pattern on the TART SR 89 route is between Tahoe City and Squaw Valley. Overall, approximately 27 percent of total SR 89 route ridership is bound to/from Truckee, with the remainder traveling between Squaw Valley and Tahoe City. It appears from the tables that there are significantly fewer boardings on Saturdays and Sundays than during the remainder of the week .While this is not the case in winter, during the remainder of the year ridership is lower on weekends than on weekdays.

TABLE 17: SR 89 TART Service Passengers by Stop

	Weekday			*Saturday*			*Sunday*		
	On	Off	Total Onboard	On	Off	Total Onboard	On	Off	Total Onboard
To Truckee									
Hwy. 28 @ Hwy. 89 - Tahoe City "wye" (SHELTER)	16.3	0.0	16.3	23.3	0.0	23.3	7.3	0.0	7.3
Hwy. 89 @ Alpine Meadows Rd. - retaining wall	0.2	0.8	15.7	0.5	0.5	23.3	0.0	1.3	6.0
Squaw Valley Rd. @ 7-11 Store driveway (SHELTER)	0.0	0.2	15.5	0.0	0.0	23.3	0.0	0.0	6.0
Squaw Valley Rd. & Squaw Creek Rd.	0.0	0.2	15.3	0.0	0.0	23.3	0.0	0.0	6.0
Squaw Valley Rd. @ Post Office	0.0	0.6	14.8	0.0	0.3	23.0	0.8	0.5	6.3
Squaw Valley Rd. @ Clocktower Bldg.	0.3	6.0	9.0	0.3	12.0	11.3	0.0	1.8	4.5
Squaw parking lot @ Village (SHELTER In Building)	0.4	6.1	3.3	0.0	6.5	4.8	0.3	1.5	3.3
Resort At Squaw Creek Rear Entrance	0.4	1.1	2.7	0.0	2.0	2.8	0.0	1.5	1.8
Squaw Valley Rd. @ Squaw Creek Rd. (SHELTER)	0.1	0.3	2.4	0.0	0.0	2.8	0.3	0.8	1.3
Squaw Valley Rd. @ new park near entrance	0.1	0.0	2.5	0.3	0.0	3.0	0.3	0.3	1.3
Hwy. 89 @ West River St.	0.0	0.3	2.3	0.0	0.3	2.8	0.0	0.3	1.0
Hwy 89 @ Deerfield (College)	0.0	0.2	2.1	0.0	0.3	2.5	0.0	0.0	1.0
Hwy. 89 @ CHP Office	0.0	0.3	1.8	0.0	0.3	2.3	0.0	0.0	1.0
Donner Pass Rd. across from Gateway (SHELTER)	0.2	0.4	1.5	0.0	0.5	1.8	0.0	0.0	1.0
Donner Pass Rd. @ Pine St. - Hospital	0.0	0.3	1.3	0.0	0.0	1.8	0.0	0.0	1.0
Donner Pass Rd. @ Depot	0.1	1.3	0.0	0.0	1.8	0.0	0.0	1.0	0.0
To Tahoe City									
Donner Pass Rd. @ Depot	2.1	0.0	2.0	3.3	0.0	3.3	2.0	0.0	2.0
Donner Pass Rd. @ New Hospital Offices	0.5	0.2	2.4	0.0	0.0	3.3	0.0	0.3	1.7
Donner Pass Rd. @ Safeway	1.5	0.2	3.6	0.8	0.8	3.3	1.0	0.3	2.3
Hwy. 89 between DMV & freeway	0.4	0.0	4.0	0.0	0.3	3.0	0.0	0.0	2.3
Hwy. 89 @ Deerfield & Crossroad driveway	0.7	0.2	4.5	0.8	1.0	2.8	0.7	0.3	2.7
Hwy. 89 across from West River St. trailer park	0.2	0.0	4.7	0.3	0.0	3.0	0.0	0.0	2.7
Squaw Valley Rd. @ 7-11 Store driveway (SHELTER)	0.0	0.2	4.5	0.3	0.0	3.3	0.0	0.3	2.3
Squaw Valley Rd. @ Post Office	0.2	0.3	4.4	0.5	0.5	3.3	0.7	0.3	2.7
Squaw Valley Rd. @ Clocktower Bldg.	3.2	0.7	6.9	1.8	0.3	4.8	0.3	0.3	2.7
Squaw parking lot @ Village (SHELTER In Building)	3.3	0.6	9.6	2.0	0.0	6.8	0.3	1.0	2.0
Resort At Squaw Creek Rear Entrance	0.9	0.3	10.1	0.0	0.0	6.8	0.0	0.0	2.0
Squaw Valley Rd. @ Squaw Creek Rd. (SHELTER)	0.4	0.1	10.5	0.0	0.0	6.8	0.0	0.0	2.0
Squaw Valley Rd. @ new park near entrance	0.0	0.0	10.5	0.0	0.0	6.8	0.0	0.0	2.0
Hwy. 89 @ Alpine Meadows Rd. - River Ranch	0.4	0.1	10.7	0.8	0.0	7.5	0.0	0.7	1.3
Hwy. 28 @ Hwy. 89 - Tahoe City "wye" (SHELTER)	0.0	10.8	0.0	0.0	7.5	0.0	0.0	1.3	0.0

Source: TART, 2013

Similar data was provided by TART staff for the winter only SR 267 route, as presented in Table 18. Unfortunately data was not available for weekend runs from Crystal Bay to Truckee. The data for weekday trips suggests that the predominant trip pattern for the SR 267 route is between Northstar and Kings Beach, as the average passengers on board drops after the bus reaches the Sawmill Heights housing complex in the Truckee direction. Overall, approximately 33 percent of ridership on this route is to/from Truckee, with the remainder traveling between Northstar, Kings Beach and Crystal Bay.

TRUCKEE TRANSIT ON-TIME PERFORMANCE

As part of the on-board survey process, the surveyors tracked on-time performance of the winter fixed-route. Tables 19 and 20 display the summarized results for each direction. “On time” is considered to be not early and no more than five minutes late. It appears that overall

TABLE 18: SR 267 TART Service Passengers by Stop

	Weekday			*Saturday*			*Sunday*		
	On	Off	Total Onboard	On	Off	Total Onboard	On	Off	Total Onboard
To Truckee									
Hwy 28 & Stateline Rd.	4.5	0.0	4.5	--	--	--	--	--	--
Hwy 28 & Chipmunk	1.5	0.0	6.0	--	--	--	--	--	--
Hwy 28 & Fox	0.5	0.5	6.0	--	--	--	--	--	--
Hwy 28 & Coon Street (7-11)	2.8	0.0	8.8	--	--	--	--	--	--
Hwy 28 @ Chevron Gas Station	2.0	0.0	10.8	--	--	--	--	--	--
Hwy 28 @ Rite Aide	1.5	0.0	12.3	--	--	--	--	--	--
Hwy 28 & Secline	0.3	0.0	12.5	--	--	--	--	--	--
Hwy 267 & Speckled St.	0.8	0.0	13.3	--	--	--	--	--	--
Hwy 267 & Cambridge	1.3	0.5	14.0	--	--	--	--	--	--
Hwy 267 & Stewart	0.8	0.5	14.3	--	--	--	--	--	--
Sawmill Heights (Employee Housing)	1.0	0.3	15.0	--	--	--	--	--	--
Northstar Village Gate # 7	4.3	13.3	6.0	--	--	--	--	--	--
Airport Rd & Truckee Town Hall	0.0	1.0	5.0	--	--	--	--	--	--
Airport	0.0	0.0	5.0	--	--	--	--	--	--
Hampton Inn & Suites	0.3	0.5	4.8	--	--	--	--	--	--
Best Western	0.0	0.3	4.5	--	--	--	--	--	--
Across from Village Green	0.0	0.5	4.0	--	--	--	--	--	--
Brockway Rd & Palisades Dr	0.0	1.0	3.0	--	--	--	--	--	--
Truckee Train Depot	0.0	3.0	0.0	--	--	--	--	--	--
To Crystal Bay									
Truckee Train Depot	2.0	0.0	2.0	4.0	0.0	4.0	3.5	0.0	3.5
Brockway Rd & Palisades Dr	0.0	0.0	2.0	0.0	0.0	4.0	0.0	0.0	3.5
Village Green (2nd Driveway)	0.0	0.0	2.0	0.0	0.0	4.0	0.0	0.0	3.5
Across from Best Western	0.4	0.0	2.4	0.0	2.0	2.0	1.0	0.0	4.5
Hampton Inn & Suites	1.0	0.0	3.4	0.0	0.0	2.0	0.5	0.0	5.0
Airport Rd & Truckee Town Hall	0.0	0.0	3.4	0.0	0.0	2.0	0.0	0.0	5.0
Airport	0.0	0.1	3.3	0.0	0.0	2.0	1.0	0.0	6.0
Northstar Village Gate # 7	2.4	2.0	3.7	14.0	1.0	15.0	1.5	6.0	1.5
Sawmill Heights (Employee Housing)	0.7	0.1	4.3	2.0	2.0	15.0	0.5	1.5	0.5
Hwy 267 & Stewart	0.0	0.4	3.9	0.0	0.0	15.0	0.0	0.0	0.5
Hwy 267 & Lincoln Green	0.0	1.0	2.9	0.0	4.0	11.0	0.0	0.0	0.5
Hwy 267 & Speckled	0.1	0.7	2.3	0.0	1.0	10.0	0.0	0.0	0.5
Hwy 28 & Secline	0.3	1.4	1.1	0.0	3.0	7.0	0.0	0.0	0.5
Hwy 28 Across from gas station (Beach)	0.4	0.1	1.4	0.0	2.0	5.0	1.5	0.0	2.0
Hwy 28 & Coon Street	0.4	0.3	1.6	2.0	5.0	2.0	0.0	0.0	2.0
Hwy 28 & Fox	0.4	0.0	2.0	0.0	1.0	1.0	0.0	0.0	2.0
Hwy 28 & Chipmunk	0.0	0.6	1.4	0.0	0.0	1.0	0.0	0.5	1.5
Hwy 28 & Stateline Rd.	0.0	1.4	0.0	0.0	1.0	0.0	0.0	1.5	0.0

Source: TART, 2013

there is sufficient time available for all stops. However, there were some issues that presented significant delays during the survey period. All of the late buses occurred on February 7th. The first delay, which occurred between the Donner Pass Road 7-11 stop and the Mt Judah Day Lodge stop, was on the 8:52 AM westbound route. The late occurrences were the result of the boarding / alighting of a disabled passenger. The bus was able to catch up and maintain

schedule. The most significant delays occurred on the 2:45 PM westbound and 4:05 PM eastbound runs, where the maximum late observation was 27 minutes at the Sugar Bowl Academy. These delays were caused by a snow storm and unexpected chain control, which threw the bus off schedule.

TABLE 19: Truckee Transit On-Time Performance Summary, Westbound Runs

Deviation from Scheduled Time (Positive Value Reflects Minutes Late, Negative Value Reflects Minutes Early)

Stop		6:00 AM Run		8:52 AM Run		11:34 AM Run		2:45 PM Run	
		2/6/2013	2/7/2013	2/6/2013	2/7/2013	2/6/2013	2/7/2013	2/6/2013	2/7/2013
Henness Rd @ Henness Flat Apt	Depart	--	--	--	--	--	--	--	--
Browkway Rd @ Larkspur	Arrive	--	--	--	--	--	--	--	--
Brockway Rd @ Reynold Way	Arrive	--	--	--	--	--	--	--	--
Estates Dr @ Senior Apts	Arrive	--	--	--	--	--	--	--	--
Brockway Rd @ Regional Park	Arrive	--	--	--	--	--	--	--	--
Tahoe Depot	Arrive	--	--	--	--	--	--	--	--
Tahoe Forest Hospital	Arrive	--	--	--	--	--	--	--	--
Gateway Center (Safeway)	Arrive	--	--	--	--	--	--	--	--
Deerfield Dr. @ Crossroads Center	Arrive	--	--	--	--	--	--	--	--
Donner Pass Rd @ 7-11	Arrive	--	--	--	7	--	--	--	--
Donner Pass Rd @ School Dist Bldg	Arrive	--	--	--	7	--	--	--	--
Donner Pass Rd @ Northwoods Blvd	Arrive	--	--	--	8	--	--	--	--
Tric-Counties Bank Plaza	Arrive	--	--	--	8	--	--	--	--
Truckee Donner Lodge	Arrive	--	--	--	7	--	--	--	--
Sticks Market	Arrive	--	--	--	--	--	--	--	--
Donner Pass Rd @ South Shore Dr	Arrive	--	--	--	--	--	--	--	--
Sugar Bowl Academy	Arrive	--	--	--	--	--	--	--	27
Mt Juday Day Lodge	Arrive	--	--	--	--	--	--	--	26
Donner Ski Ranch	Arrive	--	--	--	--	--	--	--	24
Sugar Bowl Gondola	Arrive	--	--	--	--	--	--	--	22
Tri Lodges	Arrive	--	--	--	--	--	--	--	22
Donner Pass Rd @ Soda Springs Rd	Arrive	--	--	--	--	--	--	--	21
Soda Springs Ski Resort	Arrive	--	--	--	--	--	--	--	--
Pahatsi Rd @ Yuba Dr	Arrive	--	--	--	--	--	--	--	--
Royal Gorge XC Ski Resort	Arrive	--	--	--	--	--	--	--	--
Soda Springs Rd @ Donner Pass Rd	Arrive	--	--	--	--	--	--	--	--
Soda Springs General Store	Arrive	-7	--	--	--	--	--	--	17
Donner Summit Lodge	Arrive	-9	--	--	--	--	--	-7	16
Boreal Ridge Ski Resort	Arrive	--	--	--	--	--	--	--	14

Source: LSC Transportation Consultants, Inc., 2013

As the delays were unexpected and only occurred on one day, overall Truckee Transit maintains a satisfactory on-time performance. However, schedules should be modified to avoid running ahead of schedule, and drivers should be instructed to not operate ahead of schedule. As shown in the tables, there are a few stops where the bus was consistently early, up to 8 minutes. Buses leaving ahead of schedule can result in passengers missing the bus.

VEHICLE SERVICE HOURS AND MILES

Table 21 presents performance data, including vehicle service hour and mile data for Truckee Transit and TART (Fiscal Year 2011-12). According to industry standards, the figures do not include deadhead hours/miles, check-in and check-out time, fueling time or time when the vehicle is inoperable.

TABLE 20: Truckee Transit On-Time Performance Summary, Eastbound Runs

Deviation from Scheduled Time (Positive Value Reflects Minutes Late, Negative Value Reflects Minutes Early)

		7:30 AM Run		10:22 AM Run		4:05 PM RUN	
Stop		2/6/2013	2/7/2013	2/6/2013	2/7/2013	2/6/2013	2/7/2013
Boreal Ridge Ski Resort	Depart	--	--	--	--	--	14
Donner Summit Lodge	Arrive	--	--	--	-8	--	13
Soda Springs General Store	Arrive	--	--	--	--	--	12
Donner Pass Rd @ Soda Springs Rd	Arrive	-6	--	--	--	--	9
Soda Springs Ski Resort	Arrive	-7	-6	--	--	--	11
Pahatsi Rd @ Yuba Dr	Arrive	-7	-7	--	--	--	11
Royal Gorge XC Ski Resort	Arrive	-8	-8	--	--	--	11
Soda Springs Rd @ Donner Pass Rd	Arrive	--	--	--	--	--	12
Tri Lodges	Arrive	--	--	--	--	--	10
Sugar Bowl Gondola	Arrive	--	-6	--	--	--	10
Donner Ski Ranch	Arrive	--	--	--	--	--	10
My Judah Day Lodge	Arrive	--	--	-6	-6	--	7
Sugar Bowl Ski Academy	Arrive	--	--	--	--	--	7
Donner Pass Rd @ South Shore Dr	Arrive	--	--	--	--	--	8
Sitcks Market	Arrive	--	--	--	--	--	12
Truckee Donner Lodge	Arrive	--	--	--	--	--	12
Tri-Counties Bank Plaza	Arrive	--	--	--	--	--	11
Donner Pass Rd @ Northwoods Blvd	Arrive	--	--	--	--	--	10
Donner Pass Rd @ School Dist Bldg	Arrive	--	--	--	--	--	10
Donner Pass Rd @ 7-11	Arrive	--	--	--	--	--	10
Deerfield Dr @ Crossroads Center	Arrive	--	--	--	--	--	11
Donner Pass Rd @ Bank of America	Arrive	--	--	--	--	--	18
Tahoe Forest Hospital	Arrive	--	--	--	--	--	17
Truckee Depot	Arrive	--	--	--	--	--	18
Truckee Community Recreation Center	Arrive	--	--	--	--	--	19
Henness Rd @ Henness Flat Apts	Arrive	--	--	--	--	--	19

Source: LSC Transportation Consultants, Inc., 2013

TABLE 21: Eastern Nevada County Operating Data and Performance Indicators

Fiscal Year 2011-2012

	Truckee Dial-A-Ride	Truckee Fixed-Route			Truckee System-wide	TART SR 89	TART SR 267	Area wide
		Winter	Non-Winter	Total				
Operating Data								
One-Way Passenger Trips	11,524	11,522	4,187	15,709	27,233	82,442	41,043	**150,718**
Vehicle Service Hours	3,753	1,547	1,531	3,077	6,830	8,015	3,118	**17,963**
Vehicle Service Miles	53,135	24,791	29,538	54,329	107,463	167,352	58,952	**333,767**
Annual Costs[(1)]								
Marginal Operating Costs	$276,818	$117,166	$121,271	$238,437	$515,255	$696,165	$264,394	**$1,475,815**
Allocated Fixed Costs	$46,032	$18,971	$18,772	$37,742	$83,774	$244,833	$95,231	**$423,838**
Total Annual Operating Costs	$322,850	$136,137	$140,043	$276,179	$599,029	$940,998	$359,625	**$1,899,653**
Farebox Revenues	$12,943	$51,392	$4,527	$55,919	$68,862	$100,945	$52,533	**$222,341**
Subsidy Required	$309,906	$84,745	$135,516	$220,260	$530,167	$840,053	$307,092	**$1,677,312**
Performance Indicators								
Average Fare	$1.12	$4.46	$1.08	$3.56	$2.53	$1.22	$1.28	**$1.48**
Operating Cost Per Passenger Trip	$28.02	$11.82	$33.45	$17.58	$22.00	$11.41	$8.76	**$12.60**
Subsidy Per Trip	$26.89	$7.36	$32.37	$14.02	$19.47	$10.19	$7.48	**$11.13**
Farebox Recovery Ratio	4.0%	37.8%	3.2%	20.2%	11.5%	10.7%	14.6%	**11.7%**
Trips Per Vehicle Service-Hour	3.1	7.4	2.7	5.1	4.0	10.3	13.2	**8.4**
Trips Per Vehicle Service-Mile	0.2	0.5	0.1	0.3	0.3	0.5	0.7	**0.5**

Note 1: Truckee Transit operating costs allocated based on cost factors in cost model. TART operating costs based on FY 05-06 cost model from Performance Audit, adjusted for inflation.

Note 2: Fare revenues includes contribution for Donner Summit Shuttle

In Fiscal Year 2011-12, Truckee Transit operated a total of 6,830 vehicle service hours systemwide. Of this total, 3,077 hours were associated with the fixed-route and 3,753 hours were from the DAR service. In the same year, TART operated 8,015 hours on the SR 89 route and 3,118 hours on the SR 267 route. TART accumulated a larger number of vehicle miles in Fiscal Year 2011-12 (226,304 miles) than Truckee Transit (107,463).

EASTERN NEVADA COUNTY TRANSIT FINANCIAL ANALYSIS

Revenues

Table 22 presents actual Town of Truckee transit operating and capital revenues by source for Fiscal Year 2011-12. As indicated in the table, the budgeted sources of funding in Fiscal Year 2011-12 are State Funds (69 percent), followed by Local Funds (17.3 percent), Federal Funds (10.5 percent) and Other Funds (3.2 percent). Overall, TDA Local Transportation Funds (LTF) account for just over 60 percent of both operating and capital revenues. As shown, contributions / funding for the Donner Summit Route represent 6.5 percent of total revenue. These funds are included as winter fixed-route farebox revenue for performance calculations, as ski resort employees and patrons are allowed to ride the winter fixed-route for free in exchange for the contribution. Private revenue contributions include the $67,638 fee from Grays Crossing intended to support public transit service in Northeast Truckee.

TABLE 22: Town of Truckee Transit Revenues

Fiscal Year 2011-2012

Source			Percent of Total
Local Funds			
Transit Fares		$17,470	2.2%
Donner Summit Shuttle		$51,392	6.5%
Other Private Contributions		$67,638	8.6%
	Subtotal	*$136,500*	*17.3%*
State Funds			
Local Transportation Funds		$474,129	60.2%
State Transit Assistance		$69,390	8.8%
	Subtotal	*$543,519*	*69.0%*
Federal Funds			
FTA 5311		--	0.0%
ARRA		$83,000	10.5%
	Subtotal	*$83,000*	*10.5%*
Other Funds			
Advertising		$25,000	3.2%
Interest Income		--	0.0%
	Subtotal	*$25,000*	*3.2%*
	Total Revenue	**$788,019**	**100.0%**

Source: Town of Truckee 2012/12 Revenue Budget, 2013

Expenses

Actual Town of Truckee expenses related to the operations of the Truckee Transit fixed-routes and DAR for FY 2011-12 are presented in Table 23, and are exclusive of TART professional services (for the TART routes) and depreciation expenses. Total operating expenses for the fiscal year totaled $599,028. The primary operating expense is the operating contract for DAR and fixed-route services ($282,252) followed by the fixed route expenses ($225,652).

TABLE 23: Truckee Transit Fiscal Year 2011-12 Operating Expenses and Cost Allocation

Line Item	Allocation			Total Expense
	Fixed	Per Hour	Per Mile	
Town Personnel Expenses				
Salaries and Benefits	$78,359	$0	$0	$78,359
Subtotal: Personnel	*$78,359*	*$0*	*$0*	*$78,359*
Fixed Route Expenses				
Professional Services	$0	$173,000	$0	$173,000
Vehicles - Fuel	$0	$0	$20,000	$20,000
Fleet Maintenance Allocation	$0	$0	$32,252	$32,252
General Supplies	$400	$0	$0	$400
Advertising	$0	$0	$0	$0
Subtotal	*$400*	*$173,000*	*$52,252*	*$225,652*
Dial-A-Ride Expenses				
Professional Services	$0	$220,000	$0	$220,000
Vehicles - Fuel	$0	$0	$30,000	$30,000
Fleet Maintenance Allocation	$0	$0	$32,252	$32,252
Subtotal	*$0*	*$220,000*	*$62,252*	*$282,252*
General Transit				
Education and Training	$0	$0	$0	$0
General Supplies	$255	$0	$0	$255
Postage, Freight & Delivery	$60	$0	$0	$60
Membership & Dues	$3,500	$0	$0	$3,500
Professional Services	$0	$7,000	$0	$7,000
Professional Services - Audit	$0	$750	$0	$750
Telephone	$500	$0	$0	$500
Repair and Maintenance - Buildings	$700	$0	$0	$700
Subtotal	*$5,015*	*$7,750*	*$0*	*$12,765*
Total Operating Costs	**$83,774**	**$400,750**	**$114,504**	**$599,028**

Service Factors for FY 2011-2012		Vehicle Service Hours	Vehicle Service Miles
		6,830	107,463
Vehicle Service Hour Cost Factor	**$58.67**		
Vehicle Service Mile Cost Factor	**$1.07**		
Annual Fixed Cost	**$83,774**		

Source: Town of Truckee Fiscal Audit and Town 2012-13 Expenditures Budget.

Cost Allocation Model

When developing and evaluating service alternatives, it is useful to develop a "cost model," which can easily show the financial impact of any proposed changes. Table 23 also presents the FY 2011-12 cost allocation model for Truckee Transit operations (winter and non-winter fixed-route and DAR). It should be noted that the cost models show the *total operating cost* rather than the *total subsidy*, which is total operating cost minus passenger fare revenues. Each cost item is allocated to that quantity on which it is most dependent. Maintenance costs, for example are allocated to vehicle service miles. This provides a more accurate estimate of costs than a simple total-cost-per-vehicle-hour factor, which does not vary with the differing mileage associated with an hour of service on DAR versus the fixed-route. For FY 2011-12, this equation is:

Operating Cost = $1.07 x vehicle service miles
+ $58.67 per vehicle service hour
+ $83,774 annually for fixed costs

This equation can be used to estimate the cost of any changes in service, such as the operation of additional routes or changes in service span. It is used as part of this study to evaluate the cost impacts of service alternatives, including service reductions. It should be noted that the cost model does not include depreciation or capital items (such as vehicle purchases) made during the fiscal year. This cost model is intended to represent costs for Truckee Transit fixed-route and DAR services only. Therefore it does not include costs associated with subsidy paid to TART for the operation of the SR 89 and SR 267 routes. A similar cost model for TART was provided by Placer County Department of Public Works.

EASTERN NEVADA COUNTY TRANSIT SYSTEM PERFORMANCE

To gain further insight into the efficiency and effectiveness of transit services in Eastern Nevada County, it is useful to conduct an analysis of ridership and operating data on a service category basis. Ridership and operating statistics for FY 2011-12 were reviewed to identify average passenger activity, fares, and operating quantities. Fares can then be subtracted to identify the average daily subsidy required to fund each service. Finally, these data can be used to evaluate a number of productivity and service measures.

Operating Characteristics by Service

Table 21 presents operating and performance data for all Truckee Transit services and TART routes serving Truckee in FY 2011-12. As presented in the table, annual ridership by service ranges from a low of 4,187 on the non-winter Trolley service to a high of 82,442 on the TART SR 89 service. During the winter months, 11,522 one-way passenger-trips were provided on the Truckee fixed-route, representing 73 percent of annual Truckee fixed-route ridership. Combined, the annual ridership of the Town of Truckee's transit services totaled 27,233.

Truckee Transit annual operating costs were allocated between the various services based on the cost model presented in Table 23. TART operating costs were based on data provided by the transit operator. The area-wide operating costs in FY 2011-12 were $1,899,653. Combined, the operating cost of the Town of Truckee's transit services totaled $599,029. Out of Truckee

Transit services, the DAR service costs were the greatest ($322,850, or roughly 54 percent of the total), followed by the non-winter fixed-route ($140,043). Overall, TART's SR 89 service is the most expensive ($940,998).

The total farebox revenues collected on the Truckee Transit routes was $68,862, and area wide was $222,341. Combined, the public subsidy of the Town of Truckee's transit services totaled $530,167, while the area wide public subsidy totaled nearly $1.7 million. The TART SR 89 service required the highest annual subsidy ($672,833), followed by the Truckee DAR service ($314,457). The lowest public subsidy required on existing transit services was $38,694 on the winter fixed-route.

Operating Performance by Service

The financial efficiency of a transit system can be measured by the **operating cost per passenger-trip**, as presented in the bottom portion of Table 21 and Figure 10. The area wide operating cost per passenger-trip in FY 2011-12 was $12.37. Systemwide, the operating cost per passenger-trip for Truckee Transit was $22.00. The winter service had the lowest cost per passenger-trip ($11.82), while the non-winter route had the highest ($33.45). TART SR 89 service had a cost of $11.41 per passenger, while the SR 267 cost $8.20 per passenger-trip.

When fare revenue is subtracted from the total operating cost and divided by the number of one-way passenger-trips, the **subsidy required per passenger-trip** is calculated. This performance measure is particularly important, as it directly compares the most significant public "input" (public subsidy funding) with the most significant "output" (passenger-trips). The area wide system as a whole required a subsidy of $10.92 per passenger-trip. As shown in the table and Figure 11, the TART 267 required a subsidy of only $7.00 per passenger-trip, followed by the Truckee winter fixed-route ($7.36). Combined, the subsidy per passenger-trip of the Town of Truckee's transit services was $19.47. On the other hand, the Truckee Transit fixed-route service in the non-winter months requires $32.37 in subsidy for every passenger-trip served.

Another measure of each route's efficiency is provided by the **farebox recovery ratio**, defined as the total fare revenues (whether provided by the passenger in the farebox or by a private organization) divided by the marginal operating costs. This information is presented in the table and Figure 12. The farebox recovery ratio is particularly important as a measurement for meeting the mandated minimums required for state funding and is calculated by dividing fare revenue by operating costs. The area-wide farebox recovery ratio is 11.7 percent. The Truckee winter fixed-route boasted the highest farebox recovery ratio (37.8 percent) of existing services thanks to the Donner Summit Route contributions, followed by the TART SR 267 service (14.6 percent). Combined, the farebox recovery ratio of the Town of Truckee's transit services was 11.5 percent, just above the TDA minimum requirement of 10.0 percent. The non-winter fixed-route and DAR both have relatively poor farebox recovery ratios (3.2 percent and 4.0 percent respectively).

An important measure of service effectiveness is productivity, defined as the number of one-way **passenger-trips provided per vehicle service hour**. As shown in the table and Figure 13, the system as a whole achieved a productivity of 8.5 one-way passenger-trips per vehicle service hour. Combined, the productivity of the Town of Truckee's transit services was 4.0 one-way passenger-trips per vehicle service hour. Not surprisingly, the TART SR 267 and SR 89

services boasted the highest productivity figures (14.1 and 10.3, respectively), followed by the Truckee Winter Shuttle service (7.4). Typically fixed-route services attain higher productivity figures than demand response services. In the case of Truckee Transit, the non-winter fixed-route has a very low productivity figure of 2.7 passengers per hour as compared to DAR (3.1 passengers per hour).

Another measure of service effectiveness is the number of one-way **passenger-trips provided per vehicle service mile**. The systemwide average during the fiscal year was 0.5 one-way passenger-trips per vehicle service mile. Combined, the passenger-trips provided per vehicle service mile of the Town of Truckee's transit services was 0.3. As shown in the table and Figure 14, the TART SR 267 service had the highest trips per vehicle service mile (0.7), followed by the TART SR 89 and Truckee winter fixed-route (each with 0.5).

FIGURE 10: Eastern Nevada County Operating Cost per Passenger
Fiscal Year 2011-12

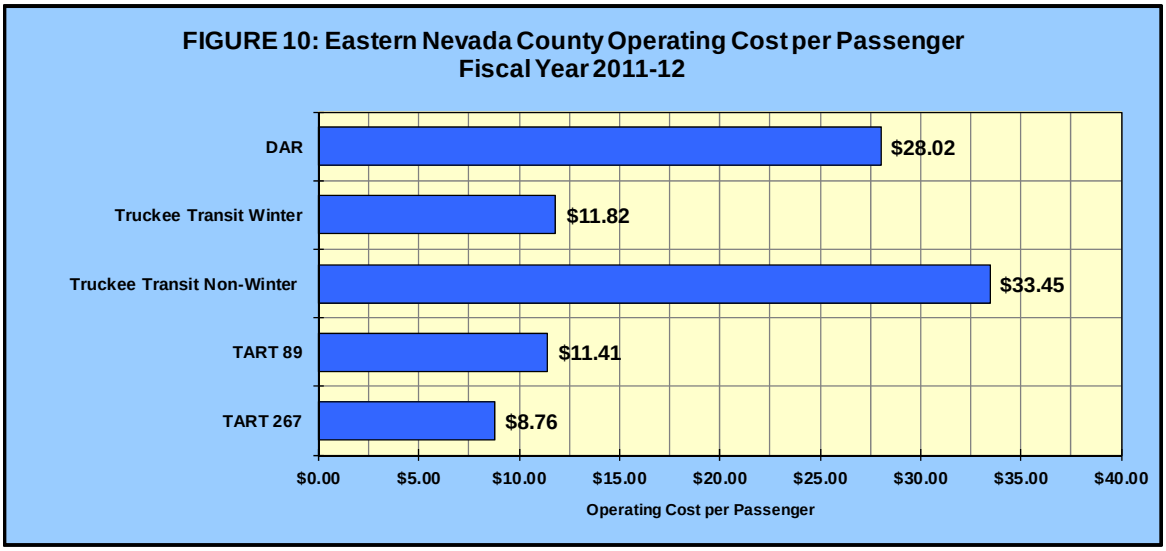
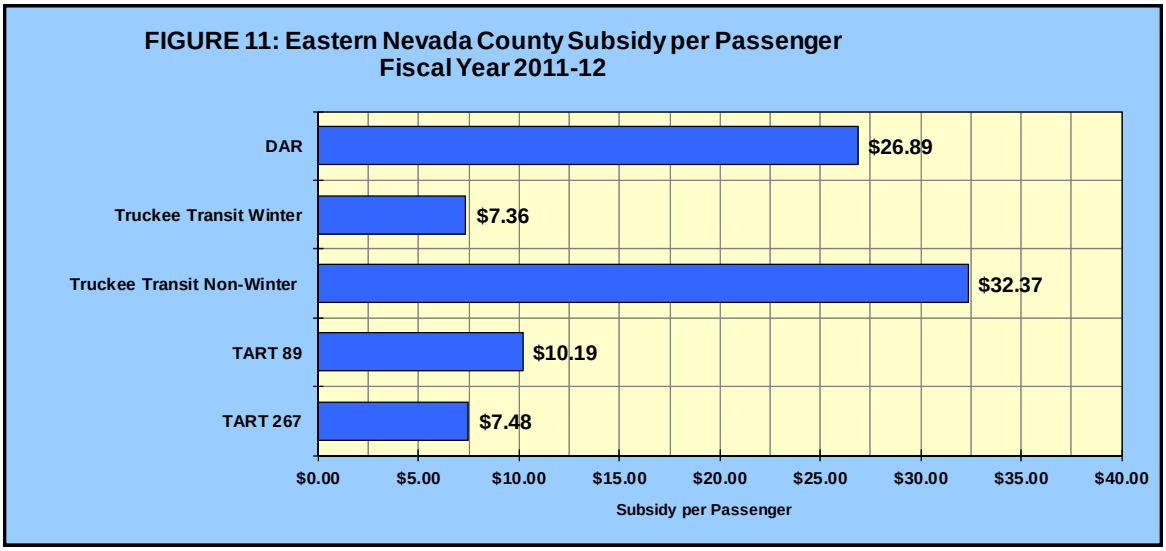


FIGURE 11: Eastern Nevada County Subsidy per Passenger
Fiscal Year 2011-12



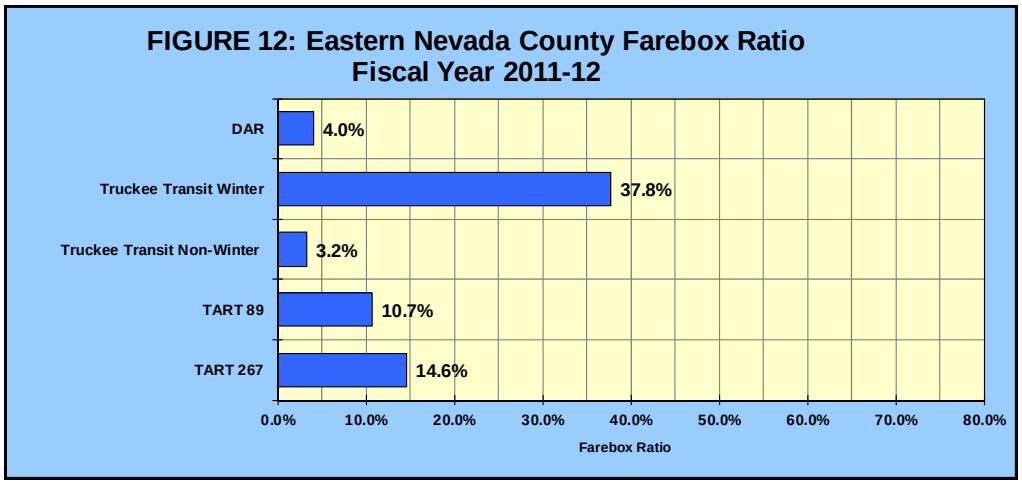


FIGURE 12: Eastern Nevada County Farebox Ratio
Fiscal Year 2011-12
DAR
Truckee Transit Winter
Truckee Transit Non-Winter
TART 89
TART 267
4.0%
37.8%
3.2%
10.7%
14.6%
0.0%
10.0%
20.0%
30.0%
40.0%
50.0%
60.0%
70.0%
80.0%
Farebox Ratio

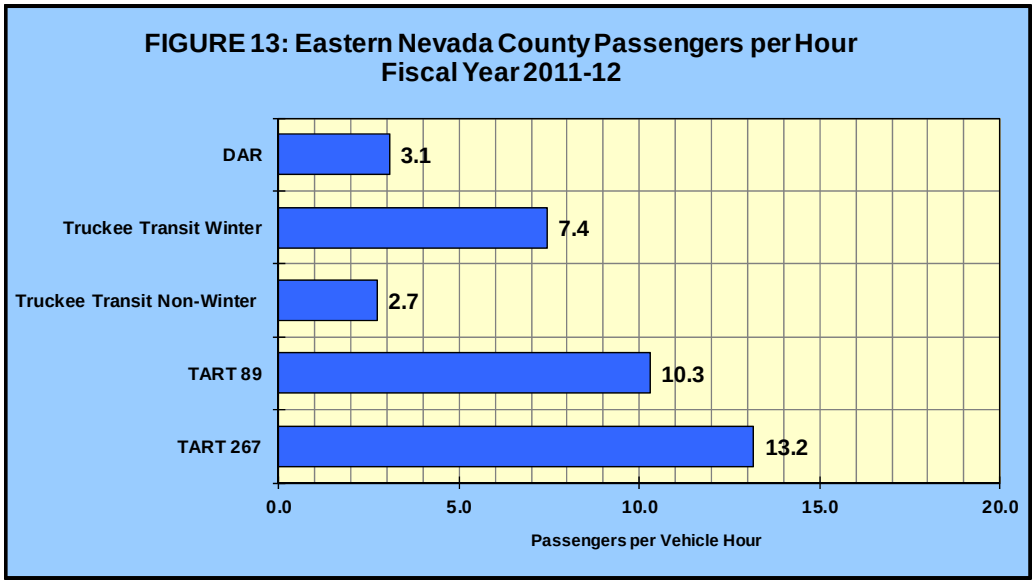


FIGURE 13: Eastern Nevada County Passengers per Hour
Fiscal Year 2011-12
DAR
Truckee Transit Winter
Truckee Transit Non-Winter
TART 89
TART 267
3.1
7.4
2.7
10.3
13.2
0.0
5.0
10.0
15.0
20.0
Passengers per Vehicle Hour

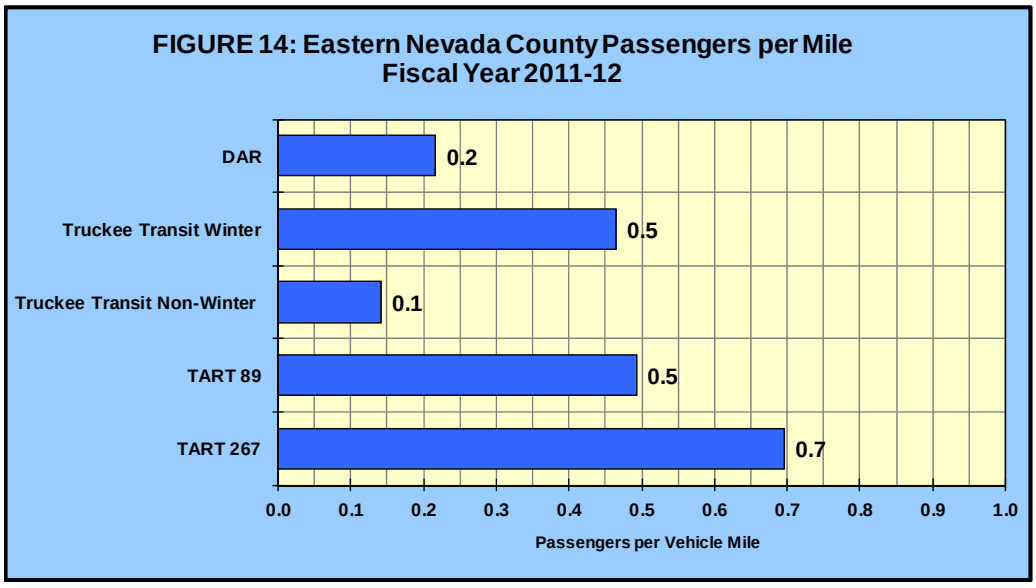


FIGURE 14: Eastern Nevada County Passengers per Mile
Fiscal Year 2011-12
DAR
Truckee Transit Winter
Truckee Transit Non-Winter
TART 89
TART 267
0.2
0.5
0.1
0.5
0.7
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Passengers per Vehicle Mile

HUMAN SERVICE ORGANIZATIONS AND TRANSPORTATION PROVIDERS

In addition to the local general public systems discussed above, the following services also serve the Eastern Nevada County region:

- **Tahoe Forest Hospital -** The Extended Care Center (ECC) of Tahoe Forest Hospital in Truckee provides limited transportation for their 35 residents. The hospital acquired one van through a Community Foundation Grant that can accommodate four passengers plus two wheelchairs. The van is used about once a week to transport residents to local medical appointments or on field trips. Only one or two passengers are typically transported at a time for medical appointments. ECC staff coordinates with Choices, a local therapy/learning center for developmentally disabled individuals, to arrange DAR trips between the hospital and Choices on Pioneer Trail. Approximately two ECC residents take Truckee DAR to Choices anywhere from two to three times per week.

  A common transportation problem among human service organizations in Eastern Nevada County is out of area medical transportation needs. Many county-provided medical services are located in Nevada City (the county seat) on the other side of the Sierra crest. Although Reno has major medical services and is geographically closer, Medi-Cal clients must receive services within the State of California. Tahoe Forest staff cited ECC residents needing transportation to services at UC Davis as an example of out-of-county medical transportation needs.

- **Nevada County Health and Human Services Agency** – This County agency provides the Truckee community with many vital resources for assistance including adult protective services, in-home support services, public conservatorship, and senior nursing programs. The Truckee offices are located at The Joseph Center on Levon Avenue. The agency does not provide transportation to persons with disabilities, but may assess the transportation needs of disabled clients.

  The Nevada County Health and Human Services department also administers a volunteer driver program through the Grass Valley Veterans Office. The Veteran's Service Office (VSO) in Nevada County provides free transportation to the Reno Veterans Administration (VA) Medical Center through a volunteer driver program. The VSO uses a 6-passenger van to travel from Grass Valley to the medical center in Reno, making stops in Truckee if there is a passenger need. The program manager indicates that service to Truckee residents is only rarely requested. To ensure a seat on the vehicle, a person must have an appointment at the Reno VA Medical Center and must call the VSO at least a week in advance. In most cases, the van does not provide service to residences, but rather will meet the passenger at a location close to the highway (such as the McDonald's on Deerfield Drive). Unfortunately, the van is not wheelchair accessible and cannot accommodate persons using walkers. This program is funded through the Disabled American Veteran's program.

- **Sierra Senior Services** – Sierra Senior Services is an advocacy organization for seniors in the Truckee region. The agency offers a senior nutrition program (which includes both Meals-on-Wheels and a congregate senior lunch program), provides case management, works with health care providers, and offers information and referrals to seniors. Sierra Senior Services operates the Senior Apartments in the Truckee Donner Senior Apartments

on Brockway Road, which is the site of the senior lunch program. The Senior Apartments are also available to disabled persons. Both Truckee fixed route and the DAR service serve the Senior Apartments multiple times per day.

- **Alta California Regional Center (ACRC)** – Provides and coordinates a variety of services for persons with developmental disabilities including mental retardation, autism, cerebral palsy, and epilepsy including early intervention for children, outings and respite for family members. ACRC's mission is to provide persons with developmental disabilities greater access to life activities and experiences. ACRC consumers are age three and up. Every person found eligible for ACRC services is assigned a Service Coordinator, who helps identify and coordinate needed services through either pre-existing resources in the community or through services purchased for the consumer by ACRC. With respect to transit service in Truckee, ACRC pays for consumers to ride DAR to and from life skills programs such as Choices (discussed below). For consumers in the North Lake Tahoe area, ACRC reimburses family members to transport clients to the Truckee programs. All of ACRC's 25 Truckee consumers (this includes Choices consumers) are considered ADA-eligible and utilize public transit including DAR, Truckee Transit fixed-routes, and TART. ACRC consumers live in the Senior Apartments near the Gateway Center, Ponderosa Palisades, Tahoe Donner, and Kings Beach.

- **Truckee Area Access Program (Choices)** – Choices is a program that teaches independence and living skills to the developmentally disabled. Activities include ceramics class at the Recreation Center, attending the senior lunch, and visits to the Kid Zone. Most consumers live in Truckee. A small number reside at the Senior Apartments, some at ECC, and others live in Sierra Meadows, Glenshire, and in the Gateway area. Three consumers live in the North Lake Tahoe area. All of the Choices consumers are transit dependent and their DAR trips are paid for by Alta. Truckee DAR generally provides transportation to and from the consumer's residences. Programs begin around 8:30 AM and end around 2:00 PM. During the day Choices staffers often use private vehicles to transport consumers to different activities.

- **Tahoe-Truckee Unified School District-Special Education** – Several teachers at the local school district coordinate with DAR to arrange trips for students to programs at Alder Creek Middle School, Truckee High School, and Sierra College at the Pioneer Center, as well as at the Senior Apartments and other locations. The transitional class at Sierra College teaches developmentally disabled students ages 18 to 22 those life skills necessary for transitioning from high school to the adult world. Students are taught transit skills and many are able to use Truckee Transit fixed-routes and TART independently. DAR sheets show that average daily weekday ridership by special education students is about 5 one-way passenger trips.

- **The American Cancer Society -** The American Cancer Society and the Truckee-North Tahoe Transportation Management Association (TNT-TMA) collaborate in operating a volunteer driver program. This program, new as of 2011, is part of the American Cancer Society's Road to Recovery program, which assists patients and their caregivers with transportation needs. Through this option, patients that may not have access to transportation can get to their scheduled appointments within Truckee, as well as other areas such as Reno or Auburn.

The program is based on volunteer drivers and driver coordinators. The volunteer drivers donate their time and resources to transport patients to and from treatment. Drivers must have a safe and reliable vehicle, proof of automobile insurance, and a good driving history. This is a wholly volunteer program, as the drivers do not get reimbursed for their mileage. Driver coordinators schedule the rides, and work at convenient times for their personal schedule – there are no set hours.

OTHER TRANSIT PROVIDERS

Coordinated Skier Shuttle

In 2013, the Truckee-North Tahoe Transportation Management Association implemented a new coordinated skier shuttle, working with various ski areas in the greater Tahoe area. This free service offers transportation to Squaw Valley, Alpine Meadows, Northstar California, Donner Ski Ranch, Sugar Bowl, Royal Gorge and Boreal ski areas from various locations in Truckee. In addition to the ski areas themselves, the shuttle stops at the Truckee Train Depot, Northstar California Park and Ride, Truckee Park and Ride, the Ritz Carlton and areas along the Brockway Corridor (including Hampton Inn, Cedar House Inn, Larkspur Hotel and the Truckee Tahoe Airport). The shuttle provides morning trips to ski resorts and return afternoon trips to all specified pick-up locations.

North Lake Tahoe Express

The North Lake Tahoe Express is an airport shuttle service, first initiated in 2006, operating between the Reno Tahoe International Airport and the North Lake Tahoe area. Departures in both directions are offered at specific times throughout the day and vary depending on the pick-up or drop-off locations.

Service between Truckee and the Reno-Tahoe International Airport is available at three locations – the Truckee Tahoe Airport, Cedar House Sports Hotel, and the Truckee Train Depot. For all locations, shuttles depart the Reno-Tahoe International Airport for Truckee six times per day, at 8:00 AM, 11:15 AM, 3:15 PM, 5:30 PM, 7:30 PM and 11:15 PM. The Truckee Train Depot has three additional shuttle times, which depart Reno at 2:00 PM, 8:45 PM and 11:45 PM. Service to the Reno Tahoe International Airport is available from all locations, with shuttles departing five times per day at between 6:15 AM and 9:30 PM, with departures in the 6:00 AM, 9:00 AM, 1:00 PM, 5:00 PM and 9:00 PM hours. The Truckee Train Depot also has an additional departure for the airport during the 7:00 AM hour.

The Northstar California resort is also served by the North Lake Tahoe Express, with stops at Northstar California, Sawmill Heights, Tahoe Mountain Resorts Lodging / Village at Northstar and the Ritz-Carlton Lake Tahoe. Departures from the airport are generally the same as those in Truckee (discussed above), however there is an additional departure from the Reno Airport at 1:00 PM. Service to the airport is also the same as the Truckee service, with five departures per day around the 6:00 AM, 9:00 AM, 1:00 PM, 5:00 PM and 9:00 PM hours.

The service is operated by a contracted private transportation company, Airport Mini-Bus, which is part of a group of companies that also includes Bell Limo and Whittlesea-Checker Cab. With regards to the North Lake Tahoe Express program, Airport Mini-Bus is responsible for maintenance and fueling of the vehicles, providing drivers and all training, dispatching, operation of the reservations systems, staffing at the airport ticket counter, and maintaining records of the service.

Private Ridesharing

A new ridesharing service focusing on the I-80 corridor between the Bay Area and Reno/Tahoe has recently been implemented. Zimride (public.zimride.com) is a private startup company. Persons that are traveling to a specific location with empty seats in their vehicle post their trip on the Zimride website, enabling others who are interesting in traveling to the same location to purchase a seat in the vehicle. It is free of charge to use the service, however drivers do charge a "fare" for each empty seat; fares are set by the driver. All bookings are made through the website, in addition to payment processing. Passengers may purchase one-way or roundtrip rides, so long as there are empty seats available for their trip.

There is no specific "trip purpose" required – passengers may use the service for ski trips, medical appointments, etc. As such, this may be an alternative for persons requiring trips from Truckee to Sacramento or Auburn for social service or medical appointments that would not otherwise have access to a vehicle or transportation. In addition, it is a popular way for persons to take day trips or weekend trips to Lake Tahoe for skiing in the winter from nearby locations such as the San Francisco or Sacramento areas.

Private Taxicab Companies

There are a variety of taxicab companies available in the Tahoe-Truckee area. Tahoe Blue Taxi operates complementary paratransit service for TART.

Greyhound Lines, Incorporated

Greyhound operates service along the I-80 corridor between Reno and Sacramento (and beyond), stopping at the Truckee Train Depot. Eastbound departures from Sacramento are at 9:20 AM and 3:50 PM, arriving in Truckee at 11:59 AM and 5:50 PM, respectively. These buses continue on to Reno, with arrivals in downtown Reno at 12:50 PM and 6:40 PM. Westbound buses traveling to Sacramento depart Reno at 6:35 AM and 2:50 PM, arriving in Truckee at 7:25 AM and 3:40 PM. Buses continue to Sacramento and arrive at 10:00 AM and 6:15 PM.

Amtrak

Train service in Truckee consists of Amtrak's *California Zephyr* route, which travels from the San Francisco Bay Area to Chicago. The train departs Emeryville (Bay Area) daily at 9:10 AM and arrives in Truckee at 2:38 PM; the return train leaves at 9:37 AM and arrives in Emeryville at 4:10 PM. Traveling to Chicago, the train departs Truckee at 2:38 PM and arrives in Chicago at 2:50 PM two days later. Traveling to Truckee, the train departs Chicago at 2:00 PM and arrives at the Truckee Train Depot at 9:37 AM two days later.

In addition to train service, Amtrak Thruway Bus Service is also offered from Sacramento. Passengers arriving into Sacramento through the *Coast Starlight* (originating in Los Angeles and Seattle), *Capital Corridor* (originating in San Jose) or the *San Joaquin* (originating in Bakersfield) routes can connect with a bus to the Truckee Train Depot. Buses depart Sacramento at 10:15 AM, 1:00 PM and 4:00 PM daily, while buses depart Truckee at 8:45 AM, 12:10 PM and 5:45 PM. In order to use the Thruway buses, passengers must book a portion of their trip on rail service.

UNMET TRANSIT NEEDS

The California TDA requires annual unmet transit needs hearings if a jurisdiction proposes to spend some TDA funds on streets and roads. The TDA is the primary source of funding for public transit in Nevada County. In recent years, Nevada County has not allocated TDA funds towards streets and roads. Therefore, an official unmet needs report has not been prepared. NCTC does, however, hold a public meeting each year to receive public input on transit needs in the region.

Unmet Needs Meeting FY 2009-2010

The unmet needs meeting held jointly between the NCTC and the Placer County Transportation Planning Agency (PCTPA) occurred on November 5, 2009. This meeting generated the following comments regarding unmet transit needs in Truckee:

- Some Sierra Senior Services clients must wait up to 45 minutes for the Dial-A-Ride services.
- The Town should have a message board / reporting process for Dial-A-Ride complaints.
- There needs to be an eligibility process for Dial-A-Ride users that is priority based.
- Service should be implemented to the Rideout Community Center for seniors and children.
- The new Rec Center in Truckee will need a bus shelter.
- Service should be implemented to Sierra College in Truckee.
- The need for service on SR 89 is equal to the need on SR 267. Service is lacking for a large tourist market, especially in the summer, on SR 267.
- There should be year round service on SR 267.
- Sierra Senior Services received a grant to provide quarterly transportation access to Sacramento and Reno.

Unmet Needs Meeting FY 2010-2011

On November 6, 2010 the NCTC and the PCTPA held a joint public workshop to discuss unmet transit needs in the Truckee and North Tahoe areas. The following comments were made at this meeting with respect to transit in Truckee:

- The need for year-round fixed route service on SR 267 between the Town of Truckee and Kings Beach.
- The need for out-of-area transportation to Auburn, Nevada City, Reno and Sacramento for medical and/or county services.
- There was a request to develop a regional Social Service Transportation Advisory Committee that addresses Resort Area Triangle social service transportation issues.
- Request for transit service from Kings Beach to the Sierra College campus in Truckee.
- Additional on-demand or increased fixed route transit services to the Sierra Senior Services senior apartment housing in Truckee.
- Placement of a bus shelter at the Truckee Regional Park was requested.

- Consider a cooperative agreement between school buses and public transit and also consider carrying mail and packages.
- There is a need for bus shelters on both sides of SR 89 near the Gateway Shopping Center.
- Paratransit services are needed by disabled residents that must travel between Kings Beach and the Town of Truckee.
- The bus shelter on Donner Pass Road in front of the Dairy Queen needs a trash receptacle.
- There is a need to provide a way to increase the number of bicycles that can be transported on the buses.
- The addition of an earlier and later run on the TART bus between Tahoe City and the Town of Truckee would better accommodate work schedules.
- Fixed route transit service to Tahoe Donner and Glenshire subdivisions was requested.

Unmet Needs Meeting FY 2011-2012

The NCTC and the PCPTA held a joint workshop on November 3, 2011 to discuss unmet transit needs in Truckee and North Tahoe. The following comments were made:

- The need for year-round fixed route service on SR 267 between the Town of Truckee and Kings Beach.
- The need for out-of-area transportation to Auburn, Nevada City, Reno and Sacramento for medical and/or county services.
- There was a request to develop a regional Social Service Transportation Advisory Committee that addresses Resort Area Triangle social service transportation issues.
- Explore transportation options for youth, seniors and other community members to provide access to after school programs and community programs. Youth who reside in Tahoe Donner have a difficult time accessing programs at the Truckee High School. Community members also indicated that transit services do not match the schedule for the majority of cases offered at Sierra College – students can get to class but cannot get home using public transit.
- Transit operators should explore increasing the frequency and hours of the fixed route transit systems because the limited hours of operation make it difficult for local residents to utilize the system as their primary mode of transportation.
- Consider expanding the service hours of Truckee Dial-A-Ride when funding permits. It is difficult to get a ride after 3:00 PM, and Sunday service would improve the mobility of residents and seniors in Truckee.
- The Estates Drive stop is not a safe location for seniors to wait due to its proximity to the highway. An alternate pick-up location could be at the Truckee Donner Senior Apartments.
- The Town of Truckee Transit Service should start earlier than 9:00 AM.
- The addition of an earlier and later run on the TART bus between Tahoe City and the Town of Truckee would better accommodate work schedules.
- Fixed route transit service to Tahoe Donner and Glenshire subdivisions was requested.

Community Collaborative of Tahoe Truckee

In November 2011, the Community Collaborative of Tahoe Truckee gathered input from its member organizations on transit needs in Truckee/North Lake Tahoe:

- Year round fixed route bus access on Highway 267
- Develop a regional Social Service Transportation Advisory Committee to address Resort Area Triangle social service transportation issues

- Address Serra College transportation issues
- Extend fixed route transportation into Sierra Senior Services and Rideout Community Center to accommodate Senior Citizens

Placer County Transportation Planning Agency Unmet Needs

In western Placer County, some TDA funds were spent on streets and roads. PCTPA therefore conducts a formal unmet needs process. In Fiscal Year 2004-2005 the PCTPA Board approved a finding that year round service between Truckee and Kings Beach on SR 267 provided by TART via a new or combined route that connects Truckee, Northstar and Kings Beach is an unmet transit need that is reasonable to meet on a conditional basis. In 2010, the PCTPA Board amended their original finding to read:

- *Year round service between Truckee and Kings Beach on SR 267 provided by TART via a new or combined route that connects Truckee, Northstar and Kings Beach continues to be an unmet transit need that is reasonable to meet on a conditional basis to adopted TART Systems (Short Range Transit) Plan recommendations. Implementation of year round service is contingent upon development of a multi-year funding plan, which demonstrates a financial commitment toward the service by jurisdictions and partners, including those outside of PCTPA's purview.*

In 2011, there were no new unmet transit needs that were determined to be reasonable to meeting for the 2010-2011 fiscal year. There was, however, a recommendation based on comments received regarding non-emergency medical / health trips in the North Tahoe and Truckee areas. The recommendation to address the potential unmet transit needs is as follows:

- *PCTPA, NCTC and TRPA should jointly pursue grant funding opportunities to assess whether this potential unmet transit need can be found reasonable to meet or not.*

TRANSIT DEMAND AND TRANSIT NEEDS SUMMARY

A key step in developing and evaluating transit plans is a careful analysis of the transit demand and needs of various segments of the population and the potential ridership of transit services. The discussion below summarizes relevant data collected in the previous chapters and reviews the potential transit demand which stems from four categories:

- Transit Dependent Transit Demand
- Employee Transit Demand
- Human Service Program – Related Transit Demand
- Visitor Demand

Transit Dependent Demand

Senior Transit Demand

In rural areas, the majority of transit passengers are typically "transit dependent," which includes the senior population. Looking more closely at the Census data discussed earlier shows

that the Donner Lake and Tahoe Donner region (Census Tract 12.04) includes a high concentration of elderly residents. The areas within Census Tract 12.06 also have a high senior population, largely due to the Tahoe Donner Senior Apartments located on Estates Drive. This apartment complex is served by both fixed route and Dial-A-Ride services. Driver log data for the month of February, August and October 2012 of Dial-A-Ride service shows that seniors account for roughly 28 percent of ridership on the service, with an average of 9 trips per day.

Also important to consider is the aging of the population. According to the California Department of Finance, the Nevada County population age 65 and older will increase by 3.7 percent annually between 2010 and 2020. While this figure is countywide, one can assume that Truckee will also experience an increase in elderly populations, particularly since Truckee is a popular area for retirees.

Disabled Transit Demand

In addition to seniors, the disabled population generally comprises a large portion of local transit services, particularly in rural areas. According to driver log data collected from Truckee Transit, roughly 31 percent of ridership on the Dial-A-Ride service was from disabled passengers (including those that require wheelchairs), or an average of 10 trips per day. Neighborhoods with higher proportions of disabled residents include the Sierra Meadows and Glenshire areas, neither of which are currently served by the fixed routes. However, mobility limited residents are less likely to use fixed route services over demand response services; both neighborhoods are within the Truckee Dial-A-Ride service area.

The *ADA Paratransit Handbook,* 1991, states that roughly 1.5 percent of the nation's population is ADA paratransit eligible due to:

- Being unable to board, ride or disembark from a vehicle even if they are able to get to the bus stop and even if the vehicle is wheelchair-accessible, or

- Having a specific impairment-related condition and cannot travel to a boarding location or from a disembarking location to their final destination.

Applying this 1.5 percent figure to the Study Area population in 2011 (19,507 persons), we can estimate that approximately 292 persons may be eligible for ADA paratransit service. The *ADA Paratransit Handbook* references low and high trip rates for ADA eligible individuals of 1.2 and 4.4 trips per person per month in rural areas. By applying this rate, Truckee would have a potential low ridership demand of 4,200 ADA annual one-way passenger-trips per year and a potential high ridership demand of 15,400 annual one-way passenger-trips per year. The average of these two figures is 9,800 annual one-way passenger-trips per year. Actual ridership in Fiscal Year 2011-12 for senior and disabled persons on Truckee Dial-A-Ride was 11,797 passenger-trips. Considering that roughly 31 percent of Dial-A-Ride ridership is from disabled passengers, one can assume that 3,657 passenger-trips in FY 2011-12 were completed by disabled passengers. This does not vary much from the low ridership potential from the ADA demand estimation discussed above.

Given the general characteristics of Truckee, including steep terrain, inclement weather and relatively few services, it is unlikely that the disabled population will grow substantially to

generate an increased demand of 9,800 passenger-trips or more. However, there is room for more disabled transportation demand and needs.

Youth Transit Demand

Youths typically utilize transit for social purposes as well as for school trips. As such, it is important to consider the demand and needs associated with this population group. A review of the US Census data discussed earlier shows that the greatest numbers of youths reside in Census Tract 12.06 (Gateway, Prosser Lakeview, Ponderosa Palisades and Downtown) and Census Tract 12.05 (Glenshire). In the case of the former, Truckee Transit provides fixed route and demand response service to many of these areas. With respect to Glenshire, Dial-A-Ride serves the area with two scheduled stops each day. Additionally, the Truckee fixed route does provide service to the high school year round, as well as a number of other school locations. However, this is not beneficial to students who would rely on public transit but whose residences are not served, such as those in the Tahoe Donner neighborhoods, for example.

Zero Vehicle Households

The mobility gap methodology is used to identify what amount of service is required to provide an equal amount of service to households that have access to vehicles and those that do not. The National Personal Transportation Survey (NPTS) provides data that allow for calculations to be made relating to trip rates.

Trip rates for zero-vehicle households in rural areas of the California region of the nation were determined to be 3.3 daily one-way trips. For rural households with at least one vehicle, the trip rate was 5.8 daily one-way trips. The mobility gap is calculated by subtracting the daily trip rate of zero-vehicle households from the daily trip rate of households with at least one vehicle. Thus, the mobility gap is calculated at 2.5 household one-way trips per day for this region.

To calculate the transit need for each subarea of the study area, the number of zero-vehicle households is multiplied by the mobility gap number. Table 24 shows this information broken out for the Census Tracts in the study area.

In general, this approach establishes a level of transit need. As shown, a relatively low level of transit need is identified for the study area. In total, 803 daily one-way person-trips need to be provided via transit to make up for the gap in mobility. Census Tract 12.06 has the greatest need, with 563 one-way daily trips. This higher figure compared to other areas is a result of greater population, as well as the most households with no vehicles. The remaining areas of Truckee generate roughly the same amount of need based on the mobility gap estimations, with a need of 38 to 188 daily one-way passenger trips.

Additionally, because transit service is available through both Truckee Transit and TART in the neighborhoods that comprise Census Tract 12.06, some of the transit needs identified through the above methodology may already be served. Further, the above outputs are indicative of general demand and may not actually be associated with the need for trips to outlying areas such as Reno, Lake Tahoe or Sacramento.

TABLE 24: Mobility Gap Analysis of Potential Transit Need

Census Tract	Area	2010 Demographics: Population	Households	Households With No Vehicle	Mobility Gap	Transit Need (Daily Trips)
9	Eastern Nevada County outside of Truckee (Floriston and Donner	3,475	1,509	47	2.5	**118**
12.03	Tahoe Donner (Eastern Portion)	3,118	1,278	39	2.5	**98**
12.04	Donner Lake, Tahoe Donner (Western Portion)	2,885	1,360	42	2.5	**105**
12.05	Glenshire	4,359	1,577	15	2.5	**38**
12.06	Gateway, Prosser Lakeview, Ponderosa Palisades, Downtown	5,670	2,141	225	2.5	**563**
					Total Transit Need	***803***

Sources: TCRP Web-Only Document 49: Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation; 2011 American Community Survey 5-Yr Estimates

Employee / Commuter Transit Demand

According to commute pattern data discussed earlier from the US Census, a large proportion of Study Area residents work within the Town of Truckee or travel to neighboring Placer County for work at the ski resorts, Tahoe City or other North Lake Tahoe areas. This indicates a rather high potential for residents of the Study Area to use public transit for commute purposes. Based on the locations of office buildings/complexes, shopping and dining, medical and social service locations, Truckee employment centers are generally located in central Truckee and near the existing transit routes. However, while employment locations are served, many residential locations are not directly served by the fixed route. Glenshire, the Alder Creek neighborhood, Tahoe Donner and Ponderosa Palisades are examples, as reflected in the traffic model analysis. It can be assumed that if a high level of service could be provided to these neighborhoods, there may be demand for commuter transit services between some of the outlying neighborhoods and central Truckee.

Based on the commute pattern data, it is possible to estimate potential commute transit ridership for each of the key travel corridors connecting Truckee with neighboring areas. The TCRP B-36 study, *Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation*, includes methods for determining commute between rural areas (Truckee) and more urbanized areas (such as Reno). The methodology assumes that roughly 1.2 percent of the total number of commuters from a rural area to other areas will utilize public transit, based upon observed transit utilization rates for corridors already provided with service. A higher proportion of transit travel mode typically occurs for trips from outlying areas to larger employers in a rural area; a 3.0 percent transit mode split is applied for commuters who travel to the Truckee employment sites.

Table 25 shows the commute demand for workers traveling into and out of the Study Area. As shown, there is a much higher demand for commuters coming into Eastern Nevada County, with the greatest one-way trips from the Reno / Sparks area. The demand analysis resulted in a potential for 27 total one-way passenger trips, with 20 trips from Reno / Sparks to the Truckee area. Demand from the greater Grass Valley / Nevada City area generated a total of 17 one-way trips, with 13 trips representing commutes into the Study Area. Between North Lake Tahoe and Eastern Nevada County, the analysis shows that there are 12 potential one-way trips, with the greatest proportion of trips beginning in North Lake Tahoe and ending in the Truckee area. Lastly, a relatively low number of potential commute trips are generated between the Sacramento / Auburn area, with only a total of 8 one-way trips.

TABLE 25: Commuter Demand

	# Persons Commuting			Potential Demand (One-Way Pass. Trips)		
Travel Between Study Area and ……..	From Study Area	To Study Area	Total	From Study Area	To Study Area	Total
Reno / Sparks	539	670	1,209	6	20	27
North Lake Tahoe	432	241	673	5	7	12
Sacramento / Auburn	238	173	411	3	5	8
Grass Valley / Nevada City	284	445	729	3	13	17

Source: TCRP B-36 Study; US Census Bureau. Excludes seasonal workers not reflected in Census data.

The actual potential ridership would be lower than these overall demand estimates, given that specific transit schedules could not match all possible commute times. Further, commute demand between North Lake Tahoe and Truckee may be lessened considering that existing transit services may meet a portion of this demand. While it bears noting that these estimates do not reflect additional demand associated with seasonal workers (not captured in the Census data), overall these estimates indicate that commuters would be better served by expansion of vanpool / carpool programs rather than additional fixed-route transit service.

Human Service Agency Related Demand

Another major element of transit demand is ridership generated from human service programs or agencies. Given that there are little to no transportation options directly with these entities, demand may be rather high. A review of Dial-A-Ride driver sheets showed that roughly 32 percent of total ridership is subscription trips associated with Choices / Alta Regional Center and special education students. As evidenced by this high proportion of subscription trips, local agencies work closely with Truckee Dial-A-Ride to transport their clients to and from programs. Alta Regional Center / Choices clients account for 9 average daily trips, and special education students account for 2.5 average daily trips. Input from the previous ADA paratransit planning

process in 2007 and on-board surveys through the 2009 Transit Development Plan indicated that there is more demand for Dial-A-Ride service than the level of service available.

A common comment received through the public outreach process, as well as from previous studies, is that out of area medical and social services are difficult to access for many clients. Four primary locations were identified where service is needed – 1) Reno for medical appointments, 2) Grass Valley for County services that are not available locally, 3) the Auburn area for medical and other social services, and 4) North Lake Tahoe (Kings Beach) for other social service agency needs. The provision of non-emergency medical transportation for Truckee residents to nearby urban areas has been identified in multiple studies as an important transit need. Specialized medical services such as dialysis and chemotherapy are not readily available in the Truckee. The closest dialysis clinics are located in Carson City and Reno. Tahoe Forest Hospital in Truckee provides chemotherapy treatment for cancer patients, and is currently developing a new cancer center.

The Nevada County Transportation Commission developed a Coordinated Human Services Transportation Plan for Nevada County in 2008. Transit needs identified in the study which are pertinent to this plan include:

- The Health and Human Services Agency in Truckee indicated that the window for medical appointments in Kings Beach is very narrow (from 11:00 AM to 2:00 PM) due to the infrequent service on the Truckee Trolley.
- Stakeholders listed medical facilities to which transportation was needed, which included UC Davis Medical Center and Shriners' Hospital in Sacramento, hospitals in Reno and Auburn, and dental clinics in Sacramento and Marysville.

Visitor Demand

As a tourist oriented region, there is a potential for significant visitor transit demand in Truckee and the surrounding area. However, many second home owners tend to live in outlying neighborhoods that are not directly served by transit. A review of dwelling units from the Truckee traffic model shows that roughly 47 percent (5,701 units) of all dwelling units in the Town of Truckee (and Martis Valley) are considered part-time. Of these, 5,019 are single-family and 682 are multi-family. The vast majority (68.5 percent) of part-time dwelling units were located in Tahoe Donner, with 3,908 units located in this neighborhood. The second greatest location was in the Donner Lake neighborhood, with 869 part-time units (15.2 percent of total part-time dwelling units). Unless a very high level of transit service were provided deep within the community of Tahoe Donner, it is unlikely that visitors would leave their personal vehicles at home to ride the bus.

Lodging properties in Truckee tend to be located along the Donner Pass Road and the SR 267 corridors, both of which are served by transit. The winter fixed route serves the needs of visitors staying at lodging properties who wish to ski at Tahoe Donner, and TART services connect to Northstar, Squaw Valley and Alpine Meadows. Summer service is more limited, with no routes operating between Truckee and Northstar, thereby providing no access to or from the North Lake Tahoe area via SR 267.

Chapter 5
Service Alternatives

INTRODUCTION

The basis for any transit plan is the development of an effective and appropriate service strategy. The types of service provided, their schedules and routes, and the quality of service can effectively determine the success or failure of a transit organization. Based on the service plan, capital requirements, and funding requirements, the appropriate institutional and management strategies can be determined.

Following an examination of the existing conditions for transit service, the services currently provided, and the potential transit demand, a number of service alternatives have been evaluated and are presented in this chapter. The service alternatives are specifically intended to respond to perceived "gaps" in service, such as targeted markets or to address existing inefficient services. Each service alternative is described, including operating characteristics, financial characteristics, and capital requirements.

FIXED ROUTE SERVICE ALTERNATIVES

Provide Consistent Fixed Route Transit Service within Truckee Year Round

Truckee Transit currently operates two separate schedules during the year. The Winter Shuttle (December through March) operates to Donner Summit, and allows for an early morning and later evening run to accommodate ski resort employees. There are two early morning runs (6:00 AM and 6:45 AM), two mid to late morning runs (8:52 AM and 11:34 AM), and two afternoon runs (2:45 PM and 4:45 PM). Two of the main issues with the Winter Shuttle schedule are the infrequent running times (roughly 3 hour headways), and the three hour break from service between 11:45 AM and 2:45 PM. This leaves many residents without any means of transportation during the middle of the day. During the remainder of the year, the service is more consistent, operating at hourly headways between 9:05 AM and 4:05 PM, with the exception of a one hour mid-day break. Unfortunately, this schedule does not accommodate much of the transit needs, particularly by commuters as there is no service during common commute times at 8:00 AM or 5:00 PM.

In an effort to provide more reliable and consistent transit service for both residents and visitors, the schedule could be revised to operate the same service plan year round, and extending the hours of operation. The most feasible way to achieve this would be to add one morning and one evening run to the off-season schedule. The Winter Shuttle would continue to be operated independently of this service, continuing to offer service to the Donner Summit area. However, this service would be revised to eliminate overlap between the two services.

In general, this alternative would include the following components:

- Add two additional morning runs at 7:05 AM and 8:05 AM and an evening run at 5:05 PM, creating hourly headways. There would also be a midday run added to eliminate the gap in service at 1:05 PM. It is assumed that service would be operated 7 days per week all year.

- Revise the Winter Shuttle to be more streamlined:

  - Begin service at the Truckee Train Depot instead of Henness Flats.
  - Limit stops between the Train Depot and Donner Lake, so as to minimize overlap and decrease running time.
  - Provide for transfers between regular fixed-route and shuttle at the Truckee Train Depot.
  - Return to the Train Depot via I-80 (eastbound) with no stops, rather than Donner Pass Road, to decrease running time.

- Year-round service would include stops at the Crossroads Shopping Center, as well as on-call stops at the Hampton Inn and Pioneer Commerce Center.

One major benefit to the Town with this alternative would be the increased revenues. Under the current plan, the Winter Shuttle service that also provides standard fixed route service is free in the winter season. By offering year round service in addition to a separate Winter Shuttle, farebox revenues will increase. The fare for the new service would be consistent with existing fixed route fares - $2.50 for adults, $1.00 for seniors, children under 3 years old ride free. Additionally, passengers riding the separate Winter Shuttle just within the "flats" of Truckee (Train Depot to West End) would pay the fixed route fare for their respective category. Note that employees of the ski areas would not be charged a fare, and would need to show an employee pass when boarding the bus.

With this alternative, there are two scenarios regarding the winter service – a one bus option and a two bus option – as discussed in more detail below.

Consistent Year Round Service with Winter One Bus Option

Year Round Service

The first option includes year round fixed route service throughout the Town using one bus, as shown in the schedule in Table 26. The bus would begin service at 7:05 AM at Henness Flat, and would provide hourly headways throughout the day with no gap in service, with the last departure at 5:50 PM. Service to the West End / Donner Lake area would be provided every other run, based on an analysis of the current boarding and alighting activity at those stops. This would allow for service to the Crossroads shopping center on every run in both directions, as well as to adequately serve the West End neighborhood. During the runs that do not serve the West End, a 10 minute driver break is provided; other runs do not have a break. Overall, this service plan provides a necessary driver break every two hours. The proposed schedule would continue to allow for connections to TART at the Train Depot, with the bus arriving roughly at the same time as in the current schedule.

This schedule would require 11 daily vehicle-service hours instead of the 7 vehicle-service hours in the current program. No new vehicles would be required for this alternative.

TABLE 26: Fixed Route Year-Round Truckee Local Service Schedule

Stop	Time											
Eastbound												
West End Beach	--	7:42	--	9:42	--	11:42	--	1:42	--	3:42	--	5:42
Sticks Market	--	7:45	--	9:45	--	11:45	--	1:45	--	3:45	--	5:45
Donner State Park	--	7:47	8:47	9:47	10:47	11:47	12:47	1:47	2:47	3:47	4:47	5:47
Chevron / Unocal	--	7:48	8:48	9:48	10:48	11:48	12:48	1:48	2:48	3:48	4:48	5:48
Tri-Counties Bank Plaza	--	7:49	8:49	9:49	10:49	11:49	12:49	1:49	2:49	3:49	4:49	5:49
Northwoods	--	7:50	8:50	9:50	10:50	11:50	12:50	1:50	2:50	3:50	4:50	5:50
Wild Cherries @ Donner Plass Road	--	7:51	8:51	9:51	10:51	11:51	12:51	1:51	2:51	3:51	4:51	5:51
Crossroads Center (SaveMart / CVS)	--	7:55	8:55	9:55	10:55	11:55	12:55	1:55	2:55	3:55	4:55	5:55
Bank of America	--	7:57	8:57	9:57	10:57	11:57	12:57	1:57	2:57	3:57	4:57	5:57
Hospital	--	7:58	8:58	9:58	10:58	11:58	12:58	1:58	2:58	3:58	4:58	5:58
Train Depot	--	8:01	9:01	10:01	11:01	12:01	1:01	2:01	3:01	4:01	5:01	6:01
Pioneer Commerce Center (On Request)	--	8:02	9:02	10:02	11:02	12:02	1:02	2:02	3:02	4:02	5:02	6:02
Rec Center	--	8:04	9:04	10:04	11:04	12:04	1:04	2:04	3:04	4:04	5:04	6:04
Henness Flats	--	8:05	9:05	10:05	11:05	12:05	1:05	2:05	3:05	4:05	5:05	6:05
Westbound												
Henness Flats	7:05	8:05	9:05	10:05	11:05	12:05	1:05	2:05	3:05	4:05	5:05	
Airport	7:09	8:09	9:09	10:09	11:09	12:09	1:09	2:09	3:09	4:09	5:09	
Hampton Inn (On Request)	7:10	8:10	9:10	10:10	11:10	12:10	1:10	2:10	3:10	4:10	5:10	
Larkspur Inn / The Rock	7:13	8:13	9:13	10:13	11:13	12:13	1:13	2:13	3:13	4:13	5:13	
Village Green / Reynolds Way	7:14	8:14	9:14	10:14	11:14	12:14	1:14	2:14	3:14	4:14	5:14	
Estates Drive / Senior Apartments	7:16	8:16	9:16	10:16	11:16	12:16	1:16	2:16	3:16	4:16	5:16	
7-11 / Regional Park	7:17	8:17	9:17	10:17	11:17	12:17	1:17	2:17	3:17	4:17	5:17	
Train Depot (Connect to TART)	7:19	8:19	9:19	10:19	11:19	12:19	1:19	2:19	3:19	4:19	5:19	
Hospital	7:22	8:22	9:22	10:22	11:22	12:22	1:22	2:22	3:22	4:22	5:22	
Panda Express / Safeway	7:23	8:23	9:23	10:23	11:23	12:23	1:23	2:23	3:23	4:23	5:23	
Crossroads Center (SaveMart / CVS)	7:27	8:27	9:27	10:27	11:27	12:27	1:27	2:27	3:27	4:27	5:27	
Mountain Hardware	7:30	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30	
7-11 @ Donner Pass Road	7:31	8:31	9:31	10:31	11:31	12:31	1:31	2:31	3:31	4:31	5:31	
Northwoods	7:32	8:32	9:32	10:32	11:32	12:32	1:32	2:32	3:32	4:32	5:32	
Smokey's Kitchen	7:33	8:33	9:33	10:33	11:33	12:33	1:33	2:33	3:33	4:33	5:33	
Chevron / Unocal	7:34	8:34	9:34	10:34	11:34	12:34	1:34	2:34	3:34	4:34	5:34	
Donner State Park	7:36	8:36	9:36	10:36	11:36	12:36	1:36	2:36	3:36	4:36	5:36	
Sticks Market	7:38	--	9:38	--	11:38	--	1:38	--	3:38	--	5:38	
West End Beach	7:42	--	9:42	--	11:42	--	1:42	--	3:42	--	5:42	

Winter Shuttle Service

For the winter service, the more cost effective option is to operate a single bus from downtown Truckee to Boreal Ridge Ski Resort. Between Donner Lake and Soda Springs, the bus would operate a large loop (Old US 40 and I-80) in the clockwise direction. Under this scenario, stops are minimized along Donner Pass Road so as to reduce overlap between the year round fixed-route and Winter Shuttle services. In addition to reducing the stops, this route would not serve all of the ski areas in the eastbound direction. Instead, the bus would travel eastbound to Truckee via I-80 to the Donner Lake Interchange, where it would then travel south on Donner Lake Road and along Donner Pass Road, serving the West End through downtown. While a more cost effective option, this schedule would not be convenient for persons traveling between the Sugar Bowl Academy and Boreal. In order to take a return trip, passengers would have to board the bus in the westbound direction, which limits their trip options, particularly in the afternoon. It would also require a long travel time for trips between Truckee and Boreal, as well as between Sugar Bowl and Truckee. This alternative is graphically depicted in Figure 15.

As shown in Table 27, the bus would begin service at the Truckee Train Depot at 7:00 AM and would provide service on 2-hour headways until 1:00 PM; service would resume for a final run one hour later, starting at 4:00 PM. In total, this schedule consists of five daily runs. The last arrival at the Truckee Train Depot is at 5:51 PM, which would allow for connections to the fixed-route for persons traveling to Henness Flats. However, beyond that stop, no other service would be available in the westbound direction.

This schedule would require a total of 9.85 daily vehicle-service hours, which is a 3.5 hour reduction in service from the existing schedule. However, since fixed route service would be provided separately (and with more hours), it is not effectively reducing the level of service provided in Truckee overall.

Data presented in *Earlier chapters* regarding the on-board survey showed that approximately 47 percent of passenger activity (boardings and alightings) in the westbound direction occurred in the Donner Summit area (Sugar Bowl Academy to Boreal Ridge Ski Resort), primarily alightings. In the eastbound direction, 64 percent of all activity occurred in the Donner Summit area, with more passengers getting on the bus. This data suggests that a large majority of passengers were using the Winter Shuttle for trips to and from the ski areas. So long as adequate service is provided, a significant drop in ridership on the Winter Shuttle service is not anticipated. Conversely, there is likely to be a decrease in winter ridership on the fixed route service. However, this could be mitigated by improved operating hours that may meet the needs of more residents, such as commuters.

Operating Costs and Ridership Impacts

As with the addition of any new or expanded service, operating costs will increase. Under this option, costs are expected to increase by $129,800 for the combined year round and Winter Shuttle components, as shown in Table 28. This increase is entirely attributed to the expanded year round service, and is offset slightly by a decrease in operating costs for the Winter Shuttle (due to reduced hours and vehicles needed).

FIGURE 15

Year Round Fixed Route+ Winter Shuttle with One Bus

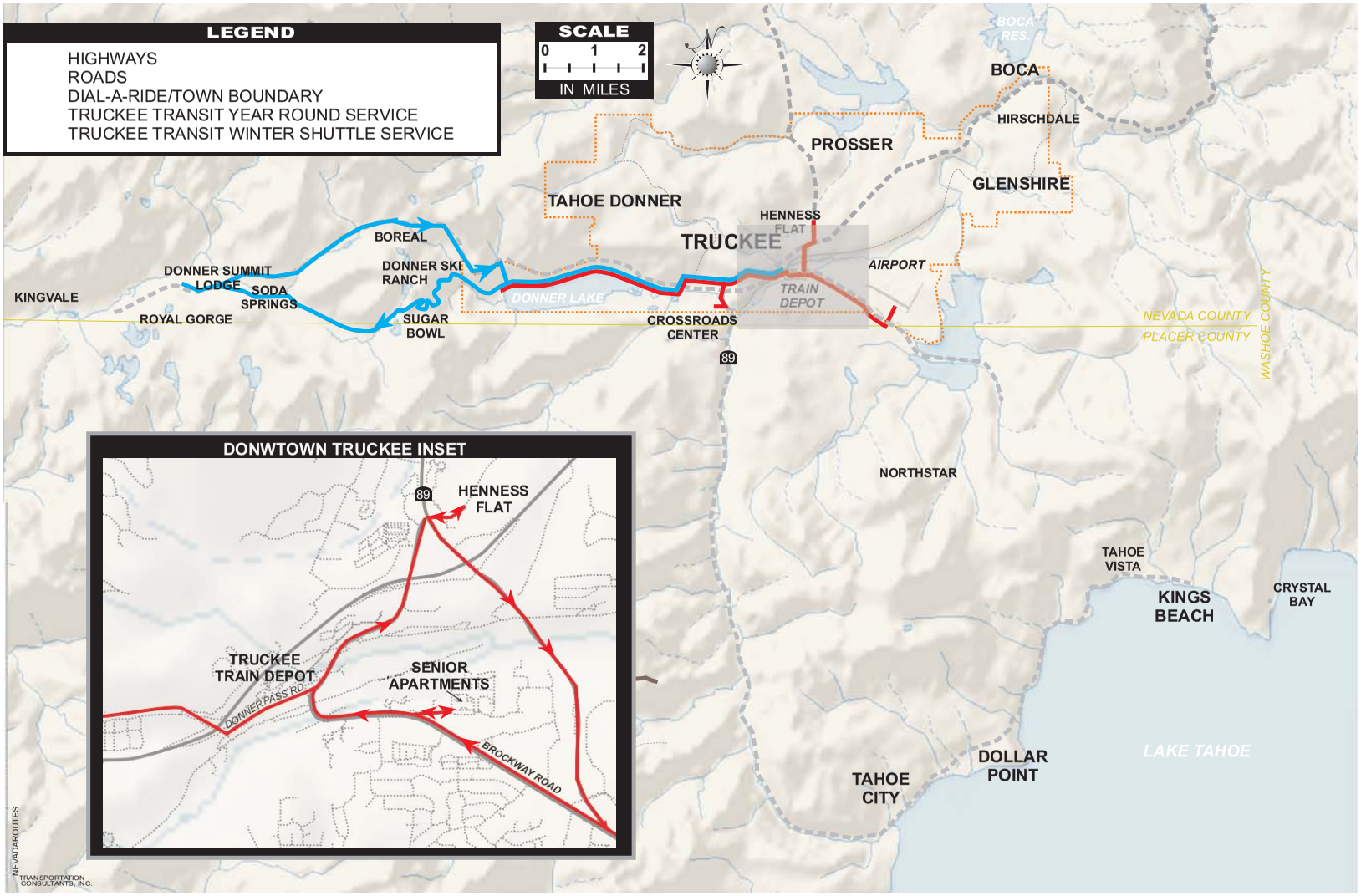


TABLE 27: Streamlined Winter Service Schedule - 1 Bus Option

Stop	Time (Clockwise Runs)					
Eastbound						
Boreal Ridge Ski Resort	--	8:22 AM	10:22 AM	12:22 PM	2:22 PM	5:22 PM
Bus travels Eastbound I-80 and exits @ Donner Lake Road						
Donner Pass Rd @ South Shore Dr	--	8:32 AM	10:32 AM	12:32 PM	2:32 PM	5:32 PM
Sticks Market	--	8:35 AM	10:35 AM	12:35 PM	2:35 PM	5:35 PM
Truckee Donner Lodge	--	8:38 AM	10:38 AM	12:38 PM	2:38 PM	5:38 PM
Donner Pass Rd @ Northwoods Blvd	--	8:42 AM	10:42 AM	12:42 PM	2:42 PM	5:42 PM
Old Middle School Park and Ride		8:44 AM	10:44 AM	12:44 PM	2:44 PM	5:44 PM
Donner Pass Rd @ Bank of America	--	8:47 AM	10:47 AM	12:47 PM	2:47 PM	5:47 PM
Truckee Train Depot	--	8:51 AM	10:51 AM	12:51 PM	2:51 PM	5:51 PM
Westbound						
Truckee Train Depot	7:00 AM	9:00 AM	11:00 AM	1:00 PM	4:00 PM	--
Gateway Center	7:04 AM	9:04 AM	11:04 AM	1:04 PM	4:04 PM	--
Old Middle School Park and Ride	7:06 AM	9:06 AM	11:06 AM	1:06 PM	4:06 PM	--
Donner Pass Rd @ Northwoods Blvd	7:08 AM	9:08 AM	11:08 AM	1:08 PM	4:08 PM	--
Truckee Donner Lodge	7:12 AM	9:12 AM	11:12 AM	1:12 PM	4:12 PM	--
Sticks Market	7:16 AM	9:16 AM	11:16 AM	1:16 PM	4:16 PM	--
Donner Pass Rd @ South Shore Dr	7:19 AM	9:19 AM	11:19 AM	1:19 PM	4:19 PM	--
Sugar Bowl Academy	7:28 AM	9:28 AM	11:28 AM	1:28 PM	4:28 PM	--
Mt Judah Day Lodge	7:32 AM	9:32 AM	11:32 AM	1:32 PM	4:32 PM	--
Donner Ski Ranch	7:38 AM	9:38 AM	11:38 AM	1:38 PM	4:38 PM	--
Sugar Bowl Gondola	7:41 AM	9:41 AM	11:41 AM	1:41 PM	4:41 PM	--
Tri Lodges	7:43 AM	9:43 AM	11:43 AM	1:43 PM	4:43 PM	--
Donner Pass Road @ Soda Springs Rd	7:48 AM	9:48 AM	11:48 AM	1:48 PM	4:48 PM	--
Soda Springs Ski Resort	7:49 AM	9:49 AM	11:49 AM	1:49 PM	4:49 PM	--
Pahatsi Rd @ Yuba Dr	7:51 AM	9:51 AM	11:51 AM	1:51 PM	4:51 PM	--
Royal Gorge XC Ski Resort	7:53 AM	9:53 AM	11:53 AM	1:53 PM	4:53 PM	--
Soda Springs Rd @ Donner Pass Rd	7:58 AM	9:58 AM	11:58 AM	1:58 PM	4:58 PM	--
Soda Springs General Store	8:03 AM	10:03 AM	12:03 PM	2:03 PM	5:03 PM	--
Donner Summit Lodge	8:05 AM	10:05 AM	12:05 PM	2:05 PM	5:05 PM	--
Boreal Ridge Ski Resort	8:12 AM	10:12 AM	12:12 PM	2:12 PM	5:12 PM	--

For ridership, passenger-trips by hour data for similar mountain resort areas were reviewed, specifically for the hours of the new service. Upon determining a percentage increase based on this data, in this case roughly 25 percent, the existing base ridership was factored to reflect the change. The result shows that ridership will increase by roughly 3,600 passengers annually, or 7 passenger-trips per day due to more consistent service and additional runs. The Winter Shuttle is not expected to change. Total annual ridership is estimated to be 12,500 passenger-trips per year on the Truckee Local fixed route and 6,800 on the Truckee – Donner Summit winter service, for a total of 19,300.

The increased ridership, along with year round fares being collected, will increase the farebox revenue by $19,500 annually. Subtracting this from the operating costs, the additional subsidy

TABLE 28: Truckee Transit Service Alternatives

Alternative	Total Annual Vehicle Miles	Total Annual Vehicle Hours	Total Annual Operating Cost	Ridership Impact (One-Way Trips) Daily	Ridership Impact (One-Way Trips) Annual	Annual Farebox Revenue	Annual Subsidy Required
Status Quo							
Operating Costs	107,463	6,830	$524,000	87	28,300	$70,240	$453,760
Fixed Costs	--	--	$83,774	--	--	--	--
Subtotal	107,463	6,830	$607,774	87	28,300	$70,240	$537,534
Fixed Route Alternatives							
Operate More Consistent Transit Service Year Round + Streamlined Winter Service - 1 Bus Option	28,720	1,660	$129,800	11	3,600	$19,500	$110,300
Operate More Consistent Transit Service Year Round + Streamlined Winter Service - 2 Bus Option	31,710	2,060	$157,400	18	4,300	$19,500	$137,900
Operate More Consistent Transit Service Year Round + Streamlined Winter Service - 2 Bus Option, with No Off-Season Sunday Service and 8 Hours on Saturday	21,993	1,535	$115,700		3,400	$17,390	$98,310
Streamlined Winter Service Only	4,190	-9	$3,670	7	680	$0	$3,670
Dial-A-Ride Alternatives							
Provide 3 Daily Service Trips from Senior Apartments - Reduced $1.00 Fare	0	0	$0	1	360	-$1,070	$1,070
Provide 3 Daily Service Trips from Senior Apartments - Maintain $2.00 Fare	0	0	$0	0	0	$0	$0
Reduce DAR Service Hours - Existing Level of Service	0	-468	-$28,500	0	0	$0	-$28,500
Reduce DAR Service Hours - DAR Only in Areas Not Served by Fixed Route	-5,190	-780	-$52,700	-6	-1730	-$1,680	-$51,020
Reduce DAR Service Hours - DAR Only for Disabled and Senior Passengers	-2,580	-936	-$59,500	-3	-860	-$3,390	-$56,110

Source: LSC Transportation Consultants, Inc., 2013

required to operate this alternative is $110,300 per year. This does not include the contributions made from the ski resorts (which are considered farebox revenues for purposes of TDA calculations).

Consistent Year Round Truckee Local Service with Winter Two Bus Option

Another option would be to operate two buses for the Winter shuttle service; the fixed-route service described above would remain the same. The intent of this schedule would be to provide better service to the ski areas between Sugar Bowl Academy and Boreal Ridge Ski Resort, particularly for ski area employees.

Winter Shuttle Service

Table 29 presents the potential two-bus Winter Shuttle schedule. As shown, service would start at 7:00 AM with a departure from the Truckee Train Depot.

- Bus #1 would operate as presented in the one-bus option, with service starting at 7:00 AM and running in a clockwise Summit loop until 5:51 PM (arrival at the Train Depot). Return service would be limited, as described in the one-bus option, with the bus traveling down I-80 after Boreal Ridge. Bus #1 would be providing arrivals to all ski areas, and an express return from Boreal to Truckee.

TABLE 29: Streamlined Winter Service Schedule - 2 Bus Option

Stop	Time (Clockwise Runs)									
	Bus 1 Clockwise	Bus 2 Counter-Clockwise	Bus 1 Clockwise	Bus 2 Counter-Clockwise	Bus 1 Clockwise	Bus 1 Clockwise	Bus 1 Clockwise	Bus 2 Counter-Clockwise	Bus 2 Counter-Clockwise	Bus 1 Clockwise
Eastbound										
Boreal Ridge Ski Resort	--	--	8:22 AM	8:30 AM	10:22 AM	12:22 PM	2:22 PM	--	4:30 PM	5:22 PM
Donner Summit Lodge	--	--	*Bus travels eastbound I-80 and exits @ Donner Lake Road*	8:37 AM	*Bus travels eastbound I-80 and exits @ Donner Lake Road*	*Bus travels eastbound I-80 and exits @ Donner Lake Road*	*Bus travels eastbound I-80 and exits @ Donner Lake Road*	--	4:37 PM	*Bus travels eastbound I-80 and exits @ Donner Lake Road*
Soda Springs General Store	--	--		8:39 AM				--	4:39 PM	
Donner Pass Rd @ Soda Springs Rd	--	--		8:44 AM				--	4:44 PM	
Soda Springs Ski Resort	--	--		8:49 AM				--	4:49 PM	
Pahatsi Rd@ Yuba Dr	--	--		8:51 AM				--	4:51 PM	
Royal Gorge XC Ski Resort	--	--		8:53 AM				--	4:53 PM	
Soda Springs Rd @ Donner Pass Rd	--	--		8:54 AM				--	4:54 PM	
Tri Lodges	--	--		8:59 AM				--	4:59 PM	
Sugar Bowl Gondola	--	--		9:01 AM				--	5:01 PM	
Donner Ski Ranch	--	--		9:04 AM				--	5:04 PM	
Mt Judah Day Lodge	--	--		9:10 AM				--	5:10 PM	
Sugar Bowl Academy	--	--		9:14 AM				--	5:14 PM	
Donner Pass Rd @ South Shore Dr	--	--	8:32 AM	9:23 AM	10:32 AM	12:32 PM	2:32 PM	--	5:23 PM	5:32 PM
Sticks Market	--	--	8:35 AM	9:26 AM	10:35 AM	12:35 PM	2:35 PM	--	5:26 PM	5:35 PM
Truckee Donner Lodge	--	--	8:38 AM	9:30 AM	10:38 AM	12:38 PM	2:38 PM	--	5:30 PM	5:38 PM
Donner Pass Rd @ Northwoods Blvd	--	--	8:42 AM	9:34 AM	10:42 AM	12:42 PM	2:42 PM	--	5:34 PM	5:42 PM
Old Middle School Park and Ride	--	--	8:44 AM	9:36 AM	10:44 AM	12:44 PM	2:44 PM	--	5:36 PM	5:44 PM
Donner Pass Rd @ Bank of America	--	--	8:47 AM	9:38 AM	10:47 AM	12:47 PM	2:47 PM	--	5:38 PM	5:47 PM
Truckee Train Depot	--	--	8:51 AM	9:42 AM	10:51 AM	12:51 PM	2:51 PM	--	5:42 PM	5:51 PM
Westbound										
Truckee Train Depot	7:00 AM	8:04 AM	9:00 AM	--	11:00 AM	1:00 PM	4:00 PM	4:04 PM	--	--
Gateway Center	7:04 AM	8:06 AM	9:04 AM	--	11:04 AM	1:04 PM	4:04 PM	4:06 PM	--	--
Old Middle School Park and Ride	7:06 AM	8:08 AM	9:06 AM	--	11:06 AM	1:06 PM	4:06 PM	4:08 PM	--	--
Donner Pass Rd @ Northwoods Blvd	7:08 AM	8:10 AM	9:08 AM	--	11:08 AM	1:08 PM	4:08 PM	4:10 PM	--	--
Truckee Donner Lodge	7:12 AM	*Bus travels express westbounfd on I-80*	9:12 AM	--	11:12 AM	1:12 PM	4:12 PM	*Bus travels express westbounfd on I-80*	--	--
Sticks Market	7:16 AM		9:16 AM	--	11:16 AM	1:16 PM	4:16 PM		--	--
Donner Pass Rd @ South Shore Dr	7:19 AM		9:19 AM	--	11:19 AM	1:19 PM	4:19 PM		--	--
Sugar Bowl Academy	7:28 AM		9:28 AM	--	11:28 AM	1:28 PM	4:28 PM		--	--
Mt Judah Day Lodge	7:32 AM		9:32 AM	--	11:32 AM	1:32 PM	4:32 PM		--	--
Donner Ski Ranch	7:38 AM		9:38 AM	--	11:38 AM	1:38 PM	4:38 PM		--	--
Sugar Bowl Gondola	7:41 AM		9:41 AM	--	11:41 AM	1:41 PM	4:41 PM		--	--
Tri Lodges	7:43 AM		9:43 AM	--	11:43 AM	1:43 PM	4:43 PM		--	--
Donner Pass Road @ Soda Springs Rd	7:48 AM		9:48 AM	--	11:48 AM	1:48 PM	4:48 PM		--	--
Soda Springs Ski Resort	7:49 AM		9:49 AM	--	11:49 AM	1:49 PM	4:49 PM		--	--
Pahatsi Rd @ Yuba Dr	7:51 AM		9:51 AM	--	11:51 AM	1:51 PM	4:51 PM		--	--
Royal Gorge XC Ski Resort	7:53 AM		9:53 AM	--	11:53 AM	1:53 PM	4:53 PM		--	--
Soda Springs Rd @ Donner Pass Rd	7:58 AM		9:58 AM	--	11:58 AM	1:58 PM	4:58 PM		--	--
Soda Springs General Store	8:03 AM		10:03 AM	--	12:03 PM	2:03 PM	5:03 PM		--	--
Donner Summit Lodge	8:05 AM		10:05 AM	--	12:05 PM	2:05 PM	5:05 PM		--	--
Boreal Ridge Ski Resort	8:12 AM	8:25 AM	10:12 AM	--	12:12 PM	2:12 PM	5:12 PM	4:25 PM	--	--

- Bus #2 would depart the Truckee Train Depot at 8:04 AM, but would essentially operate the opposite as the first bus. Rather than stopping at all ski resorts in the westbound direction, the bus will use I-80 after the Northwoods Blvd stop until it arrives at Boreal Ridge Ski Area. It would then continue along the I-80 / Donner Summit Road loop in a counterclockwise direction, serving all the ski resorts and other winter shuttle stops until it returns to the Train Depot. An additional afternoon run would leave the Truckee Train Depot at 4:04 PM,

and would return at 5:42 PM. Bus #2 would be providing an express arrival to Boreal, comprehensive return service from all resorts, and a shorter travel time to Truckee from the resorts along Donner Pass Road. This option provides multiple opportunities for both skiers and employees at all of the ski areas in the Donner Summit area.

As the existing Winter Shuttle operates two buses, the vehicle-service hours are not increased substantially. Under the existing schedule, the Winter Shuttle operates 13.36 vehicle-service hours, and under the proposed schedule, the service would require 13.85 vehicle-service hours. As three buses would be required to operate this alternative, an additional vehicle would be needed. Figure 16 illustrates this alternative.

Operating Costs and Ridership Impacts

Operating costs associated with this option are higher than the one-bus alternative, due to the additional services levels and vehicles required for the Winter Shuttle. However, when compared to the current Winter Shuttle, there is only a $2,520 increase over existing costs. Overall, with the year round and winter components combined, this service option would increase operating costs by $157,400 annually, as shown in Table 28.

Ridership changes were calculated in the same manner as the previous alternative. However, due to improvements in service and more convenient trip options to and from the ski areas, ridership is expected to increase slightly in the winter. As a result, estimates show a potential for 4,300 additional passenger-trips annually, or 18 trips per day. In total, ridership is estimated to be 12,500 on the Truckee Local route plus 8,900 on the Truckee – Donner Summit Winter route, for a total of 21,400 passenger-trips.

The increased farebox revenue would equal roughly $19,500 per year, consistent with the previous alternative as the Winter-only route does not charge a passenger fare. Under this alternative, the subsidy required to operate this scenario would total $137,900 per year. Again, this does not include the ski area contributions.

Span of Service Sub-Alternatives

In order to consider options to reduce subsidy requirements, four sub-alternatives were considered that would limit the days/hours of Truckee Local fixed route service. While the alternative presented above assumes that the Truckee Local route would be operated 11 hours per day, seven days a week throughout the year, the options shown in Table 30 were considered that would reduce service levels:

- **Operating Saturday and Sunday service 8 hours per day in the spring and fall** (such as 9:05 AM to 4:05 PM) would reduce annual vehicle-hours by 150 and annual vehicle-miles by 2,780, resulting in an annual operating cost savings of $11,900. Considering the proportion of observed ridership in similar systems on off-season weekend days, this reduction in service would eliminate an estimated 350 passenger-trips per year. Subtracting the loss of $820 in farebox revenue, this sub-option would reduce overall subsidy needs by $11,080 per year.

FIGURE 16

Year Round Fixed Route + Winter Shuttle with Two Buses

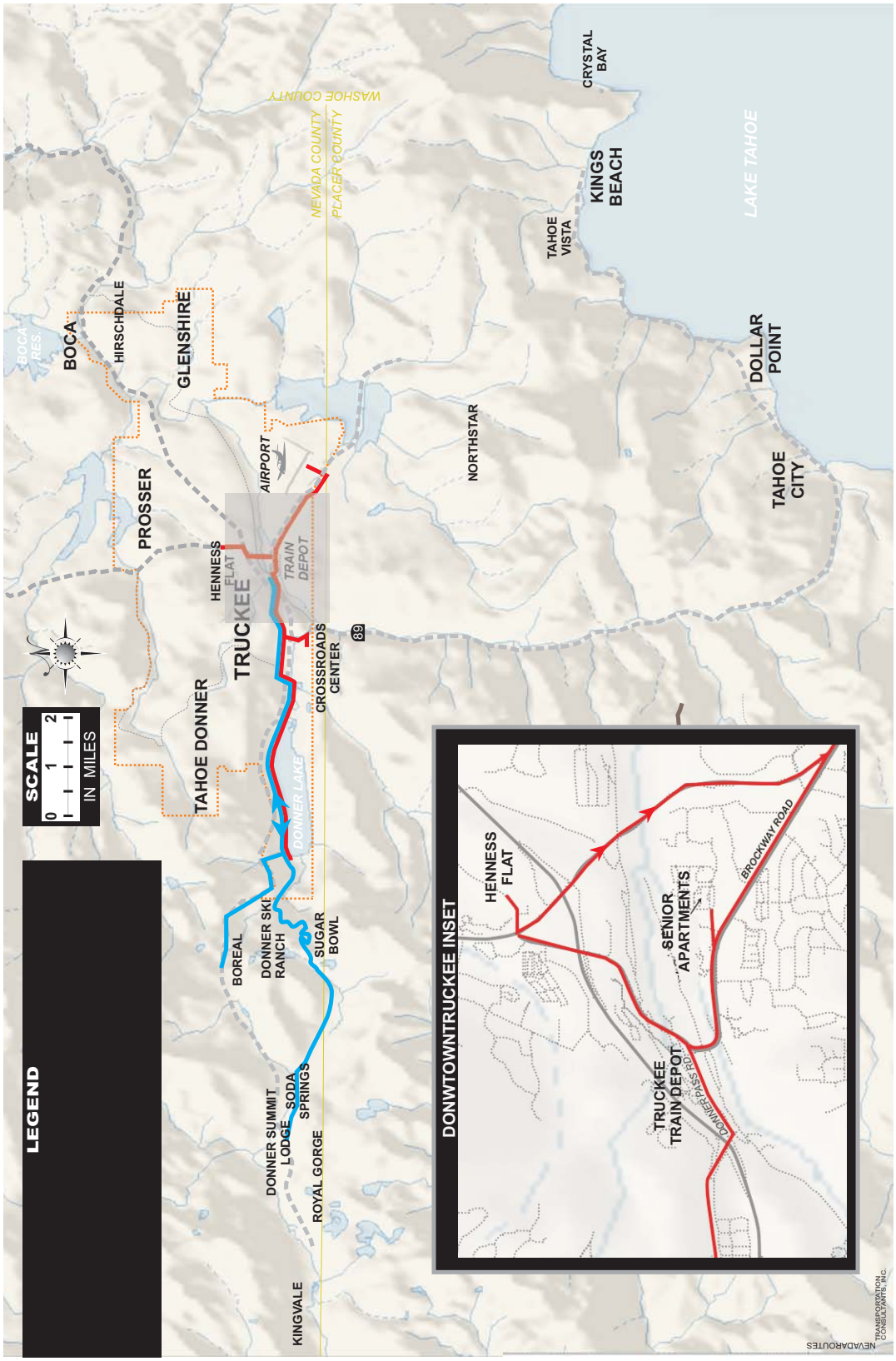


TABLE 30: Truckee Local Fixed Route Span of Service Alternatives

Change from Full Year-Round Service 7 Days a Week

Alternative	Operating Days	Impact on Total Annual: Vehicle Miles	Vehicle Hours	Operating Cost	Ridership	Farebox Revenue	Subsidy Required
Reduce Local Fixed Route Service to 8 hrs/day on Sat Sun in Spring and Fall	50	-2,776	-150	-$11,900	-350	-$820	-$11,080
Eliminate Local Fixed Route Service on Sunday and Reduce Saturday to 8 Hours in Spring and Fall	50	-6,478	-350	-$27,800	-500	-$1,170	-$26,630
Reduce Local Fixed Route Service ot 8 hrs/day on Saturdays and Sundays in the non-Winter Seasons	75	-4,165	-225	-$17,900	-600	-$1,410	-$16,490
Eliminate Local Fixed Route Service on Non-Winter Sundays, and Reduce Saturday to 8 hours	75	-9,717	-525	-$41,700	-900	-$2,110	-$39,590

- **Eliminating Sunday service in the offseason and reducing Saturday service to 8 hours per day in spring and fall** would eliminate 350 vehicle-hours of service and 6,450 vehicle-miles of service. Costs would be reduced by $27,800. Annual ridership would drop by an estimated 500 passenger-trips, while farebox revenues would be reduced by $1,170. Overall subsidy requirements would be reduced by $26,630.

- **Operating Saturday and Sunday service 8 hours per day in spring, summer and fall** would reduce ridership by 600 passenger-trips per year, but would reduce subsidy needs by an estimated $16,490.

- **Eliminating Sunday service and reducing Saturday service to 8 hours per day in spring, summer and fall** would reduce annual ridership by 900, and reduce subsidy requirements by $39,590.

These differences in cost, ridership and subsidy needs would be equal for both the Winter One Bus and the Winter Two Bus options.

Streamline the Winter Service Only

Under this alternative, the existing shift from local to Donner Summit service would continue to occur, but the winter route/schedule would be improved. One issue with the existing Winter Shuttle service is the long travel times for each run. As is, each run takes approximately 3 hours to complete, with 1.5 hours in each direction. To help reduce the operating time and encourage more ridership, the winter service could be streamlined to reduce run time.

Service would start at Henness Flat Apartments and end at Boreal Ridge Ski Resort, just like the existing schedule. However, service time would be minimized by employing the two-bus option strategy proposed in the above alternative scenario, where the bus travels down I-80 during specific runs. A potential schedule is shown in Table 6.

As shown in Table 31, this service would cost roughly $3,670 more in operating costs, mostly due to an increase in vehicle miles traveled. Ridership is expected to increase by roughly 10 percent due to the better options for trips to and from the ski resorts. However, because no fare is charged, there would be no additional farebox revenue collected. As such, this would require and additional $3,670 annually in subsidy.

After a review of this alternative, it was determined that it would not adequately serve the Truckee community as a whole. First, persons living in the West End area would not have commute hour transit service, which is one goal of Truckee Transit. Second, the service would not provide consistent transit options throughout the day. Third, transit service to the airport and Hampton Inn could not be included while still significantly reducing running times; if they were added, the service would take equally as long as the current route, and would not provide any benefit of shorter runs. As shown, the runs that serve all stops are roughly 1.5 hours, as there is no change; the improvement in running times comes from traveling on I-80 in the eastbound (or westbound, depending on which run) direction. Given the constraints on service area and route composition, this service would likely shift many passengers to the Dial-A-Ride service for those persons traveling locally (not to the ski resorts). Lastly, the vehicle-service hours required to operate this schedule would increase to 15.75 hours daily, thereby increasing costs while not expanding service.

TABLE 31: Streamlined Winter Service Only Schedule - 2 Bus Option

Stop	Time (Clockwise Runs)									
	Bus 1 Clockwise	Bus 2 Clockwise	Bus 1 Clockwise	Bus 2 Clockwise	Bus 1 Clockwise	Bus 1 Clockwise	Bus 1 Clockwise	Bus 2 Clockwise	Bus 2 Clockwise	Bus 1 Clockwise
Eastbound										
Boreal Ridge Ski Resort	--	--	8:28 AM	8:51 AM	10:38 AM	12:48 PM	2:58 PM	--	4:51 PM	5:08 PM
Donner Summit Lodge	--	--	*Bus travels eastbound I-80 and exits @ Donner Lake Road*	8:58 AM	*Bus travels eastbound I-80 and exits @ Donner Lake Road*	*Bus travels eastbound I-80 and exits @ Donner Lake Road*	*Bus travels eastbound I-80 and exits @ Donner Lake Road*	--	4:58 PM	*Bus travels eastbound I-80 and exits @ Donner Lake Road*
Soda Springs General Store	--	--		9:00 AM				--	5:00 PM	
Donner Pass Rd @ Soda Springs Rd	--	--		9:05 AM				--	5:05 PM	
Soda Springs Ski Resort	--	--		9:10 AM				--	5:10 PM	
Pahatsi Rd@ Yuba Dr	--	--		9:12 AM				--	5:12 PM	
Royal Gorge XC Ski Resort	--	--		9:14 AM				--	5:14 PM	
Soda Springs Rd @ Donner Pass Rd	--	--		9:15 AM				--	5:15 PM	
Tri Lodges	--	--		9:20 AM				--	5:20 PM	
Sugar Bowl Gondola	--	--		9:22 AM				--	5:22 PM	
Donner Ski Ranch	--	--		9:25 AM				--	5:25 PM	
Mt Judah Day Lodge	--	--		9:31 AM				--	5:31 PM	
Sugar Bowl Academy	--	--		9:35 AM				--	5:35 PM	
Donner Pass Rd @ South Shore Dr	--	--	8:38 AM	9:44 AM	10:48 AM	12:58 PM	3:08 PM	--	5:44 PM	5:18 PM
Sticks Market	--	--	8:41 AM	9:47 AM	10:51 AM	1:01 PM	3:11 PM	--	5:47 PM	5:21 PM
Truckee Donner Lodge	--	--	8:44 AM	9:50 AM	10:54 AM	1:04 PM	3:14 PM	--	5:50 PM	5:24 PM
Tri Counties Bank Plaza	--	--	8:46 AM	9:52 AM	10:56 AM	1:06 PM	3:16 PM		5:52 PM	5:26 PM
Donner Pass Rd @ Northwoods Blvd	--	--	8:48 AM	9:54 AM	10:58 AM	1:08 PM	3:18 PM	--	5:54 PM	5:28 PM
Donner Pass Rd @ School Dist Building	--	--	8:49 AM	9:55 AM	10:59 AM	1:09 PM	3:19 PM	--	5:55 PM	5:29 PM
Donner Pass Rd @ 7-11	--	--	8:50 AM	9:56 AM	11:00 AM	1:10 PM	3:20 PM		5:56 PM	5:30 PM
Deerfield Dr @ Crossroads Center	--	--	8:53 AM	9:59 AM	11:03 AM	1:13 PM	3:23 PM		5:59 PM	5:33 PM
Donner Pass Rd @ Bank of America	--	--	8:56 AM	10:02 AM	11:06 AM	1:16 PM	3:26 PM	--	6:02 PM	5:36 PM
Tahoe Forest Hospital	--	--	8:58 AM	10:04 AM	11:08 AM	1:18 PM	3:28 PM		6:04 PM	5:38 PM
Truckee Train Depot	--	--	9:01 AM	10:07 AM	11:11 AM	1:21 PM	3:31 PM	--	6:07 PM	5:41 PM
Truckee Community Recreation Center	--	--	9:05 AM	10:11 AM	11:15 AM	1:25 PM	3:35 PM		6:11 PM	5:45 PM
Henness Rd @ Henness Flat Apartments	--	--	9:06 AM	10:12 AM	11:16 AM	1:26 PM	3:36 PM		6:12 PM	5:46 PM
Westbound										
Henness Rd @ Henness Flat Apartments	7:00 AM	8:04 AM	9:10 AM	--	11:20 AM	1:30 PM	3:40 PM	4:04 PM		
Brockway Rd @ Larkspur	7:04 AM	8:08 AM	9:14 AM	--	11:24 AM	1:34 PM	3:44 PM	4:08 PM		
Brockway Rd @ Reynold Way	7:06 AM	8:10 AM	9:16 AM	--	11:26 AM	1:36 PM	3:46 PM	4:10 PM		
Estates Dr @ Senior Apartments	7:08 AM	8:12 AM	9:18 AM	--	11:28 AM	1:38 PM	3:48 PM	4:12 PM		
Brockway Rd @ Regional Park	7:10 AM	8:14 AM	9:20 AM	--	11:30 AM	1:40 PM	3:50 PM	4:14 PM		
Truckee Train Depot	7:13 AM	8:17 AM	9:23 AM	--	11:33 AM	1:43 PM	3:53 PM	4:17 PM	--	--
Tahoe Forest Hospital	7:15 AM	8:19 AM	9:25 AM	--	11:35 AM	1:45 PM	3:55 PM	4:19 PM		
Gateway Center	7:17 AM	8:21 AM	9:27 AM	--	11:37 AM	1:47 PM	3:57 PM	4:21 PM	--	--
Deerfield Dr @ Crossroads Center	7:20 AM	8:24 AM	9:30 AM	--	11:40 AM	1:50 PM	4:00 PM	4:24 PM	--	--
Donner Pass Rd @ 7-11	7:23 AM	8:27 AM	9:33 AM	--	11:43 AM	1:53 PM	4:03 PM	4:27 PM		
Donner Pass Rd @ School District Bldg	7:24 AM	8:28 AM	9:34 AM	--	11:44 AM	1:54 PM	4:04 PM	4:28 PM		
Donner Pass Rd @ Northwoods Blvd	7:25 AM	8:29 AM	9:35 AM	--	11:45 AM	1:55 PM	4:05 PM	4:29 PM	--	--
Tri Counties Bank Plaza	7:27 AM	8:31 AM	9:37 AM	--	11:47 AM	1:57 PM	4:07 PM	4:31 PM		
Truckee Donner Lodge	7:29 AM	*Bus travels express westbound on I-80*	9:39 AM	--	11:49 AM	1:59 PM	4:09 PM	*Bus travels express westbound on I-80*	--	--
Sticks Market	7:32 AM		9:42 AM	--	11:52 AM	2:02 PM	4:12 PM		--	--
Donner Pass Rd @ South Shore Dr	7:35 AM		9:45 AM	--	11:55 AM	2:05 PM	4:15 PM		--	--
Sugar Bowl Academy	7:44 AM		9:54 AM	--	12:04 PM	2:14 PM	4:24 PM		--	--
Mt Judah Day Lodge	7:48 AM		9:58 AM	--	12:08 PM	2:18 PM	4:28 PM		--	--
Donner Ski Ranch	7:54 AM		10:04 AM	--	12:14 PM	2:24 PM	4:34 PM		--	--
Sugar Bowl Gondola	7:57 AM		10:07 AM	--	12:17 PM	2:27 PM	4:37 PM		--	--
Tri Lodges	7:59 AM		10:09 AM	--	12:19 PM	2:29 PM	4:39 PM		--	--
Donner Pass Road @ Soda Springs Rd	8:04 AM		10:14 AM	--	12:24 PM	2:34 PM	4:44 PM		--	--
Soda Springs Ski Resort	8:05 AM		10:15 AM	--	12:25 PM	2:35 PM	4:45 PM		--	--
Pahatsi Rd @ Yuba Dr	8:07 AM		10:17 AM	--	12:27 PM	2:37 PM	4:47 PM		--	--
Royal Gorge XC Ski Resort	8:09 AM		10:19 AM	--	12:29 PM	2:39 PM	4:49 PM		--	--
Soda Springs Rd @ Donner Pass Rd	8:14 AM		10:24 AM	--	12:34 PM	2:44 PM	4:54 PM		--	--
Soda Springs General Store	8:19 AM		10:29 AM	--	12:39 PM	2:49 PM	4:59 PM		--	--
Donner Summit Lodge	8:21 AM		10:31 AM	--	12:41 PM	2:51 PM	5:01 PM		--	--
Boreal Ridge Ski Resort	8:28 AM	8:46 AM	10:38 AM	--	12:48 PM	2:58 PM	5:08 PM	4:46 PM	--	--

Provide a Commuter Transit Service between Downtown Truckee and Tahoe Donner

Given the existing non-winter fixed-route schedule, there is essentially no opportunity to commute by transit in Truckee (other than Dial-A-Ride). As is, the first fixed route bus does not depart until 9:05 AM, too late for typical work patterns. Commuter data specific to Town of Truckee residents shows that slightly less than one-half of Truckee employed residents commute within Truckee. However, travel distances are relatively short and few workers face the need to pay for parking. These factors tend to reduce the attractiveness of transit as a commute option for persons with a car available for their trip.

One option considered was to provide a separate commuter service between Downtown Truckee and Tahoe Donner. While there is a significant amount of housing in the Tahoe Donner area, it is unlikely to generate enough ridership to warrant service. According to the Truckee Traffic Model, roughly 68 percent of the housing units in Tahoe Donner are part-time. Further, this neighborhood has a high percentage of elderly persons, a population group that is most likely out of the work force and has a higher propensity to use demand response services. These two factors combined suggest that commuter service from this neighborhood would be greatly underutilized.

Another issue that is of concern is the roadways during the winter season in the Tahoe Donner neighborhood. Many roads are very steep and windy, and are difficult for transit buses to travel on. In fact, Dial-A-Ride is not able to serve this area on very snowy days due to safety concerns.

Providing additional transit service to serve commuters, moreover, would be quite costly. Considering typical work rules as well as requirements for pre-trip and post-trip vehicle inspections, at a minimum two-hour driver shifts would be needed both in the AM and the PM commute periods. Assuming service seven days a week in the peak seasons and 5 days a week in the off-seasons (reflecting the consistent employment pattern during the peak tourist seasons), a one-bus commute service would incur an operating cost of approximately $100,000 per year.

In conclusion, providing a separate commuter service for this neighborhood would not generate enough ridership to offset the rather substantial costs that would be associated with this service. By expanding the existing fixed route service to commute hours (both AM and PM), funding would be better utilized.

DEMAND RESPONSE SERVICE ALTERNATIVES

Provide Three Daily Service Round-Trips from the Senior Apartments

A review of the Dial-A-Ride trip logs shows that many Senior Apartments residents are using the service throughout the day for similar trips, such as to the Gateway Center or Tahoe Forest Hospital. Currently there are about 4.6 passenger-trips per day between this area in western Truckee and the Senior Apartments by senior or disabled passengers. Since these are not for appointments, it is assumed that there is flexibility in when these trips could occur.

In order to use Dial-A-Ride more efficiently, and to improve resources available for other passengers, one option would be to offer designated service trips between the Senior Apartments and popular destinations. Details for this alternative consist of the following:

- Three scheduled trips would be offered each day, including a departure from the Senior Apartments at 8:00 AM, one roundtrip at 11:30 AM, and a return to the Senior Apartments at 3:00 PM.

- The service route would operate between the Senior Apartments, Truckee Train Depot, Tahoe Forest Hospital, Gateway Shopping Center (Safeway / RiteAid) and the Crossroads Center (SaveMart).

Should Senior Apartments residents not be able to use the shuttle during these times, the fixed-route could be utilized.

Because service would be provided within existing operating hours, there would be no increase in costs for Truckee Transit. Instead, this option would allow for more efficient use of vehicle/driver time since many trips would be consolidated.

Another component of this service would be to charge seniors or disabled passengers using the service route a lower fare, equal to the fixed route. Currently, the fixed route fare is set at $1.00 per one-way trip for seniors and disabled, compared to the $2.00 fare paid on Dial-A-Ride. Reducing the fare would encourage more people to use this service due to the cost savings, particularly those who wouldn't otherwise use the fixed route.

As mentioned, approximately 4.6 passenger-trips per day are served on Dial-A-Ride between the Senior Apartments and the Donner Pass Road corridor between the Train Depot and Crossroads Center. Because these trips are for shopping and are flexible, it is likely that none of these trips would be lost. In addition, should a fare be lowered, higher ridership is expected. The analysis shown in Table 28 suggests that with this new service route, there could be an additional 360 passengers per year on this service. However, with a lower fare being charged, Truckee Transit would actually lose farebox revenue and therefore would increase the amount of subsidy needed. It would make more sense for Truckee Dial-A-Ride to implement this alternative but charge the existing $2.00 fare for seniors and disabled passengers. The result would be more efficient use of time without a loss in farebox revenue or an increase in operating costs.

Reduce Dial-A-Ride Service Hours

One option for improving the Dial-A-Ride service's efficiency would be to limit the types of passengers served. An analysis, as shown in Table 32, suggests that the current vehicle-hours used by the Dial-A-Ride service is above and beyond what is actually needed to serve the current level of passengers. The Table provides three scenarios, as discussed below.

TABLE 32: Analysis of DAR Service Required by Alternative

	Existing Schedule			Minimum Hours Needed to Accommodate Ridership: Maintain Existing Program					Disabled and General Public Not Served by Fixed Route					Serve Disabled and Senior Passengers Only [1]				
Date	DAR 1	DAR 2	Total Veh-Hrs of Service	DAR 1 AM	DAR 1 PM	DAR 2 AM	DAR 2 PM	Total Veh-Hrs of Service	DAR 1 AM	DAR 2 PM	DAR 2 AM	DAR 2 PM	Total Veh-Hrs of Service	DAR 1 AM	DAR 1 PM	DAR 2 AM	DAR 2 PM	Total Veh-Hrs of Service
Weekday Service																		
4/1/2013	8:00 AM to 4:00 PM	9:00 AM to 5:00 PM	14.25	8:00 AM to 12:30 PM	2:30 PM to 5:00 PM	9:30 AM to 11:30 PM	12:30 PM to 2:30 PM	11.00	8:00 AM to 12:00 PM	2:30 PM to 5:00 PM	9:30 AM to 11:30 AM	12:30 PM to 2:30 PM	11.00	8:00 AM to 12:30 PM	2:30 PM to 5:00 PM	9:30 AM to 11:30 PM	12:30 PM to 2:30 PM	11.00
4/2/2013	8:00 AM to 4:00 PM	9:00 AM to 5:00 PM	14.25	8:00 AM to 12:45 PM	2:00 PM to 5:00 PM	9:15 AM to 11:15 PM	12:45 PM to 2:45 PM	11.75	8:00 AM to 12:45 PM	2:00 PM to 5:00 PM	9:15 AM to 11:15 AM	12:45 PM to 3:00 PM	11.75	8:00 AM to 12:00 PM	2:00 PM to 5:00 PM	--	12:15 PM to 2:00 PM	9.00
4/3/2013	8:00 AM to 4:00 PM	9:00 AM to 5:00 PM	14.25	8:00 AM to 1:00 PM	2:15 PM to 5:00 PM	9:00 AM to 12:00 PM	1:00 PM to 3:15 PM	13.00	8:00 AM to 1:00 PM	2:45 PM to 5:00 PM	9:30 AM to 11:45 AM	1:00 PM to 3:15 PM	11.75	8:00 AM to 1:00 PM	2:45 PM to 5:00 PM	9:30 AM to 11:30 PM	1:00 PM to 3:15 PM	11.50
4/4/2013	8:00 AM to 4:00 PM	9:00 AM to 5:00 PM	14.25	8:00 AM to 12:45 PM	2:15 PM to 5:00 PM	9:15 AM to 11:15 PM	12:45 PM to 2:45 PM	11.50	8:00 AM to 12:45 PM	2:15 PM to 5:00 PM	--	12:15 PM to 2:15 PM	9.50	8:00 AM to 12:45 PM	2:45 PM to 5:00 PM	--	12:45 PM to 2:45 PM	9.00
4/5/2013	8:00 AM to 4:00 PM	9:00 AM to 5:00 PM	14.25	8:00 AM to 1:00 PM	2:00 PM to 5:00 PM	9:15 Am to 11:45 PM	1:00 PM to 3:30 PM	13.00	8:00 AM to 12:45 PM	2:45 PM to 5:00 PM	9:15 AM to 11:45 AM	12:45 PM to 2:45 PM	11.50	8:00 AM to 1:00 PM	3:00 PM to 5:00 PM	10:00 AM to 12:15 PM	1:00 PM to 3:00 PM	11.25
4/8/2013	8:00 AM to 4:00 PM	9:00 AM to 5:00 PM	14.25	8:00 AM to 12:00 PM	2:00 PM to 5:00 PM	9:30 AM to 2:00 PM	--	11.50	8:00 AM to 12:00 PM	2:00 PM to 5:00 PM	9:30 AM to 2:00 PM	--	11.50	8:00 AM to 12:00 PM	2:00 PM to 5:00 PM	--	12:00 PM to 2:00 PM	9.00
4/9/2013	8:00 AM to 4:00 PM	9:00 AM to 5:00 PM	14.25	8:00 AM to 12:30 PM	2:30 PM to 5:00 PM	9:00 AM to 11:00 AM	12:30 PM to 2:30 PM	11.00	8:00 AM to 12:30 PM	2:30 PM to 5:00 PM	9:00 AM to 11:00 AM	12:30 PM to 2:30 PM	11.00	8:00 AM to 12:30 PM	2:30 PM to 5:00 PM	9:00 AM to 11:00 AM	12:30 PM to 2:30 PM	11.00
4/10/2013	8:00 AM to 4:00 PM	9:00 AM to 5:00 PM	14.25	8:00 AM to 12:30 PM	2:30 PM to 5:00 PM	--	12:30 PM to 2:30 PM	9.00	8:00 AM to 12:30 PM	2:30 PM to 5:00 PM	--	12:30 PM to 2:30 PM	9.00	8:00 AM to 12:30 PM	2:30 PM to 5:00 PM	--	12:30 PM to 2:30 PM	9.00
4/11/2013	8:00 AM to 4:00 PM	9:00 AM to 5:00 PM	14.25	8:00 AM to 12:00 PM	1:30 PM to 5:00 PM	11:30 AM to 1:30 PM	--	9.50	8:00 AM to 12:00 PM	1:30 PM to 5:00 PM	11:30 AM to 1:30 PM	--	9.50	8:00 AM to 12:00 PM	2:00 PM to 5:00 PM	--	12:00 PM to 2:00 PM	9.00
4/12/2013	8:00 AM to 4:00 PM	9:00 AM to 5:00 PM	14.25	8:00 AM to 12:45 PM	2:15 PM to 5:00 PM	9:00 AM to 11:45 AM	12:45 PM to 2:45 PM	12.25	8:00 AM to 12:45 PM	2:15 PM to 5:00 PM	10:00 AM to 12:00 AM	12:45 PM to 2:45 PM	11.50	8:00 AM to 12:00 PM	2:00 PM to 5:00 PM	--	12:00 PM to 2:00 PM	9.00
Saturday Service																		
4/6/2013	9:00 AM to 5:00 PM	--	7.00	9:00 AM to 12:00 PM	1:00 PM to 5:00 PM	--	--	7.00	9:00 AM to 12:00 PM	1:00 PM to 5:00 PM	--	--	7.00	9:00 AM to 12:00 PM	1:00 PM to 5:00 PM	--	--	7.00
4/13/2013	9:00 AM to 5:00 PM	--	7.00	9:00 AM to 12:00 PM	1:00 PM to 5:00 PM	--	--	7.00	9:00 AM to 12:00 PM	1:00 PM to 5:00 PM	--	--	7.00	9:00 AM to 12:00 PM	1:00 PM to 5:00 PM	--	--	7.00
Recommended Vehicle-Service Hours - Weekdays				8:00 AM to 12:45 PM	2:00 PM to 5:00 PM	9:15 AM to 11:45 AM	12:45 PM to 3:00 PM	***12.50***	8:00 AM to 1:00 PM	2:30 PM to 5:00 PM	9:30 AM to 11:30 AM	1:00 PM to 3:00 PM	***11.50***	8:00 AM to 12:30 PM	2:30 PM to 5:00 PM	9:30 AM to 11:30 AM	12:30 PM to 2:30 PM	***11.00***
Recommended Vehicle-Service Hours - Weekends				9:00 AM to 12:00 PM	1:00 PM to 5:00 PM	--	--	***7.00***	9:00 AM to 12:00 PM	1:00 PM to 5:00 PM	--	--	***7.00***	9:00 AM to 12:00 PM	1:00 PM to 5:00 PM	--	--	***7.00***

Note 1: Includes the Alta / Choices passengers, but not the Special Education students

Source: Truckee Transit, 2013; LSC Transportation Consultants, Inc., 2013

Continue Existing Level of Service for Passengers

The first scenario under this alternative would be to continue the existing service area policy, but reduce the number of vehicle-hours. As shown in Table 32, the Dial-A-Ride service operates two buses for the majority of the day – DAR 1 from 8:00 AM to 4:00 PM, and DAR 2 from 9:00 AM to 5:00 PM. Based on the ridership patterns looking at 15-minute increments (as shown in Appendix A), it was determined that the vehicle-service hours could be reduced while still serving all passengers. Under the Maintain Existing Program option, hours could be reduced from 14 vehicle-service hours per day to 12.5 vehicle-hours per day, or 1.5 fewer vehicle-service hours per day (468 vehicle-service hours annually). The data shows that there are some days that required additional hours above this level, however, improved scheduling techniques and reservation policies could ensure all passengers are accommodated within the reduced number of vehicle-service hours. Additionally, trips that are not subscription may have more flexibility in their scheduling (within ADA limitations) than is currently being required. Note that Saturday service would not change, and would continue to be operated for 7 vehicle-service hours, between 9:00 AM and 5:00 PM, with a one hour lunch break (no service).

Under this scenario, the two vehicles would be operated as follows:

- DAR 1: 8:00 AM to 12:45 PM; 2:00 PM to 5:00 PM – total of 7.75 vehicle-service hours
- DAR 2: 9:15 AM to 11:45 PM; 12:45 PM to 3:00 PM – total of 4.75 vehicle-service hours

This would allow for service during most busy times of the day when two vehicles are required to accommodate existing passenger levels. Overlap would occur in both the morning and afternoon hours, when two vehicles are required to accommodate peak passenger loads.

Operating Cost and Ridership Impacts

Reducing the VSH by 1.5 hours per day would result in a reduction of operation costs of $28,500 per year, as shown in Table 38. Since this alternative does not include service reductions, and is designed to serve the existing passengers under the current plan, there is no anticipated loss in ridership. Therefore, the marginal subsidy saved is equal to that of the operating cost reduction, or a savings of $28,500 per year.

Only Provide Service to Areas Not Served by Fixed Route

Another option under this alternative would be to limit the general public service area to those areas outside ¼-mile of the fixed route. Both trip ends would need to be within ¼-mile of the fixed route service area; trips with either an origin or destination outside this area could be completed by Dial-A-Ride. This would encourage those persons living and traveling within proximity to the fixed route to use the service, thereby opening up more time for disabled persons.

As shown in Table 32, the number of hours needed each day under this scenario varies. Overall, a reasonable level of service to accommodate most passengers would be 11.5 vehicle-service hours, representing a reduction of 2.5 vehicle-service hours per day from existing levels.

On a yearly basis, this equates to 780 fewer vehicle-service hours. The in-service vehicle schedule would be as follows:

- DAR 1: 8:00 AM to 1:00 PM; 2:30 PM to 5:00 PM – total of 7.5 vehicle-service hours
- DAR 2: 9:30 AM to 11:30 AM; 1:00 PM to 3:00 PM – total of 4.0 vehicle-service hours

The analysis showed that the most crucial times when a second bus is needed are during the mid-morning hours. Further, there was a need for a slight overlap in the afternoon towards the end of the 2:00 PM hour, particularly given the time required to serve the more distant portions of the service area (such as Glenshire). Again, as with the previous scenario, advanced scheduling software, improved reservation polices and flexible passenger reservations would allow for more efficient use of time and the ability to serve most, if not all, passengers. Weekend service would continue as it is currently operated, with 7 vehicle-service hours between 9:00 AM and 12:00 PM, and again from 1:00 PM to 5:00 PM.

With improvements to the fixed route on a year round basis, as discussed earlier, many more people would have the option of using the fixed route if they are within walking distance to a stop.

Operating Cost and Ridership Impacts

As shown in Table 28, by not offering Dial-A-Ride within the fixed route corridor, the Town of Truckee would see a reduction in operating costs of $52,700 per year.

Approximately 15 percent of the passengers on Dial-A-Ride (according to 2 weeks worth of data in April 2013) are non-disabled passengers that could have used the fixed route for their trip. Of this total, 76 percent of the trips were completed by senior passengers and 6 percent were general public. This includes trips with origins or destinations at the Senior Apartments, as well as other locations along Brockway Road. Under this scenario, roughly 1,730 passenger-trips would be lost annually or 6 trips per day. However, because these trips could have been made by the fixed route, the ridership is not lost as a whole throughout the system and would shift to the fixed route. These trips do include those completed by the Special Education students; should the school district and the Town of Truckee decide to arrange special transit fares, this ridership loss would be lower.

According to the type of passengers that would shift to the fixed route, roughly $1,680 in passenger fare revenues would be lost on Dial-A-Ride. This figure reflects the fare revenue on the fixed route due to a passenger shift, which mitigates some of the loss seen on the Dial-A-Ride alone. With this scenario, Dial-A-Ride would require $51,020 less in marginal operating subsidy for the service.

Only Provide Service to Disabled and Senior Passengers

Another way to improve the efficiency of the demand response system would be to limit service to only seniors and persons with disabilities. This would include ADA eligible persons, as well as those within the Alta / Choices program. General public, regardless of where in Truckee they need service, would not be eligible to use the Dial-A-Ride. This option would perform best in

concert with the three daily service trips from the Senior Apartments, so as to optimize time available for other passengers under fewer operating hours.

As shown in Table 32, the ideal number of operating hours for weekdays would be 11.0 vehicle-service hours. This would equate to a reduction in daily vehicle-service hours by 3.0 hours, or 936 vehicle-service hours annually. This includes two buses operating during the morning hours, when the Dial-A-Ride service is the busiest. Another shift on the second bus would cover the lunch for the first bus only, so there would only one bus in operation. The proposed in service vehicle-hours are as follows:

- DAR 1: 8:00 AM to 12:30 PM; 2:30 PM to 5:00 PM – total of 7.0 vehicle-service hours
- DAR 2: 9:30 AM to 11:30 AM; 12:30 PM to 2:30 PM – total of 4.0 vehicle-service hours

As with the other scenarios, service on weekends would not change from existing levels, maintaining 7 vehicle-service hours per day, including no service between 12:00 PM and 1:00 PM for a lunch break.

Operating Costs and Ridership Impacts

If the Town of Truckee only served the senior and disabled populations, operating costs would be reduced by $59,500 annually, as shown in Table 28.

Dial-A-Ride data presented earlier in the study showed that the General Public (non-senior, non-disabled) only comprised roughly 7.5 percent of the overall Dial-A-Ride ridership. Therefore, significant impacts to ridership are not anticipated. Based on this information, this alternative would result in roughly 860 fewer passenger trips per year, or about 3 trips per day. Given that the General Public fare is $6.00 per one-way trip, this alternative would result in $5,550 less passenger fare revenue. However, because some of these passengers could use the fixed route (roughly 12 percent of the General Public passengers), the farebox on the fixed route would increase slightly. Overall, the farebox revenue lost would total $3,390 per year. Subtracting this from the operating cost figure shows that, despite the loss in revenue, the Town of Truckee would still save approximately $56,110 in operating subsidy required to operate the overall Dial-A-Ride service.

Only Provide Dial-A-Ride Service within ¾-Miles of the Fixed Route

Another potential option would be to reduce the Dial-A-Ride to a service area within ¾ mile of the fixed route. This is the minimum service area required for complementary paratransit service under the Americans with Disabilities Act. Cost reductions under this option, however, would be relatively low, as the ADA also requires that complementary paratransit service be available during all hours of fixed-route service, necessitating at least one vehicle in operation over the day. In addition, a review of existing Dial-A-Ride passenger trip origins and destinations indicates that this option would eliminate service to approximately 40 percent of all existing passengers, including any service to Glenshire, Tahoe Donner, Prosser Lakeview and other more remote portions of Truckee. Considering both the limited cost savings and the significant impact to existing DAR patrons, this alternative should not be considered further.

OTHER SERVICE ALTERNATIVES

Utilize Gold Country Telecare for Social Service Trips to Kings Beach

One of the larger issues that have been identified in the Eastern Nevada County area is the need for travel out of area for medical purposes, such as to Reno or the Sacramento area. In addition, there is a need to travel between Truckee and Kings Beach for various social service appointments and activities. While most social services for Kings Beach residents are located in North Lake Tahoe, after school programs at the Boys and Girls Club, as well as medical services in Truckee that are not provided elsewhere in North Tahoe, generate a need for transportation between the two areas.

Consolidated Transportation Services Agencies (CTSAs) are the result of the Social Services Transportation Improvement Act, and are tasked with achieving transportation coordination goals for transportation disadvantaged groups. CTSAs are designated by local groups, such as county transportation commissions, LTCs, RTPAs or MPOs. Gold Country Telecare, one of the paratransit providers in western Nevada County, is the designated CTSA for county. As Gold Country Telecare no longer serves the Truckee area, in effect none of the CTS funds are currently expended in eastern Nevada County (including the Town of Truckee). While one option would be for the Town of Truckee to become a CTSA recipient and be allocated CTS funding directly, another option to obtain funding for out of area trips would be to contract service with Gold Country Telecare.

Per Caltrans, CTS funding is available for intra-community trips. Service between Truckee and Kings Beach meets this definition. Under this alternative, setting up specific days for specific trips would provide increased mobility and would address some of the needs of area residents. A reasonable option would be to offer service one day per week, with round-trip runs in the morning, mid-day, and late afternoon. Ultimately, the right plan would be based upon the demand and frequency needed. A more detailed demand analysis should be conducted to identify this information, including discussions with local social service agencies and medical providers to narrow down the most frequent days needed for trips and how often they are needed. Additionally, Eastern Nevada County would need to hold discussions with Telecare to negotiate pricing and contract details to determine if the service is financially feasible. As a starting point for discussions, the current Telecare operating cost per vehicle-hour is on the order of $42 (per the *Western Nevada County Transit Operators Triennial Performance Audit*, LSC Transportation Consultants, Inc., 2013). Assuming a total of 8 hours per day to provide service, this option would incur an operating cost of approximately $17,500 per year.

Another option would be to provide Truckee – Kings Beach service only one day per month. While this would reduce operating costs, the difficultly of scheduling riders for this very limited service would result in minimal ridership. The effort needed to establish this service would not be warranted by the benefit to the community, and this option is therefore not recommended.

Provide Out of Area Medical Trips to Reno and Sacramento / Auburn

As discussed previously, medical trips out of the area are a key mobility issue in the area. While the Tahoe Forest Hospital is a full-service hospital (including a cancer center than provides chemotherapy services, other medical needs are not met. One example is the Veteran's Hospital

in Reno, or other social service related medical needs in Sacramento and Auburn. The need for individuals to travel to "in network" hospitals also increases the need for out-of-area travel.

Contract with Telecare to Provide Out of Area Medical Trips

Gold Country Telecare is a demand response service equipped to perform both local and out of area trips. One option for non-emergency medical transportation would be to contract with Telecare for this service. Funding would need to be obtained from other sources, as CTS funding is not available. Service for out of area medical trips is primarily needed to Reno and the Sacramento / Roseville / Auburn areas. The frequency of needed service is unknown, and would require discussions with potential passengers as well as local medical providers in each area as to how many clients are coming from Truckee and how often they have appointments. A reasonable option would be to offer service to Reno one day per week and service to the Sacramento region one day every other week. This would require approximately 10 vehicle-hours of service weekly (for Reno service) plus 12 vehicle-hours every other week (for Sacramento / Roseville / Auburn service). At the $42 marginal cost figure per vehicle-hour identified above, this equates to an annual operating cost of approximately $35,000 per year.

The benefit of contracting with Telecare is that they have all the necessary drivers, vehicles (including wheelchair equipped vans/buses) and dispatch staff to operate this service. There would not be any initial capital needs associated with this alternative, though in the long run replacement costs for the vehicle may be necessary.

Not all medical appointments would be feasible to include in this service, and in particular, dialysis. Dialysis patients generally need appointments at least three times per week on a regular basis. As such, these patients tend to rely on family, friends or other volunteer driver programs to transport them to their appointments. It is most likely that demand from other patients, as well as funding, is not available to support such a frequent service to meet the needs of dialysis patients.

Veteran's Hospital Van Service

The Veteran's Service Office (VSO) in Nevada County provides free transportation to the Reno Veterans Administration (VA) Medical Center through a volunteer driver program. The VSO uses a 6-passenger van to travel from Grass Valley to the medical center in Reno, making stops in Truckee if there is a passenger need. The Program Manager indicates that service to Truckee residents is only rarely requested. To ensure a seat on the vehicle, a person must have an appointment at the Reno VA Medical Center and must call the VSO at least a week in advance. In most cases, the van does not provide service to residences, but rather will meet the passenger at a location close to the highway (such as the McDonald's on Deerfield Drive). Unfortunately, the van is not wheelchair accessible and cannot accommodate persons using walkers. This program is funded through the Disabled American Veteran's program.

One option would be to better market this service to Eastern Nevada County residents, particularly through the Senior Apartments and other social service agencies. A likely reason that the service may not be used by Truckee residents is that they are unaware of the program. However, one downfall is the lack of wheelchair accessibility, which is important for many persons with medical needs. As such, additional services should be considered in concert with

the Veteran's Service Office program. Additionally, this service is not open to the general public, so non-Veterans are unable to use this resource.

Volunteer Driver Program

Within the Truckee area, there are currently no non-medical senior shuttle programs outside of the Dial-A-Ride service. The ability to provide transportation for social services and medical purposes, particularly to areas not served by demand response, is crucial to improving mobility of Truckee and Eastern Nevada County residents.

In order to have a well-rounded transportation system that provides options to residents in Truckee, the community should look into developing a volunteer driver program that serves qualified residents. A volunteer driver program can be useful in serving rural areas and smaller communities where budgets will not allow all areas to be served, or demand is so low and infrequent that regular service is not warranted.

Some characteristics of existing programs in similar settings include:

- Volunteer driver programs typically start out from a grass roots effort based on an identified need.
- Overseeing the volunteers requires a dedicated individual, likely a paid employee. In some cases, the program is overseen by a board with the rotating chairman overseeing day-to-day operations.
- Some volunteer programs provide reimbursements, while some do not.
- The biggest challenge is to recruit and maintain volunteers, as they need to be motivated by feeling they are providing a worthwhile service. Turnover can be high due to burnout or declining driver ability.
- As gas prices and auto insurance costs increase, volunteers can be more difficult to recruit.
- Grant funding can be obtained to offset costs of reimbursed driver volunteer programs. Using such grants may limit trip purpose and client eligibility.

There are many models from existing programs that can be used as guidance. Tehama County, Trinity County and Amador County, in California, may serve as useful models for service between Truckee and North Tahoe, Reno and the greater Sacramento / Auburn areas, as discussed below.

Example: Tehama County, California

Tehama County has a volunteer driver program to provide medical transportation. The 23 year-old-program is under direction of the Transit Manager (Department of Public Works), with a supervisor working part time Monday through Wednesday to oversee daily operations. The supervisor is paid $9.34 hourly without benefits and has an annual maximum of 1,000 hours.

Tehama County Medical Transportation Services (METS) currently has 12 volunteer drivers. Drivers use their personal vehicles and are reimbursed at the federal IRS rate (currently $0.485 per mile). Drivers are recruited by word-of-mouth. Ten-year DMV records are required, but fingerprinting is not. As of this year, drivers are covered by Workman's Compensation Insurance.

The Supervisor coordinates appointments and assigns trips to drivers. This employee is also responsible for recruiting volunteers, record-keeping and reimbursing drivers. Efforts are made to assign drivers who live closest to the passenger in need for greatest efficiency.

Clients are asked for a $5.00 round trip donation within Tehama County or $10.00 round trip donation to Butte, Glenn, or Shasta Counties. An estimated 80 to 90 percent of clients pay this donation. METS receives $0.14 per mile reimbursement from the American Cancer Society for passengers seeking cancer treatment. There are 150 regular clients. The program provides between 60,000 to 90,000 reimbursed vehicle miles each year. While the program is for medical trips only, clients may do shopping in conjunction with picking up prescriptions at the driver's discretion. Clients must be ambulatory to use the service. Spouses or attendants may accompany the passenger if desired. Most of the clients are elderly, though some children and other adults use the service as well.

Example: Trinity County, California

In response to the need for increased transit services in rural Trinity County, the Trinity County Planning/Transit Department implemented a transportation assistance program. Human Resource Network (HRN), a private non-profit organization, is contracted to administer the program. The HRN program serves residents in the northern portion of the county and a similar program is administered through Southern Trinity Health Services serving the southern portion of the County. Unlike the previous example, Trinity County's program does not have a list of volunteers. Persons needing transportation to medical or social service appointments may recruit their own volunteer who will then be reimbursed for mileage at the rate of $0.25 per mile. A person is eligible for the program if they are:

- A Trinity County resident
- Unable to transport themselves because of no transportation, unable to drive because of medical reasons or advanced age
- Are in a low-income category (income no more than 200 percent of the poverty level) and have no money for gas

HRN has developed a process to ensure that the program is not being abused. First, the volunteer and the applicant are required to meet with HRN staff to discuss the arrangement. HRN staff confirms that the driver holds a valid California Driver's License, valid insurance and vehicle registration. The medical or social service provider is also contacted to verify the appointment. The volunteer driver records the mileage of the trip and submits a receipt for transportation funds to HRN. Staff compares the mileage to actual distance between major destinations before paying the driver.

Trinity County will also reimburse residents needing transportation to a medical or social service appointment who are able to drive themselves but cannot afford to pay for gas. Again, the medical or social service provider is contacted before a fuel voucher is provided. The fuel voucher is valid for seven days. Volunteers / applicants are not limited as to where they can travel for medical and social service appointments, but will only be reimbursed for up to the equivalent of one tank of gas.

As HRN was an established non-profit agency in Trinity County before the transportation assistance program was implemented, actual staff time and set up costs for the program were minimal. For example, HRN already had a database system in place to record volunteer trips as well as existing relationships with vendors such as the Mini-Mart (HRN reimburses persons in need of propane).

Each quarter, HRN bills Trinity County for the cost of the vouchers. Trinity County also paid HRN an administrative fee of 10 percent of contract costs at the beginning of the contract. The original contract in Fiscal Year 2006-2007 to operate the Transportation Assistance Program with HRN was $15,000 per year. The program was so popular that an additional $10,000 was added within the first year of operation. Currently, Trinity County spends about $30,000 annually on the Transportation Assistance Program. HRN staff feels that the administrative fee they are paid does not completely cover actual administrative time spent on the program. Between meeting with the program participant, contacting providers and accounting for the trip, HRN staff estimate it takes about 1.5 to 2 hours of staff time for each new program participant. This equates to roughly a quarter-time administrative position.

Example: Community Resources Connection, Gualala, California

Located along the remote Sonoma/Mendocino Coast, Community Resources Connection (CRC) started in 1999 as a telephone referral service for South Coast Seniors, Incorporated. CRC gave referrals to individuals seeking services in the community, and offered a handy-person service wherein volunteers would go to callers' homes to do minor repairs. The majority of phone calls were inquiries regarding transportation services, primarily for medical appointments. Responding to this need, CRC organized a volunteer transportation program offering free transportation to anyone in the region with an "essential need."

Approximately 35 volunteer drivers provide the transportation, using their own private vehicles and gasoline. Drivers do have the option of receiving gas cards as partial reimbursement for their mileage, but 90 percent of drivers opt out of reimbursement. In addition, the regional transit provider (Mendocino Transit Authority) leases a Dodge Caravan to CRC for $1.00 per year. The van goes to Fort Bragg on the first Wednesday of each month, and to Santa Rosa on the first Friday of each month, then on each Thursday for the remainder of the month. The van also uses volunteer drivers. There are currently four volunteers who are qualified to drive the van, while there have been as many as eight volunteers who could drive the van in the past. Van drivers must be fingerprinted and trained. Passengers are not charged a fare, but are encouraged to make a donation to the CRC; most donate a nominal amount.

The CRC subsequently shifted from being part of the South Coast Seniors to receiving administrative oversight from Redwood Coast Medical Services. In 2004, however, CRC became a 501(c)(3) nonprofit corporation. CRC has a Board consisting of 11 volunteers who meet on a

monthly basis to handle normal Board matters as well as manage the organization's administrative functions. In addition to Board members, CRC has volunteer committee chairs and members who are not on the Board.

The Redwood Coast Medical Services (RCMS), the only local medical clinic in the region, provides for the operating cost of the van (insurance, gasoline, and maintenance). The in-kind service by RCMS includes office space, office expenses including a toll-free phone number and insurance, maintenance and gasoline for the van. Approximately 60 RCMS clients use the van service annually.

In addition to costs covered by the RCMS, the CMC provides cash outlay of approximately $5,000 per year. This covers the cost for the Directors and Officers and General Liability Insurance, as well as office supplies and an annual volunteer appreciation dinner. Cash contributions are received from clients, the general public and board members.

CRC provides approximately 500 one-way passenger trips annually: 410 of these are local trips (less than 20 miles round trip) while 90 are to Fort Bragg or Santa Rosa (110 to 170 miles round trip). Passengers call CRC Monday through Friday between Noon and 4:00 PM to schedule trips, with 48-hour advance notice required. Most of the trips are for medical or dental appointments, or for other errands for daily living including grocery shopping. Phone volunteers who arrange the trips encourage the passenger to make efficient use of the service by completing several errands in one trip, rather than scheduling trips on multiple days. In total, CRC services travel approximately 18,000 miles per year: 12,200 in private vehicles and 5,800 in personal vehicles.

Example: Riverside County, California

Riverside County provides the "TRIP" volunteer reimbursement program, which has proven to be successful in providing low cost transportation to seniors and disabled persons. It is organized as a trip reimbursement program, with volunteer drivers. Since its establishment in 1993, the program has provided over 1 million free trips for over 5,000 passengers. The program has completed 14.5 million miles of assisted travel through the help of nearly 1,000 volunteer drivers since 1993.

The Beverly Foundation has been promoting the Riverside County program as a model for new programs nationwide. Part of this effort has been the establishment of the triptrans.org website, which provides information regarding the benefits of this approach, and the start-up requirements for a new program. By using an existing organization, such as the TMA, many costs may be eliminated, such as office space, utilities and computers, as they are already part of the TMA offices. Further, for the Truckee program, a full-time administrator may not be necessary given the anticipated size of the participant group. The actual computer software is the only fixed costs regardless of how the program is administered, and is approximately $600.

Establishing a Volunteer Program in Truckee

To establish a volunteer driver program, the first step would be to determine who would oversee the program. The most likely candidate is the Truckee – North Tahoe Transportation Management Association, particularly if the Truckee program is part of a larger program also

encompassing other portions of the "Resort Triangle." The TNT-TMA has some staff capacity and office space that could be used for this program, as well as knowledge and enthusiasm for a volunteer program. Other potential candidates are the Nevada County Transportation Commission or the Town of Truckee, though in either case this would be taking on a new role. Tehama County's METS program provides a good model for this set up. Operating under the County (or other entity) would require a half-time administrative position to recruit and train volunteers, market the program, oversee volunteer dispatching efforts, and for record-keeping. Including benefits, this position is likely to cost approximately $15,000 annually. Funding would need to be provided to the TNT-TMA for this program.

Another potential candidate to initiate the program is Truckee's existing Senior Program. Senior citizens are often both the volunteers and clients of volunteer driver programs, and association with the Senior Apartments might increase recruiting efforts. However, seniors may experience declining health and physical limitations that make turnover high and retaining volunteers difficult. Despite this, experience has shown that it is not a problem for volunteers to see the need for their services (even when a paid program is available), so long as it is focused on trips that the public transit program is not also serving. The volunteers typically understand that the public sector cannot afford to provide traditional transit service to all portions of the community at all times, and therefore volunteers are willing to step in to provide service beyond the area served by public transit.

This chapter provides options and strategies to address the various capital needs associated with a transit program, including the transit vehicle fleet and bus stop improvements.

BUS FLEET EXPANSION / REPLACEMENT

Replacement Vehicles

Truckee Transit currently has a fleet of five buses for fixed route and Dal-A-Ride services, with an average age of 4.8 years. As shown in Table 33, all of the Truckee Transit vehicles are due for replacement within the timeframe of this Transit Development Plan. An immediate need for a replacement vehicle is due in 2013, to replace one of the Dial-A-Ride buses with over 150,000 miles. The second Dial-A-Ride bus is due for replacement in 2014. The main vehicle used for the fixed route and winter shuttle is in need of replacement in 2016, based on mileage and age. The two back up buses (one for Dial-A-Ride and one for fixed route) should be replaced by 2018. The cost of a new demand response sized vehicle is roughly $80,000 and for a fixed route bus the cost would be roughly $110,000. These figures are for diesel fueled vehicles.

TABLE 33: Truckee Transit Fleet Replacement Plan

Vehicle Type	Passenger Capacity	Year	Vehicle Age	Existing Mileage	Average Yearly Mileage	Replacement Year
Chevy Aerolite	10	2007	6	142,973	23,829	**2014**
Chevy Aerolite	10	2007	6	150,485	25,081	**2013**
Chevy Aero Elite	32	2009	4	91,721	22,930	**2016**
Chevy Aero Elite	32	2009	4	73,161	18,290	**2018**
Chevy Aero Elite	12	2009	4	71,714	17,929	**2018**

Source: Town of Truckee; LSC Transportation Consultants, Inc

Additional Vehicles

The service alternative presented in Chapter 5 for year round fixed route service plus the two bus Winter shuttle option would require the need for an additional vehicle. Currently, the winter service operates two shuttle buses. However, with the fixed route in addition to that service an additional vehicle would be in operation. The fleet does not have the capability to accommodate this as-is, considering one of the back-up vehicles is sized for demand response services. Given this, should the Town implement the alternative, an additional bus would need to be purchased. It is recommended that the vehicle be similar to those currently used by Truckee Transit, with a seating capacity of at least 33 passengers (including wheelchair capacity). Bike racks should

also be installed on the new vehicle. The cost of the new bus would be on the order of $110,000 in current dollars, assuming diesel fuel vehicles are used.

Fuel Type

To reduce pollution from mobile sources, both the federal government and the State of California have developed regulations for transit vehicles:

1. The United States Environmental Protection Agency (EPA) has adopted a variety of regulations as required by the Clean Air Act Amendments (CAAA) of 1990. Standards for transit vehicles state that Particulate Matter emissions (PM, or "dust") must be cut by more than 90 percent or no more than 0.05 grams per brake-horsepower per hour (g/bhp-hr). Other standards include: nitrous oxide (NOx), no more than 4.0 g/bhp-hr; hydrocarbons (HC), no more than 1.3 g/bhp-hr; and carbon monoxide (CO), no more than 15.5 g/bhp-hr.

2. The State of California signed Assembly Bill 32 (AB 32) into effect in 2006, which requires that GHG emissions be reduced to 1990 levels by the year 2020. This bill does not include specific strategies, but rather provides guidelines and goals for transit operators to follow, including recommendations that State employees use public transit in order to reduce vehicle miles traveled (VMT).

3. In addition to AB 32, California lawmakers also signed SB 375, which lays out additional GHG reductions from regional MPOs. This bill addresses the concern that GHG reductions from improvements to vehicles, such as more efficient and cleaner fuels, would be lessened by increased VMT. This bill seeks to integrate transportation planning, land use and housing to reduce VMT and subsequent GHG emissions from cars and light trucks. Additionally, SB 375 also requires CARB to develop regional reduction strategies through the development of a "Sustainable Communities Strategy" that relates the Regional Transportation Plan (RTP) to the housing needs allocation. Specifically, SB 375 states that every transportation planning agency must prepare and adopt a RTP with a goal of achieving a "coordinated and balanced regional transportation system," which includes public transit among other modes. The bill also requires that public transit agencies supply transit data so as to be able to measure equity, accessibility, and to determine what percentage of the population the transit system serves. Further, a balanced household growth target must be included in the RTP so that public transportation and existing infrastructure can be utilized to its best capacity; this would include Transit Oriented Development.

With AB 32 requiring emissions be reduced to 1990 levels by 2020, it is important to address the topic of alternative fuels in the study, as discussed in the following sections.

With the need to replace aging vehicle and expand the fleet to meet increased service demand, it is important to discuss the options regarding fuel. Alternative fuels can not only provide cost effective options, but they also work towards clean air and other environmental goals set forth by local, state and federal programs. The following discussion presents the different alternative fuels, their advantages and disadvantages, their "global" affect, and their potential application for the Truckee Transit fleet.

In recent years, there have been more studies regarding alternative fuel use in transit vehicles. The desire to reduce dependence on foreign oil, as well as comply with air quality requirements

set forth by local, state and federal governments have been the main driving force. Other reasons transit agencies have made the switch to alternative fuels over diesel include improved public perception of the transit system and to attract new riders, higher levels of grant programs for alternative fuel bus purchases, and to achieve local environmental goals and priorities. Along with the positives are also negatives or deterrents to using alternative fuels. These range from higher capital costs, higher operating costs, reliability concerns, limited availability of alternative fuels, and potential interruptions of fuel delivery. For each of the potential fuel types for Eastern Nevada County, these issues are discussed in more detail in the following section.

Compressed Natural Gas (CNG)

Natural gas is a domestically produced alternative fuel and is readily available to end users through the utility infrastructure, and is currently used by the TART buses. The strength of CNG as an alternative fuel for transit buses is that it is generally less expensive per unit of energy than gasoline or diesel fuels. Per the Clean Cities Alternative Fuel Price Report in July 2012, the average price of CNG in the West Coast region was $2.24, compared to an average of $3.71 for gasoline and $3.92 for diesel. On a nationwide scale, CNG costs averaged $2.05 per gallon. Additionally, the nationwide average price in gasoline gallon equivalents (GGE) in July 2012 was $2.05 and in diesel gallon equivalents (DGE) was $2.28.

The fuel also has the potential to reduce NOx emissions and PM when compared to diesel, although low sulfur diesel fuel used in conjunction with particulate matter traps can reduce PM emissions by a similar amount. Greenhouse gas emissions from CNG vehicles are approximately 15 percent to 20 percent lower than from gasoline vehicles, since natural gas has a lower carbon content per unit of energy than gasoline. However, CNG generally vehicles have about the same greenhouse gas emissions as diesel fuel vehicles, with lower CO_2 emissions offset by higher hydrocarbon emissions.

Many people – both inside and outside the transit industry – perceive CNG as the future fuel of choice. Others see CNG as a stop-gap measure that can be used to reduce vehicle emissions until other technologies (hydrogen fuel-cell or combustion-electric hybrid) are developed further. Indeed, the decision to pursue CNG comes down to the underlying goals of the agency considering alternative fuels, the local politics, the financial resources of the agency, and the commitment of decision-makers.

The advantages of a CNG bus are the lack of visible pollution and quieter operation. The problems encountered with CNG include the inconsistent quality of local CNG supplies, limited range of CNG vehicles, and continued industry concerns regarding reliability. Specialized maintenance training and equipment, along with modifications to facilities to safely accommodate CNG, also add to costs.

According to the 2011 APTA Public Transportation Vehicle Database, a 35-foot CNG bus in 2011 cost on the order of $340,000, substantially less than a hybrid bus ($550,000) and slightly more than a diesel engine bus ($250,000). The higher cost relative to diesel engine vehicles is due to the higher cost of the engine itself and the higher cost of the fuel tanks. The useful life of a CNG engine is roughly equivalent to that of a traditional diesel engine, depending on the level of maintenance as well as level of contaminates in the fuel. The CNG tanks, however, are

typically certified for 15 years; if careful maintenance on the remainder of the bus allows its life to exceed this period, a transit agency can be faced with expensive replacement of the tanks.

In a 1996 Department of Energy report, Pierce Transit (Tacoma, Washington) estimated that CNG engines are about 20 percent less efficient than diesel engines on a per gallon equivalency, which reduces the range of CNG buses. CNG buses are described as having a driving range of about 300 miles (depending upon the capacity of the gas cylinders) compared to a little more than 400 miles for diesel buses. Typically, buses smaller than 35-feet in length are unable to accommodate enough fuel tanks to operate a full urban cycle service day without refueling.

Another important consideration is that the power provided by CNG engines, while it has improved over recent years, is still 25 to 30 percent lower than the power provided by a similar diesel engine. This can result in substantial operational problems on steeper grades present on the Winter shuttle route. In addition to delaying routes, this increases the traffic congestion caused by bus operations.

Overall, based on research and case studies in similar rural areas, CNG is not the ideal fuel for Truckee Transit to pursue in the long run. The capital costs for vehicles outweigh the potential benefits of CNG as an alternative fuel.

Ultra Low Sulfur Diesel

Diesel-fueled engines have traditionally dominated the transit vehicle marketplace with their fuel efficiency and durability. From an air quality perspective, diesel engines have very low tailpipe emissions of CO and other organic gases. The concern from an air quality perspective, however, has been the emission rates of NOx and PM. The July 2012 Clean Cities Alternative Fuel Price Reports shows that the current cost of diesel fuel is $3.92 per gallon on the West Coast, and $3.52 nationwide; the GGE equivalent was $3.36 for the nationwide average.

Due to increasing environmental pressure to reduce the above emissions, the Environmental Protection Agency has developed stringent NOx and PM regulations, as referenced above. The final Clean Air Amendments permit the use of clean diesel in urban buses, provided that the clean diesel engines meet the PM standards. In partial response to the 1990 CAA amendments for cleaner burning fuels and the continued development of the previously mentioned alternative fuels, the traditional diesel fuel engine has made great strides toward evolving with a cleaner burning particulate trap and catalytic converter technology.

Ultra-low sulfur diesel (ULSD) is diesel fuel with 15 parts per million (ppm) or lower sulfur content. In 2010, the U.S. Environmental Protection Agency required 100% of the highway diesel fuel refined in or imported into the United States to be ULSD. This ultra-low sulfur content enables use of advanced emission control technologies such as particulate traps and catalytic converters on light-duty and heavy-duty diesel vehicles. When combined with advanced emission control technologies, reductions from use of clean diesel can be equivalent to removing the pollution from more than 90 percent of today's trucks and buses.[1]

[1] United Stated Department of Energy Alternative Fuels and Advanced Vehicle Data Center, 2011.

While ULSD typically does not impact vehicle performance, fuel economy can be compromised since the process that produces ULSD can also reduce the fuel's energy content. Additionally, lubricity is reduced as a result of removing the sulfur. This can be resolved by adding various additives to the fuel before retail sale or by the addition of biodiesel.

Diesel facilities are some of the least expensive to maintain, with an estimated yearly cost of $5,800 to $8,200 per year. This, in addition to the improvements to diesel engines and the current wide availability of the fuel, make diesel an attractive choice for many agencies.

As technology with diesel engines improves, this fuel type becomes a much more favorable option for Truckee Transit. The costs associated with it are very minimal, if there are any at all, and air quality goals can still be obtained.

Fuel Type Summary

No local requirements for alternative-fueled vehicles have been implemented in Nevada County. The substantial grades on the Winter shuttle route and the reduction in power associated with the current CNG engines would have a negative impact on transit operations. Finally, experience at other small transit agencies in similar service areas has not been encouraging. The Gold Country Stage system in Nevada County, California has experienced maintenance cost per mile figures for their fleet of nine CNG-powered buses to be similar to those of diesel buses at or past their economic useful lives. Indeed, the Gold Country Stage's CNG-powered buses cost (on average) 38.5 percent more to operate than their diesel-powered buses. This service, along with TART's CNG fleet, has also experienced problems associated with inadequate engine power. The Gold Country Stage recently sold their CNG-powered buses so that they may pursue traditional gasoline- and diesel-powered vehicles.

Barring fleet-wide conversion to alternative fuels, a number of steps can be taken to substantially reduce the air quality impacts of gasoline- and diesel-fueled transit buses. Various transit systems have been successful in reducing PM emissions through the application of modern gasoline and "clean-diesel" technology. In particular, the utilization of a low sulfur diesel fuel has proven to reduce the average annual PM emissions of a transit coach from 935 pounds to 260-300 pounds – roughly a 70 percent reduction. In addition, installation of an electronically controlled fuel injection system and specially designed transmission has dropped emission levels by 120 pounds of PM annually, for a total reduction in emissions of 87 percent.

Truckee Transit should remain open to the ideas of alternative fuels. However, it would have a greater impact on local air quality through the purchase of modern gasoline and diesel equipment that meet stringent EPA requirements, and by applying the dollars saved in maintenance costs to the provision of transit services that take auto trips off of the regional roadways.

Transit Stop Improvements

Truckee has recently completed a significant program of bus stop improvements, including provision of new shelters / benches and comprehensive signage, as a result of the *Truckee Bus Stop Improvement Plan* study. The study prioritized the improvements, with new signs and better identification of bus stops being a top priority. Additionally, stops that require pullouts were also considered to be high priority.

While the Town has replaced signs to reflect the current Truckee Transit logo and name, as well as some of the bus stop improvements, there are still a number of elements that have yet to be completed. The following are the improvements that should be completed as funding is available, per the study:

- New bus stops at the veterinary hospital / Martis Valley Professional Center, Town Hall, Coachland Mobile Home Park, Alder Creek Middle School, Young Life and Boreal Mountain Resort.
- Relocation of bus stops at Industrial / Pioneer Trail, Ski Academy and 7-11.
- Removal of five bus stops at Donner Pass Road / Summit Drive, Tahoe Donner beach, Loch Leven Lodge, Donner Lake Boat Ramp, and Gift Shop / Village Resort.
- No parking signs near stops and transit route / schedule information at certain bus stops.
- Two new bus shelters at Mt Judah Day Lodge and the Donner Summit Lodge.
- Replacement of existing bus shelters that are not consistent with newer styles, including Gateway Center / Bank of America and West End Beach.
- New bus pullouts at Donner Pines Market, West End Donner Lake, Sugar Bowl Ski Academy, Donner Ski Ranch and Donner Pass Road / Soda Springs Road.

Additionally, as ridership grows, new stops may require additional passenger facilities. The "street furniture" provided by the transit system is a key determinant of the system's attractiveness to both passengers and community residents. In addition, they increase the physical presence of the transit system in the community. Bus benches and shelters can play a large role in improving the overall image of a transit system and in improving the convenience of transit as a travel mode. More importantly, shelter is vital to those waiting for buses in harsh weather conditions. In addition, passengers could benefit by installing passenger amenities at major bus stops, particularly adjacent to regional shopping centers, medical facilities, and social service agency facilities.

Adequate shelters and benches are particularly important in attracting ridership among the non-transit-dependent population – those that have a car available as an alternative to the bus for their trip. Preference should be given to locations with a high proportion of elderly or disabled passengers and areas with a high number of daily boardings. In general, stops with 5 or more boardings per day should include a bench, and at stops with 10 or more boardings, a shelter is appropriate. Lighting and safety issues are equally important along major highways. Consideration of evening service should include an analysis of lighting needs at designated bus stops. This could range from overhead street lighting to a low powered light to illuminate the passenger waiting area.

DIAL-A-RIDE MANAGEMENT STRATEGIES

Truckee Transit's Dial-A-Ride program is currently operated under contract with El Camino Trailways. Policies regarding this service are minimal, and for those that are identified, they are not always being followed. To maximize the efficiency of the Dial-A-Ride service, and to continue providing quality service to those residents that need the service the most, it is recommended that new and improved performance and management strategies be implemented.

Performance and Productivity

Indicators of a demand response systems productivity and performance can be measured by passenger-trips per vehicle service hour and operating cost per passenger-trip. Data presented in earlier Chapters indicates that Truckee Dial-A-Ride generated an average of 3.1 passenger-trips per vehicle service hour and $28.02 per passenger-trip. A survey of representative systems by the TCRP (TCRP Report 124, *Guidebook for Measuring, Assessing, and Improving Performance of Demand-Response Transportation)* showed a typical range between 1.77 and 3.84 passenger-trips per hour, and $11.36 to $20.80 operating cost per passenger-trip (based upon the survey of small urban services). Given the large area served by Truckee Dial-A-Ride and the relatively low concentration of ridership demand, the current service productivity is not unusually low, however Dial-A-Ride's operating cost per passenger-trip is slightly high. Poor performance in operating cost per passenger-trip can be attributed to high operating costs or low productivity. Given the existing contract cost between the Town of Truckee and El Camino Trailways, it is likely not the operating costs that are producing the poor performance. Low productivity is generally the result of the following:

- *Scheduling practices that do not effectively group similar passenger trips:* Truckee Transit's scheduling practices are very inefficient. While driver logs show that there is grouping of similar passenger trips, this is not occurring as much as it should. The Senior Apartments and other shopping trips are a good example of where improvements could be made.

- *Limited dispatch control that is not able to effectively manage service operations and respond to changes on a real time basis:* There is no formal dispatch with the Dial-A-Ride program, which can make service operation inefficient.

- *Scheduled revenue hours that are not aligned with ridership demand:* As discussed in the Service Alternatives section, Dial-A-Ride currently is operating more revenue hours than there is demand for. Reducing the hours would improve the productivity of the service.

- *High rates of no shows and late cancels:* "No Shows" (passengers who make reservations but do not show up for a trip) and late cancellations (passenger who cancel their reservation too late for a van to be efficiently re-purposed. Because this information is not formally tracked, it is difficult to tell how often these are occurring and whether they are

making an impact on productivity. This information should be tracked so that issues can be identified.

- *Low density of passengers within the service area:* The Town of Truckee is not a densely populated area, with many trips generating from dispersed developments such as Glenshire or Tahoe Donner. While this cannot be changed, it may be impacting the productivity of the service, suggesting that improvement should be made elsewhere.

- *Lengthy passenger trips:* Related to the above bullet, the low density of Truckee results in longer passenger trips. Trips made from the Glenshire are a good example of this.

Overall, the best ways to improve productivity that could be applied by Truckee would be to improve dispatching and scheduling. Factors such as service area size and density, as well as ridership demand, are either uncontrollable or partially controllable by the service provider. Should Truckee be able to create effective manifests, have the ability to impact real-time operations, and most importantly, match scheduled revenue hours with ridership demand patterns, it is likely that productivity would improve.

Reservation Requests

While the Truckee Transit website notes that passengers must call at least 24-hours in advance, passengers are not always following this and sometimes call the same day for service (and are accommodated). A review of the daily day planners used for reservations shows that 25 percent of the reservations are made the same day. Most transit systems require passengers to make trip requests at least one day in advance, and no more than 14 days in advance, and must make their request by 5:00 PM the day before the trip is scheduled. However, there are two methods for reservation requests utilized by service providers – advanced request and immediate request. Truckee Transit is currently operating under the immediate request service, yet in a limited capacity. With advanced reservation policies, the Dial-A-Ride system can focus on refining the daily schedule and manifests, which allows for improvements to performance. Conversely, with immediate request service, the operator is able to change and add trips on a real-time basis, which can result in higher ridership (though at a higher cost). Further, cancellations and no-shows are less frequent with immediate response.

Performance has been noted as one issue that could be improved with Truckee's Dial-A-Ride program, as discussed above. Given that the immediate response type of reservation system can improve performance in cases where there are not a lot of subscription trips and there are "holes" to fill in the schedule, Truckee Transit could continue this practice. However, in order to improve operations and safety, the system should utilize an independent dispatcher. This would decrease safety issues while improving performance and continuing with existing reservation policies. The dispatcher would answer all phone calls pertaining to Dial-A-Ride trips, and would schedule rides accordingly based on availability. A designated dispatcher would be able to cluster trips so as to maximize vehicle-hours and would be able to more efficiently schedule day-of trip requests.

Late Cancellations and No Shows

Performance and productivity can be impacted by many factors, especially by no shows and late cancellations. A no show is typically defined as when a passenger cannot be located at the specified pick-up location or refuses a trip, and a late cancellation as when a passenger has called to cancel after the driver has departed from the previous passenger pick-up/drop-off and not yet arrived for that passenger's scheduled pick-up. A late cancellation is also referred to as "insufficient notice." Both no shows and late cancellations can significantly reduce the effectiveness of a demand response service, by expending resources while not resulting in a completed trip. Currently, Truckee Transit does not always note no shows or late cancellations on their logs, and therefore this key data is not sufficiently tracked. The Dial-A-Ride contract provider should be accurately logging this information and reporting it to Truckee Transit on a monthly basis.

Policies for Late Cancellations and No-Shows

As noted, Truckee's Dial-A-Ride program does not currently have any policies related to late cancellation or no shows. A TCRP study showed that over 91 percent of surveyed demand response programs (123 respondents, total) had written policies. Policies to address these occurrences should be developed to ensure a more efficient, reliable and timely service. The policy should be strictly enforced to encourage passengers to follow through with their scheduled trip or cancel within a timely manner. The TCRP *Synthesis 60* study showed that while a system may have policies developed and in place, a large proportion are not thoroughly enforcing them or have not enforced them at all.

A typical policy defines late cancellations and no shows (which has already been done) and establishes penalties for riders who do not comply with the requirements, which may include suspensions or fines. The majority of demand response systems enforce policies by suspending passengers with excessive late cancellations or no shows, rather than fines. Truckee Transit would have to determine which would be most appropriate for their system, and determine the guidelines for those. For example, if suspensions were the chosen "action," they would need to define the suspension period for the rider, such as 30 days, 20 days, etc. A sliding scale could also be applied, whereby additional cancellations and no shows result in a longer suspension time. Some agencies and programs have developed a points system to track these and to develop their policy. On the other side, the points can also be used as part of an incentive program, which is discussed in more detail in the following section.

An appeals process should also be developed, which could be in the form of an informal hearing process for riders who wish to dispute no show or late cancellation charges. Such appeals may be the result of circumstances that were not under the passenger's control, and they would like to provide reasons for the occurrence. Paratransit service should be provided to the passenger during the appeal process, as no sanctions would have been imposed. If a determination is made to impose a fine or suspension, a notice should be sent citing the action taken and why they were taken. A more formal appeal process should also be provided to the passenger; this should be consistent with appeal procedures used when applicants are denied ADA eligibility.

It is recommended that upon a no show, subsequent trips scheduled for that day for a passenger should not be automatically cancelled. The policy should establish a procedure for

determining whether the remaining trips will be honored, and should also develop an internal procedure for identifying and handling those trips. A written procedure for defining and addressing excused no shows should be developed and clearly communicated with passengers. Further, an internal operating document clearly discussing procedures for handling no shows and late cancellations should be developed for staff. This should include how dispatchers and drivers handle these situations and how to contact passengers.

As part of developing a policy, public input is required by the ADA. This can be achieved through passenger advisory committees (i.e. SSTAC, etc.) or public workshops. By involving the public, passengers may be more aware of how no shows and late cancellations can affect a demand response program, and the agency will gain the valuable input of the persons who rely on and use the service. As a result, policies can be developed that are effective and deemed acceptable by both parties involved, and a greater level understanding of the system can be achieved.

Other Strategies

Incentives to Passengers

As a method to encourage passengers to comply with trip reservation policies, demand response systems have implemented incentive programs. RTC of Southern Nevada, for example, generates reports twice per year showing which passengers have a record of zero no shows. Based on their frequency of use on the system, these passengers receive free ride coupons. Another example is the Utah Transit Authority, who revised their policies to include a Responsible Rider Program. The program rewards riders with good ridership records over a 6 month period and who had at least 6 one-way trips.

Truckee Dial-A-Ride could develop and implement a similar program as part of the overall policy. The program would have to define the parameters of a good ridership record and whether or not there would be different levels of rewards. For example, the more one-way trips a passenger schedules in a given period of time, the greater the reward with a good ridership record. Typical rewards depend on the level of ridership and are in the form of free ride coupons.

Passenger Education Program

Riders should be thoroughly informed on the policies and procedures regarding the pick-up window, wait time requirements, and actions taken by the agency against no shows and late cancellations. Some small urban demand response systems have found great success in reducing late cancellations and no shows by rider education alone, as many passengers may not be aware of the consequences involved with these actions. Truckee Transit should consider developing a passenger education program, targeting how the passenger can cancel rides in advance to avoid late cancellations or no shows, how to schedule trips according to advanced reservation policies, and how to be ready to board within the system's defined pick-up window. Information should also be included on how a rider's actions can affect the overall system, as well as other passengers over the course of the day. By doing so, passengers may be more inclined to take notice of and follow procedures properly. Literature and other materials can be distributed to riders, by mail or on the buses, which include tips on how to address these

issues. New passengers should be provided with a packet that explains all polices currently in place, including tips on how to successfully use the system. Further, the Truckee Transit website should be updated to include all policy and program related information.

In addition to written materials, Truckee Transit may want to consider holding an informative and educational workshop as they implement the new policies and procedures. The workshop may include sessions on how the system works, the policies and standards held by Truckee Transit, and how to use the Dial-A-Ride system effectively. The "hands-on" approach can be more effective, as there is opportunity for dialogue and the ability to clarify questions that may arise regarding policies. This would also give the passengers the opportunity to provide input on the system, which has proven to be valuable for many demand response systems when developing or revising their system's policies.

MANAGEMENT STRATEGIES

Develop Goals, Performance Standards and Reporting Standards

The following goals, performance measures, and standards are designed to reflect the adopted policy statements of the region. The goals establish general direction for policies and operation, are value-driven, and provide a long-range perspective. Standards are quantifiable observable measures that reflect achievement of the goals. The performance measures provide the mechanism for judging whether or not the standards have been met.

Five major goals are identified: a service efficiency goal (reflecting efficient use of financial resources), a service effectiveness goal (reflecting effectiveness in serving passengers), a service quality goal, an accessibility goal, and a planning and management goal. Standards are provided as appropriate, based on observed performance of similar transit systems in California, as well as the existing performance of Truckee Transit services.

Service Efficiency Goal

To maximize the level of services that can be provided within the financial resources associated with the provision of transit services.

<u>All Services</u>

- *Farebox Recovery Ratio Standard* – As a collective system, all routes should meet or exceed a systemwide recovery ratio of 10 percent. Such a standard would comply with TDA standards for non-urbanized transit providers, allowing for various funding opportunities in the County.

<u>Local Services</u>

These standards apply to fixed route, including the Winter Shuttle.

- *Farebox Recovery Ratio Standard* – The ratio of farebox income to operating costs should meet or exceed 10 percent for all fixed route services combined. The individual fixed route and Dial-A-Ride should meet or exceed 5 percent on an individual basis. Based on Fiscal

Year 2011-2012 data, only the Winter shuttle met the individual route standard, however the system met the 10 percent.

- *Subsidy Standard* – The public operation/administrative subsidy per passenger-trip for service should not exceed $25.00, based on industry standards and recent experience. This standard should be adjusted annually to account for inflation. The Winter Shuttle and the Dial-A-Ride are the only services that did not meet this standard, with operating subsidies per passenger-trips of $32.37 and $26.89, respectively.

  The system as a whole met this standard. During Fiscal Year 2011-2012, Truckee Transit had an average operating subsidy per passenger-trip of $19.47.

Service Effectiveness Goal

To maximize the ridership potential of the Truckee Transit services.

All Services

- *Improvement in Effectiveness Standard* – Increase ridership productivity by at least 3 percent annually for each service component.

Local Services

- *Service Effectiveness Standard* – Serve a minimum of 4 passenger-trips per vehicle service hour. The Dial-A-Ride and the off-season fixed route did not meet this standard (3.1 and 2.7 trips per VSH, respectively), however the system as a whole met the standard with 4.0 passenger-trips per vehicle service hour.

Service Quality Goal

To provide safe, reliable, and convenient transit services.

All Services

- *Passenger Load Standard* – For passenger safety and comfort, vehicles should be sized and the transit service operated to limit typical peak loads to the seating capacity.

- *Accident Standard* – Maintain a minimum of 50,000 miles between preventable collision accidents, and 25,000 miles between all types of accidents.

- *Maintenance Standard* – Maintain a minimum of 10,000 miles between road calls. Maintaining a simple log of road calls (including the cause) is recommended.

- *Preventive Maintenance Standard* – 100 percent of preventative maintenance actions should be completed within 500 miles of schedule.

- *Vehicle Standard* – Vehicles should be replaced at the end of their useful lives and according to FTA guidelines. The average fleet age should be no more than six years.

- *Vehicle Cleanliness Standard* – The outside of all vehicles in regular use shall be washed at least weekly. Inside, spot cleaning and trash removal shall be conducted at least daily.

- *Passenger Complaint Standard* – Passenger complaints shall be less than 1 per 5,000 passenger-trips (fixed-route). Management response should be provided to all complaints within one working day.

- *Training Standard* – All services shall be provided by trained, courteous, respectful employees, who are sensitive to the needs of passengers.

Local Services

- *Passenger Amenity Standard* – Shelters should be provided at all transit stops serving 10 or more passengers per day. Seating should be provided at all transit stops serving 5 or more passengers per day.

- *Service Availability Standard* – Provide transit service to major medical, shopping, government, employment centers, and activity centers that can support route service where possible and cost effective.

- *On-Time Performance Standard* – 90 percent of all fixed-route trips should be operated "on-time," defined as not early, and no more than ten minutes late. Performance shall be measured at the route terminus, though evaluation of on-time performance at intermediate time points is encouraged if an on-time issue is identified.

- *Missed Trips Standard* – The proportion of runs that are not operated or are more than 20 minutes late should be no more than 1 percent.

- *Travel Time Standard* – Transit travel should take no longer than 3 times the equivalent automobile trip during peak commute times.

- *Service Frequency Standard* – Provide scheduled service with a maximum headway of 60 minutes in both directions along each route where possible and cost-effective in order to improve service quality.

Accessibility Goal

To provide a transit system that is accessible to the greatest number of persons while maintaining the productivity of the system.

- *Service Area Standard* – Maximize the area provided with transit service while maintaining minimum farebox return standards.

- *Vehicle Accessibility Standard* – Maintain a fully wheelchair-accessible transit fleet.

- *ADA Goal* – Fully meet the requirements of the Americans with Disabilities Act. This includes providing complementary paratransit services for all ADA eligible residents.

Planning and Management Goal

To evaluate strategies which help management maximize productivity while meeting the transit needs of the community and develop a transit program that supports comprehensive planning goals.

- *Planning Standard* – Transit Development Plans shall be updated at a minimum of every five years.

- *Service Monitoring Standard* – Monitoring reports on the effectiveness and efficiency of transit service will be collected from the contractor and reviewed monthly by Truckee Transit staff.

- *Transportation Development Act Standard* – The requirements of the TDA shall be fully met, particularly with regard to addressing those unmet transit needs of the community that are "reasonable to meet."

- *Land Use Planning Standard* – Development proposals shall be reviewed by Truckee Transit staff to assess the effects of development on transit service, and to encourage land development that is compatible with transit service. In addition, roadway modification plans along existing or planned transit service routes shall be reviewed by transit staff.

- *Coordination Standard* – On at least a quarterly basis, potential coordination opportunities with all other public transportation providers in the service area shall be reviewed to ensure convenient connections between services and to avoid unnecessary duplication of service.

- *Marketing Standard* – Marketing efforts shall be conducted to ensure that all service area residents are aware of Truckee Transit services. Targeted marketing efforts shall be conducted for high-potential groups, including elderly, disabled, and low-income residents. Up-to-date schedules and route maps should be conveniently available to the public at all times. A minimum of 2 percent (and preferably 3 percent) of the total annual administrative budget should be expended on marketing efforts.

INSTITUTIONAL STRATEGIES

Put Transit Services Out to Bid

Transit agencies which receive funding through FTA are required to comply with certain federal regulations including those regarding third party contracts. FTA requires that grantees provide "full and open competition" for all third party contracts. The Town has contracted for transit service with El Camino Trailways and its predecessor, Aztec Transportation, for several years and did not solicit bids from other contractors at the end of the last contract. The current contract will expire in December 2013. If the Town chooses to continue to contract for services, the Town should put forth a request for proposals for transit service at that time in accordance with the guidance listed in FTA Circular 4220.1F.

Develop Intergovernmental Agreement with Gold Country Telecare for Transit Service Operations

An alternative to putting the transit services out to bid would be to enter into an Intergovernmental Agreement (IGA) with Gold Country Telecare (GCT) to provide all transit service operations (fixed route and demand response) within the Truckee Transit service area. Gold Country Telecare is the County's CTSA and is considered a public agency in Nevada County, and has been providing demand response / paratransit services in the County for over ten years.

If Telecare were to provide transit service, existing vehicles from Truckee Transit's fleet would be used, and would continue to be maintained by the Town. Additionally, the Town would be responsible for providing the fuel. The role of GCT and the benefits are as follows:

- GCT would provide extensive training on paratransit / demand response and fixed route services to drivers, ensuring they are meeting all requirements and enforcing policies. Additionally, supervision for the fixed route drivers would be provided.
- GCT would provide dispatch service from either their headquarters in Nevada City / Grass Valley or a local Truckee office. This would allow for the use of existing dispatch computer software, and would ensure that dispatchers experienced in demand response services are used. As a result, scheduling would be done remotely rather than by an in-service driver.
- Existing staff would serve as customer service agents for passenger complaints, comments and administrative requests, such as ADA eligibility.
- Advanced reporting techniques would be available to provide detailed reports to the Town of Truckee regarding operations for both services.

By using the existing fleet, GCT costs could be kept down. Initial talks between the Town and GCT indicated that a rate of $50.00 per vehicle service hour would be part of the IGA, and would only include revenue hours. As such, deadhead hours for both the fixed route and demand response would not be charged. Considering that the existing contract with the current provider charges for deadhead hours, it is likely service with GCT would result in lower operating costs, even with a slightly higher per hour cost. Additionally, if the Town maintains its contract with the current provider, costs would increase due to the need to hire a dispatcher; this is included in the GCT per hour cost. Applying the rate of $50.00 per hour from GCT for fixed route and demand response services to the Town's current vehicle hours yields an operating cost (exclusive of maintenance and fuel) of $325,113, including $144,621 for fixed route and $180,492 for demand response services. Comparatively, applying the current service provider's cost of $45.08 yields a total operating cost of $373,908, including $164,170 for fixed route and $209,738 for demand response. The result of entering into an IGA with Gold Country Telecare would be a savings of nearly $49,000 per year, as well as no additional costs for hiring dispatch staff.

Further negotiations would need to take place between Gold Country Telecare and the Town of Truckee, and a formal IGA would need to be developed. However, it appears that there is a benefit to moving towards this type of agreement for the Town financially, in that future costs could be reduced while an improved service could be provided.

Provide Fixed-Route Transit Operations in Truckee through Placer County

An alternative to putting the entire transit program out to bid would be to enter into a Intergovernmental Agreement (IGA) with Placer County to operate fixed route services (including both Truckee Local service and the Donner Summit service). Placer County's Department of Public Works (DPW) currently operates both the TART program in eastern Placer County and Truckee, as well as the Placer County Transit program in western Placer County. Placer County does not currently operate dial-a-ride services. Under this option, Dial-A-Ride would be provided through an IGA with Gold Country Telecare or would be put out to bid.

Under this alternative, the Town of Truckee would continue to maintain the vehicles and provide fuel. Placer County DPW's role would consist of the following:

- Provide drivers, including training and drug/alcohol testing
- Dispatch and supervise the fixed route services
- Respond to passenger complaints and incidents
- Track ridership, and prepare monthly reports to the Town

TART has a bus operations yard on Cabin Creek Road off of SR 89, approximately 3 miles south of Truckee, where their fleet is housed and maintained. While it could be feasible to garage Truckee vehicles there, it would be more effective to continue housing the fleet at the current location. By doing so, deadhead hours would be reduced (based on the proximity to the start of the route at Henness Flat) and the ease of maintenance by Town staff would be increased. An arrangement by which Placer DPW employees report to/from the Town Corporation Yard would need to be defined, as would the mechanism for fare handling.

The IGA would define the cost agreement between the Town and DPW. At a minimum, this would reflect a per-hour charge to cover DPW responsibilities. As mentioned above, Placer County may also require fixed or hourly charges to address administrative / management costs, which would need to be negotiated. The net cost of this option would depend on the scope of the service plan (i.e., which service alternatives are selected), as well as the results of negotiations. Based on the existing TART cost model, a starting point to determine costs would be to use the current marginal hourly cost of $65.14 used for their services. This would cover the cost of driver salaries and benefits, and other related per-hour costs. The existing per-mile cost of $1.01 under the Town of Truckee's Fiscal Year 2012-2013 budget would apply, as would the fixed costs. Using the above per hour figure applied to the existing non-winter local Truckee fixed route service, the contract with Placer County would cost on the order of $148,000 annually. Adding the Town's ongoing fueling and maintenance costs for fixed route services ($47,334 in Fiscal Year 12-13), total annual cost for this service would equal $195,334. This is roughly $6,000 more than the current costs for this service. Note that this is based on the current service plan for the Town of Truckee's fixed route non-winter services.

The benefits of having Placer County DPW operate the Truckee fixed route program include the following:

- DPW has a proven track record of providing reliable fixed route transit services in the Tahoe/Truckee region, and has drivers that are experienced driving the winter conditions experienced in the Truckee area.

- As the Town of Truckee already owns vehicles, there would not be any additional insurance costs or requirements added to the contract cost with Placer County.

- Having both existing TART services and Truckee fixed-route services operated under the same organization would aid coordination between routes, particularly with respect to addressing service delays or interruptions.

- Having TART operating the fixed route is the first step in creating a potentially integrated, region-wide transit system for all of North Lake Tahoe – Truckee. This would include universal fare cards and seamless transfers between TART and Truckee Transit.

While further discussions and negotiations with Placer County would be needed to fully understand the costs and requirements, it appears that this alternative would provide many benefits to the Town of Truckee's transit program.

Advocate State Legislation to Allow Amtrak Thruway Bus Trips within I-80 Corridor Service

At present, public transit services between Truckee and Reno or Sacramento area are limited, particularly for a same-day round trip from Truckee. Rail service is limited to the *California Zephyr*, which is limited to one departure a day in each direction, is not reliable, and requires an overnight stay. Greyhound service is limited to only two departures per day (7:25 AM and 3:40 PM westbound, and 11:59 AM and 5:50 PM eastbound). While this current Greyhound schedule provides a limited opportunity to complete a same-day trip to Sacramento (so long as the activity can be accomplished between a 10:00 AM arrival and a 3:50 PM return departure), same-day trips to Reno are limited by a 12:50 PM earliest arrival and a 2:50 PM latest departure.

In addition to these services, the Capital Corridor Joint Powers Authority operates Amtrak Thruway buses along several highway corridors across Northern California, in order to feed passengers to the core rail service between Auburn, Oakland and San Jose. Along the I-80 corridor between Sacramento and Sparks, three trips are currently operated daily, with stops in Roseville, Rocklin, Auburn, Colfax, Truckee, and Reno. However, at present passengers using the Amtrak Thruway bus service must be taking a trip that also includes a rail ticket. In essence, this prohibits potential passengers from only using the bus component of Amtrak, such as for a trip from Truckee to Reno or Truckee to Sacramento. Currently, in order to use the Thruway bus from Truckee to Reno or Sacramento (and vice versa), passengers would have to have used or be planning to use the Amtrak train and have pre-purchased a rail ticket.

If available for trips not including a rail ticket, the Amtrak Thruway buses would (under the current schedule) provide additional westbound departure times at 8:40 AM, 12:05 PM and 5:40

PM, and additional eastbound departure times at 1:00 PM, 3:35 PM and 6:45 PM. Comparing these times with the Greyhound service times, the Amtrak Thruway departures would not significantly improve travel options for a same-day trip to the Sacramento area. It would, however, provide better opportunities for a same-day trip to Reno. A Truckee resident could travel on the 11:59 AM Greyhound eastbound trip, arrive in Reno at 12:50 PM, and have until 5:00 PM to accomplish their trip purpose before boarding the last Amtrak Thruway departure, arriving in Truckee at 5:40 PM.

In 2007, the Tahoe Transportation District, the City of South Lake Tahoe and El Dorado County passed California State legislation to exempt the similar Amtrak Thruway service on the US 50 corridor from Amtrak regulations requiring Thruway passengers to have a rail ticket. The legislation is found in Appendix B. The legislation states that the bill removes the restriction between Sacramento and the City of South Lake Tahoe "*if no other bus service is provided by a private intercity bus company.*" A similar bill could potentially be implemented for the I-80 corridor, possibly with limitations (such as limiting bus-only service to Truckee – Reno – Sparks) in order to minimize perceived competition with Greyhound service.

As a means to provide Amtrak service and subsequently provide intercity bus service, the Town of Truckee and Eastern Nevada County could consider drafting and supporting a similar bill for the I-80 corridor. This would not only allow for more options for recreational trips to / from Truckee, but also for non-emergency medical and social service trips.

MARKETING STRATEGIES

Marketing in its broadest context should be viewed as a management philosophy focusing on identifying and satisfying customers' wants and needs. The basic premises of successful marketing are providing the right product or service, offering it at the right price, and adequately promoting or communicating the existence and appropriateness of the product or service to potential customers. Unfortunately, the word "marketing" is associated only with the advertising and promotional efforts that accompany "selling" the product or service to a customer. Instead, such promotional efforts are only a part of an overall marketing process. Without a properly designed and developed product or service offered at the right price, the expenditure of promotional monies is often ill-advised.

Obviously, the marketing program must fit within budgetary limitations of any organization. According to the American Public Transit Association, transit providers typically budget between 0.75 and 3.0 percent of their gross budget on marketing promotions (excluding salaries), with the majority around 2 percent. Although this is slightly less than most private sector businesses, public sector organizations can rely more heavily on media support for their public relations programs.

Improve Service Quality

A key precept of marketing is to provide a quality "product." In the case of public transit, a reputation for providing quality service encourages increased ridership and public support for transit. Tax-based funding and fares are more acceptable when service quality is high. A key marketing effort, therefore, is to improve on-time performance, passenger amenities, and reduce in-vehicle travel time. Solving these problems and subsequently improving the public

perception of Truckee Transit's quality of service through marketing is essential. The following monthly service monitoring techniques should be ongoing:

- *On-Time Performance* – Comprehensive records of on-time performance are useful in determining proper scheduling and ensuring quality service. At a minimum, transit supervisors should be required to do a standardized observance of on-time performance as part of their service checks. This data should be entered into spreadsheets to allow tracking. In addition, on-time performance surveys should be conducted at least twice per year.

- *Annual Passenger Survey* – On-board passenger surveys are a vital source of planning information regarding the ridership and the purpose of their trip-making. In addition, surveys are the single best way to gain "feedback" regarding the service. Funding for annual on-board surveys should be a priority. Questions that should be addressed in the annual passenger survey include the following:

  - Day and date that the survey is completed
  - Time at which the survey is completed
  - Route that the passenger is traveling
  - Passenger gender
  - Passenger age
  - Whether the passenger is disabled, and if so, the type of disability
  - Origin of trip (major intersection near trip origin) and trip destination (major intersection near trip destination)
  - Purpose of trip, typically categorized as work, shopping, recreational, social, educational, other
  - Rating of the transit service (poor, fair, good, very good, excellent)
  - Suggestions for improvements in transit service

- *Boarding and Alighting Counts* – It is worthwhile, on at least an annual or biannual basis, to conduct a day-long count for boarding and alighting by stop for each of the services operated. There are a number of useful pieces of information that can be gleaned from a boarding and alighting count:

  - Identify the most important stops
  - Rank bus stops for potential passenger amenities, such as shelters or benches
  - Identify the section along the route where the maximum load occurs. This information is very important in identifying the appropriate vehicle size for the service, as well as to track the service quality issues, such as passenger overcrowding.

Marketing for New Services and Service Changes

One common and important aspect of marketing that could be particularly effective is to increase the awareness of residents to any service changes before they are implemented. Additionally, marketing services is key to generating ridership from the seasonal visitors,

particularly in the winter, in Truckee. This increased awareness would translate into higher demand for transit services. There are several methods Truckee Transit can use to inform residents and visitors of changes to existing services and newly implemented services.

News and Media Coverage

There are many advantages to pursuing news media coverage for a transit system whenever possible. There is little to no cost, it reaches across a broad spectrum of the population and it is credible. By being proactive, a transit agency can make it easy for news media to tell their story. The better the information is that is provided to the media, the more likely they are to use it and the more likely the transit agency will be pleased with the results.

Several steps are involved in taking advantage of local media. The transit system should know the local media (newspapers, radio stations) and should form a relationship with them. The transit agency should know what is newsworthy, such as large system changes or special events. Transit can be tied into timely events, such as touting ridership increase in relation to increasing gas prices, or Earth Day events. Finally, the transit system manager should know how to write a news release and should create a news release calendar to make sure they are regularly taking advantage of this resource.

Community Marketing

This is direct marketing through partnerships with community organizations such as schools and colleges, businesses and employers, social services, senior residences and Senior Apartments, and neighborhood associations. The benefits of community based marketing are that it is effective and inexpensive, and that it capitalizes on transit's unique role as a community service. It also allows the transit agency to specifically target messages and appeals, and it allows them to provide the high information content necessary to generate ridership. It also allows the partner to provide direct feedback on how well transit is meeting their needs.

The first step in community based marketing is to identify a target group and then determine the "gatekeeper" for that audience. For example, the "gatekeeper" for social services would be the director. Truckee Transit engages in community based marketing through relationships it has built and continues to build. Truckee Transit and Eastern Nevada County regularly communicates with the local social service agencies, including the Community Collaborative of Tahoe Truckee, which gets the word out to the major social service organizations in the County.

Presentations

Public speaking is the ultimate low cost marketing tool. It shows confidence in your message and is a great image builder (if done well). It puts a face on the transit organization. It can be done interactively so that the speaker can answer questions and convey customized information. The target audience would likely be seniors, students, welfare to work clients, and employee groups. The presentation can be for non-users as well. Speaking to members of civic and business organizations enables the transit agency to set up an identity as part of the community. It is also useful to present to decision makers and elected officials to maintain a positive image.

Schedule Information at Bus Stops

One marketing strategy is posting schedules at major bus stops. The major benefit from this strategy is that existing passengers and potential passengers would be well informed and provided with easy access to transit information. The disadvantage of posting schedules is that routes and schedules can change frequently. In addition to reprinting costs, additional staff time would be required to keep schedule information at bus stops up to date. Vandalism is another factor which should be considered. This strategy would be beneficial should Truckee Transit implement consistent year round fixed route service.

There are various methods of displaying transit schedules at bus stops. The least expensive method, which is somewhat resilient to weather and vandalism, is placing the schedule underneath a Plexiglas protector inside the shelter or below the bus stop sign post. This would cost approximately $100 per stop.

Truckee Transit System Map

Currently, Truckee Transit does not provide a route map showing the winter and off-season routes, and should consider providing a simple map on the website along with the schedules. Visitors may not be familiar with the location of all stops, and may not be aware of transit services near them. Additionally, because service areas vary by season, it is important to have maps for both services. The map should be color coded to distinguish each route and to clearly show the service areas. Key stops and other major activity centers should also be marked, such as the Senior Apartments, Tahoe Forest Hospital, the Gateway Center, Crossroads Center, and the ski areas. Further, connection points with TART should be shown; this would not only include the Truckee Train Depot, but also the TART stops on SR 89 near the I-80 interchange and any stops along SR 267. Lastly, to help passengers (particularly visitors) with transfers, TART routes should ideally be included as well. A new System Map would be particularly appropriate as part of changes in the service plan.

Internet Website

Truckee Transit currently provides transit information on the Town of Truckee's website, under the Town's Public Transportation department. The website provides very simple information, but could be organized in a better fashion to more easily navigate. First, a system map should be included for both off season (or year-round) and Winter shuttle services. These should clearly indicate the service areas of both routes. Second, headings for each type of service should be easily identified and distinguished. Schedules should be clearly posted for each service, along with fares. Additionally, Dial-A-Ride policies and requirements, including a link to the Rider's Guide, should be clearly posted, such as ADA eligibility, as well as fares and service hours. Because the dates of fixed route seasonal services change each year, it is important that the website be updated regularly to provide accurate information.

Provide Transit Information in Spanish

Per the 2000 US Census, 19 percent of Truckee area residents are Hispanic, many of whom are regular users of the transit services. Truckee Transit should provide translations of all schedules, maps and pertinent website information into Spanish. Further, where feasible,

marketing efforts to advertise new and revised services should also be produced in Spanish, including newspaper ads and posters for distribution at markets and social services agencies.

FINANCIAL SOURCES

Funding Source Overview

Transit funding is obtained from multiple sources, with the most prominent being from Federal and State grant and other programs. Transit funding (not including passenger revenues), particularly in California, can be complicated due to the many available sources. The following is a summary of the available funding sources to Truckee Transit, and includes discussion (where applicable) regarding the new changes from MAP-21. It should be emphasized that there is a high degree of uncertainty regarding many of the transit funding programs over the long-term, as these depend on future decisions regarding public funding priorities.

On July 6, 2012, Moving Ahead for Progress in the 21st Century (MAP-21), a new two-year transportation authorization, was signed into law. This law expands on Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU) provisions, and is designed to strengthen and improve the safety of public transportation programs. MAP-21 resulted in four major change categories: creation of new programs, consolidation of existing programs, repealed programs, and modified programs. Not all of the programs were changed, and not all changes apply to the Amador County Transit Program.

Federal Funding Sources

The Federal Transportation Administration has numerous grant programs available to transit agencies for both operating and capital assistance. Eligibility in many programs is dependent upon population, distinguishing between “urban” and “non-urbanized” areas for funding allocations. Those applicable to Eastern Nevada County are FTA 5309, 5310, 5311, 5313(b), 5337 and 5339; each of these is discussed in detail below.

FTA Section 5309 Capital Investment Grants

Prior to the signing of MAP-21, FTA Section 5309 grants were split into three categories: New Starts, Fixed Guideway Modernization, and Bus and Bus Facilities. As of 2012, under new provisions of MAP-21, this section will only include New Starts; Fixed Guideway projects are covered under FTA 5337, and Bus and Bus Facilities under FTA 5339. In general, grants will be awarded for major investments for new or expanded rail, bus rapid transit (BRT) and ferry systems. Other major modifications to this program include:

- New eligibility for projects that expand capacity by a minimum of 10 percent in existing transit corridors that are at or above capacity, or are expected to be at capacity within 5 years.

- Streamlined project development process, eliminating the alternatives analysis requirement and relying on alternatives developed in metropolitan planning and environmental review processes.

- Streamlined project evaluation and rating systems.

The “Small Starts” component of the New Starts program, which provides funding and oversight for projects seeking less than $75 million dollars in New Starts funds, was authorized for separate funding beginning in FY 2007 under SAFETEA-LU. The Small Starts component funds projects through a single year grant or expedited grant agreement.

In Fiscal Years 2013 and 2014, the FTA has funded this program for a nationwide total $1.9 billion. However, no money has been allocated to Truckee Transit, as projects eligible for this funding are unknown at this time. Future funding may be looked at in more detail as projects are developed and come to fruition.

FTA Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities

FTA funds are also potentially available through the Section 5310 Elderly and Persons with Disabilities Program (largely vehicles), which is administered by Caltrans. This program is designed to improve the mobility of seniors and disabled persons, and is apportioned based on population. Under MAP-21, this program now includes the New Freedom program (previously FTA 5317), further extending grant opportunities for serves geared towards disabled persons that exceed ADA requirements. Funding is split on a 55 / 45 basis:

- A minimum of 55 percent of funds are required to be spent on capital projects that were eligible under the old FTA 5310 provisions. This includes projects associated with services that are designed to improve access to public transportation for seniors and disabled persons, such as demand response programs.

- The remaining 45 percent can be used for projects that would have fallen under FTA 5317 (projects that exceed requirements of the ADA), projects that improve access to fixed-route service for disabled persons on complementary paratransit, or alternatives to public transit that assist seniors and disabled persons (i.e. taxi voucher program or volunteer driver programs).

Consistent with previous requirements, projects that are funded under this program must be part of a coordinated public transit – human services transportation plan. However, under the new law, the previous competitive selection process under New Freedom is now optional.

FTA 5310 requires a 50 percent local match for operating expenses, and a 20 percent match for capital expenses. In Fiscal Years 2013 and 2014, the FTA has allotted roughly $255 million and $258 million for projects, respectively.

FTA Section 5311 Rural Area Formula Grants

Federal transit funding for rural areas (as defined by a population with less than 50,000), such as Amador County, is currently provided through the FTA Section 5311. These funds, administered by Caltrans, are segmented into “apportioned” and “discretionary” programs. 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. As part of the new MAP-21 changes, the "set-aside" for state administration is reduced to 10 percent.

Under the new MAP-21 provisions, this section now includes activities previously covered under FTA 5316, Job Access and Reverse Commute (JARC). Services provided to low income persons to access jobs are now eligible under FTA 5311, and the formula now includes the number of low income persons in the area as a factor. Further, there is now no minimum or maximum on the funding amounts that can be spent on JARC activities. Job access projects are targeted at developing new or expanded transportation services such as shuttles, vanpools, new bus routes, connector services to mass transit, and guaranteed ride home programs for welfare recipients and low-income persons. Reverse commute projects provide transportation services to suburban employment centers from urban, rural, and other suburban locations for all populations.

The FTA has allocated roughly $600 million in funding for Fiscal Year 2013 and approximately $608 million in Fiscal Year 2014 these grants. Of these totals, approximately $12 million is available for the Rural Transportation Assistance Program and another $1.8 million for Projects of National Scope (both under 5311(b)(3)). The remaining funds are reserved for tribal transportation and transit in the Appalachian region of the Country.

In Fiscal Year 2012-2013, the Town of Truckee received approximately $61,857 in FTA 5311 funding. For the upcoming fiscal year, the Town is projecting they will receive additional funds totaling $76,150.

State Funding Sources

Transportation Development Act Local Transportation Funding (LTF)

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

- Two percent must be provided for bicycle facilities (barring certain findings).
- The remaining funds must be spent for transit and paratransit purposes, unless the Transportation Commission finds that no unmet transit needs exist that can be reasonably met.
- If a finding of no unmet needs that are reasonable to meet is made, remaining funds can be spent on roadway construction and maintenance purposes.

In Fiscal Year 2011-2012, the Town of Truckee received $474,129 in LTF funding for transit, and reduced to $359,990 (estimated actual total) for Fiscal Year 2012-2012. The current proposed budget for the Town of Truckee is estimating LTF funding to total $400,614 for Fiscal Year 2013/2014.

State Transit Assistance (STA) Funds

In addition to LTF funding, the TDA includes a State Transit Assistance (STA) funding mechanism. The sales tax on gasoline is used to reimburse the state coffers for the impacts of the 1/4 cent sales tax used for LTF. Any remaining funds (or "spillover") are available to the counties for local transportation purposes.

The Town of Truckee received $69,390 in STA funding in Fiscal Year 2011-2012. Over the last two years this figure has increased. In Fiscal Year 2012-2013, the Town received $90,840 and for the upcoming Fiscal Year, the Town is estimating they will receive $119,688.

CTS Funding

Consolidated Transportation Services Agencies (CTSAs) are the result of the Social Services Transportation Improvement Act, and are tasked with achieving transportation coordination goals for transportation disadvantaged groups. CTSAs are designated by local groups, such as county transportation commissions, LTCs, RTPAs or MPOs.

Under the Act, social service transportation costs include transportation services provided by social service agencies (e.g. vehicles purchased, drivers salary, and maintenance / operating costs); cash payments; purchase of transportations services from public, private or non-profit providers for eligible clients; and payments made to social service agency personnel or mileage reimbursement volunteer driver programs.

Funding for CTSAs is derived from the Transportation Development Act, including Local Transportation Funds (Article 4) and State Transit Assistance funds (Article 6) funds. Article 4.5 of the TDA states that up to 5 percent of a County's local transportation fund can be made available for "community transit services," which are defined as "services which link intra-community origins and destinations." These funds can be used to provide public transit services or can be used for transit services which are used exclusively by elderly and handicapped persons. STA funds can be used for any transit funding, however the availability of these dollars is very volatile and cannot be guaranteed.

In addition to state funding sources, CTSAs can also use several funding sources offered under SAFETEA-LU, including FTA 5310, 5316 and 5317. In order to obtain this funding, CTSAs must implement a locally-developed coordinated public transit human service transportation plan.

In 2012, the Town of Truckee requested they receive CTS funding from Nevada County. Starting in Fiscal Year 2013-2014, the Town will begin receiving funding. The split is determined by population density, which results in the Town of Truckee obtaining roughly 16 to 17 percent of the available CTS funds in Nevada County. In the upcoming Fiscal Year 2013-2014, the Town of Truckee has budgeted approximately $53,973 to transit from this funding source.

Local Funding Sources

Developer and other Local Private Contributions

The Gray's Crossing development is a large residential neighborhood and golf course located in northeastern Truckee of SR 89, north of Prosser Dam Road. The development required mitigation measures to minimize transportation impacts, and is responsible for a portion of transit operating and capital costs equal to roughly 30.5 percent of the total. The amount of contributions made varies each year. In Fiscal Year 2013-2014, the Town is expecting to receive $65,539, compared to $69,668 in Fiscal Year 2012-2013 and $67,639 in Fiscal Year 2011-2012.

The Winter Shuttle is primarily funded through private contributions from the North Lake Tahoe Resort Association, Sugar Bowl Resort, Boreal Resort and the Donner Ski Ranch. This funding is considered to be farebox revenue, for the purposes of reporting. Each entity is responsible for a specific percentage share of the cost, and combined they cover roughly 69 percent of the total operating costs. As funding is directly tied to the cost, the amount received each year varies. For the upcoming fiscal year, the Town of Truckee is projecting they will receive $87,553, compared to $75,876 in Fiscal Year 2012-2013 and $55,200 in Fiscal Year 2011-2012. It is not known how alterations to the Winter Shuttle service would impact the allocations.

FARE CHANGES

Decrease Fixed Route Fares

Fare changes are one method for generating additional funding for the transit system. Increasing fares can provide extra farebox revenue when ridership is already strong and high, and can handle the potential short-term reduction in ridership that is commonly associated with it. Reducing fares can serve as an incentive to generate additional ridership, and in turn, producing more farebox revenue and overall building a higher ridership base as time goes on.

In the case of the Town of Truckee, at $2.50 for general public fixed route fares are on the high end of the spectrum for rural fixed route services, and may be serving as a deterrent for some residents to use the service. Reducing the fare down to $2.00 could increase ridership, however as discussed in the sections below, this is not always the case. Should the Town of Truckee implement the year round fixed route service, naturally farebox revenues would be much higher. Note that the service alternative for the year round consistent service in Chapter 5 does not account for decreased fares; rather, the farebox revenues shown in the analysis reflect existing $2.50 one-way fares.

Table 34 presents a peer review of similar nearby transit systems. As shown, Truckee Transit's fares are higher than most transit systems, with the general public one-way fare being 140 percent higher than the average fare, while the discount fare is nearly 113 percent higher. The average one-way fare for general public was $1.79, with the lowest being $1.25 in the Placer County Transit system; the average one-way fare for discount tickets was $0.89, with the lowest in Placer County Transit at $0.60 per ride.

TABLE 34: Northern California Rural Transit Systems Fare Review

Provider	Single-Ride		
	Regular	Elderly/ Disabled	Youth / Student
Amador Regional Transit	$2.00	$1.00	$1.00
Tahoe Area Regional Transit (TART)	$1.75	$0.85	$0.85
Placer County Transit	$1.25	$0.60	$0.60
Gold Country Stage			
One Zone	$1.50	$0.75	$0.75
Folsom Stage	$2.50	$1.25	$1.25
BlueGO	$2.00	$1.00	$1.00
El Dorado Transit	$1.50	$0.75	$0.75
Average	$1.79	$0.89	$0.89
Truckee Transit	$2.50	$1.00	$1.00
Percent of Average	**140.0%**	**112.9%**	**112.9%**

Source: LSC Transportation Consultants, Inc.

Two options are discussed below for decreased fares – reducing the general public fares to $2.00 and to $1.75. Subsequent discounts are included for the senior, disabled and youth categories.

- The first option would be to reduce the general public fare to $2.00, and maintain the discount fare of $1.00 for seniors, disabled and youth. As shown in Table 35, reducing the fares would increase ridership by roughly 200 passenger-trips (14 percent). However, fares would decrease by $800 per year, or 15 percent.

- The second option would be to reduce the general public fare to $1.75 per one-way trip, with discount fares for seniors, disabled and youth reduced to $0.85 per one-way trip. These fares would be consistent with the TART service, which may offer coordination opportunities in the future. As shown in Table 10, reducing fares to $1.75 would increase ridership by 300 passenger-trips per year, but would see a 22 percent reduction in farebox revenue, or -$1,200 per year. Reducing the discount fare would increase ridership by roughly 60 passengers annually, and would result in a 10 percent reduction in farebox revenue (-$118 per year).

These results suggest that decreasing fares would have a limited benefit in terms of increasing ridership, and generate a modest reduction in overall revenues. Conversely, if consistent year round fixed route service was implemented, ridership and farebox revenues would increase greatly. A fixed-route fare reduction should also be considered as a strategy to encourage shift in passengers from Dial-A-Ride to fixed route services, particularly if reductions in Dial-A-Ride are implemented.

TABLE 35 : Truckee Transit Fare Alternatives

Fare Increase Level	*Existing Fixed Route Service Plan* Annual Ridership	Annual Fare Revenue
Existing Fixed Route General Public	***14,251***	***$5,495***
Passengers in Offseason Paying Fare	*2,198*	
Existing Fixed Route Senior / Disabled / Youth	***1,178***	***$1,135***
Passengers in Offseason Paying Fare	*1,135*	
	15,429	***$6,630***
Value with Fare Decrease		
General Public		
Decrease one-way fare to $2.00	2,361	$4,722
Decrease one-way fare to $1.75	2,464	$4,312
Senior / Disabled / Youth		
Maintain one-way fare of $1.00	N/C	N/C
Decrease one-way fare to $0.85	1,196	$1,017
Change from Existing		
General Public		
Decrease one-way fare to $2.00	200	($800)
Decrease one-way fare to $1.75	300	($1,200)
Senior / Disabled / Youth		
Maintain one-way fare of $1.00	N/C	N/C
Decrease one-way fare to $0.85	61	($118)
Percent Change from Existing		
General Public		
Decrease one-way fare to $2.00	14%	-15%
Decrease one-way fare to $1.75	14%	-22%
Senior / Disabled / Youth		
Maintain one-way fare of $1.00	N/C	N/C
Decrease one-way fare to $0.85	5%	-10%

School District Transit Funding for Special Education Student Transportation Costs

As Truckee's Dial-A-Ride program serves Special Education students (subsidizing the majority of the costs associated with this service) and as this allows the Tahoe Truckee Unified School District (TTUSD) to avoid providing a separate service, the public transit program is currently providing a substantial benefit to the District. An analysis of driver logs indicates that Special Education students comprise just over 9 percent of the transit ridership on Truckee's Dial-A-Ride service. The School District and students rely on the demand response service for off-site classes and work opportunities during school hours, since the District does not provide pupil transportation for these purposes. As this provides a direct benefit to the District (since the public transit program is serving a function that the school district is not covering), funding by the District to help support the Dial-A-Ride program could be considered.

One option would be to negotiate a funding agreement between the Town and District by which the District covers the fully allocated cost of each student, as payment of the full-cost fares of the students. Tracking the specific miles and hours used solely for student transportation would be very cumbersome, and would be complicated by the fact that some vehicle-trips (or portions of vehicle-trips) serve both students and non-students.

A more straightforward means of identifying appropriate fully-allocated costs would be to define an average Dial-A-Ride cost per passenger-trip. As discussed in earlier chapters, the total annual operating cost of the Dial-A-Ride system is $322,850 per year (Fiscal Year 2011-2012 data), and 11,542 passenger-trips per year are served. This equates to an average cost per passenger-trip of $28.02. Applying this rate to the 9 percent of passenger-trips that are generated by Special Education students, this would indicate a District cost of $29,061 annually. While this option may include increased costs to the School District, it is still far less than the costs associated with procuring a vehicle and operating a bus system internally. This would need to be set forth in an agreement between the Town and District. In exchange for these up-front fare revenues, individual passengers (identified by the District) would not be required to pay a fare on boarding the Dial-A-Ride program (though ridership would be tracked and reported).

Chapter 9
Eastern Nevada County
Transit Development Plan Recommendations

This Transit Development Plan is intended to guide the improvements of public transit services in Eastern Nevada County for Fiscal Years 2013-2014 through 2017-2018. Much of the analysis used as a basis for the plan is presented in previous chapters; the reader is encouraged to refer to previous chapters for additional information and discussion regarding the various plan elements presented below.

The various Service, Capital, Institutional and Management, and Financial elements of the TDP are presented in the sections below, followed by an Implementation Plan to guide transit improvements. Together, these elements will increase access to transit services, improve the reliability and convenience of transit services, fully meet the requirements of the Americans with Disabilities Act, and ensure that Truckee Transit services are financially sustainable. In particular, this plan is designed to serve those residents most dependent upon transit services, while also expanding the ability of Truckee Transit to serve general public residents and visitors. This plan is contingent upon many factors, including future funding availability, the results of ongoing negotiations with potential new transit service operators, changes in development and population, and other factors (notably the cost of gasoline) that could substantially change the demand for public transit services in the future.

SERVICE PLAN

The following are plan elements to improve transit services. Note that in a following section (Institutional / Management Plan), it is recommended that the Town enter into an Intergovernmental Agreement with Gold Country Telecare to provide transit services. As such, the plan elements have been revised to reflect the costs associated with a potential agreement between Gold Country Telecare and the Town of Truckee, as discussed in Chapter 7. The Town's operating costs were updated to reflect a new cost model allocation (based on the updated FY 2013-14 budget and most current vehicle hours and miles of service), which was then applied to each plan element. These are presented in Table 36 for reference.

Provide Consistent Year-Round Fixed Route Service and Streamlined Winter Service with One Bus

A key element of this plan is to provide consistent transit service on the fixed route year-round. This will greatly improve local fixed route transit service in the winter, and will allow residents to depend on a reliable year-round service plan. The service should be provided using one vehicle throughout the day, operating on an hourly headway. It is independent of the winter Donner Summit Route. Winter fixed route service should be provided for 11 hours per day, Monday through Sunday (roughly 7:00 AM to 6:00 PM), which will for the first time include typical commute periods. A draft schedule is shown in Table 37. To minimize weekend operating costs when ridership is typically lower, during the non-winter months Saturday service should be limited to 8 hours of service per day (roughly 8:00 AM to 4:00 PM) with no service on Sunday. Unlike the current fixed route service, there would be no break for lunch; rather, a relief driver

TABLE 36: Truckee Transit Service Alternatives -- Applying GCT Cost Rates

Alternative	Total Annual Vehicle Miles	Total Annual Vehicle Hours	Total Annual Operating Cost	Ridership Impact (One-Way Trips) Daily	Ridership Impact (One-Way Trips) Annual	Annual Farebox Revenue	Annual Subsidy Required
Status Quo							
Operating Costs	107,900	7,398	$489,000	87	28,300	$70,240	$418,760
Fixed Costs	--	--	$137,893	--	--	--	--
Subtotal	107,900	7,398	$626,893	87	28,300	$70,240	$556,653
Fixed Route Alternatives							
Operate More Consistent Transit Service Year Round + Streamlined Winter Service - 1 Bus Option	28,720	1,660	$114,400	11	3,600	$19,500	$94,900
Operate More Consistent Transit Service Year Round + Streamlined Winter Service - 2 Bus Option	31,710	2,060	$138,000	18	4,300	$19,500	$118,500
Operate More Consistent Transit Service Year Round + Streamlined Winter Service - 2 Bus Option, with No Off-Season Sunday Service and 8 Hours on Saturday	21,993	1,535	$120,100	12	3,400	$17,400	$78,900
Operate More Consistent Transit Service Year Round + Streamlined Winter Service - 1 Bus Option, with No Off-Season Sunday Service and 8 Hours on Saturday	19,003	1,135	$72,700	10	2,700	$17,400	$55,300
Streamlined Winter Service Only	4,190	-9	$4,000	7	680	$0	$4,000
Dial-A-Ride Alternatives							
Provide 3 Daily Service Trips from Senior Center - Reduced $1.00 Fare	0	0	$0	1	360	-$1,070	$1,070
Provide 3 Daily Service Trips from Senior Center - Maintain $2.00 Fare	0	0	$0	0	0	$0	$0
Reduce DAR Service Hours - Existing Level of Service	0	-468	-$23,600	0	0	$0	-$23,600
Reduce DAR Service Hours - DAR Only in Areas Not Served by Fixed Route	-5,190	-780	-$44,900	-6	-1730	-$1,680	-$43,220
Reduce DAR Service Hours - DAR Only for Disabled and Senior Passengers	-2,580	-936	-$50,000	-3	-860	-$3,390	-$46,610

Source: LSC Transportation Consultants, Inc., 2013

would be called in. The route should service all existing stops on the fixed route, with some modifications – the Crossroads Center should be served in both directions; West End Beach would be served every other run; and the Pioneer Commerce Center and Alder Creek Middle School would be "On Request" stops. Hampton Inn would also remain On Request.

The Winter Shuttle should be renamed the Donner Summit Route, in order to convey that the service is open to all (not just skiers) and to avoid any issues in future grant applications that the service is only benefitting private resorts. The route should provide service to the Summit using only one vehicle per day, compared to two in peak periods in past seasons. Service should be operated between the Truckee Train Depot and Boreal Ski Resort seven days per week throughout the ski season. In general, the buses should operate on 2 hour headways, with the exception of the afternoon where there is a longer 3 hour break before the final run. In the morning, the bus should make limited stops in the Town of Truckee as far as the west end of Donner Lake, then head up Donner Lake Road and I-80 to Boreal, Soda Springs and Sugar Bowl (counterclockwise around the I-80 / Donner Pass Road loop). In the afternoon, this loop would be served in the clockwise direction (Sugar Bowl, then Soda Springs, and Boreal). This serves trips between Truckee and all the resorts, as well as connecting the residential areas in Soda Springs with Sugar Bowl / Donner Ski Ranch. Connections to both TART and the Truckee fixed route are available at the Train Depot. The Truckee fixed route fare should be charged on

TABLE 37: Fixed Route Year-Round Truckee Local Service Schedule

Shaded service not operated on Saturdays in Spring, Summer and Fall

No service operated on Sundays in Spring, Summer and Fall

Stop	Time											
Eastbound												
West End Beach	--	7:42	--	9:42	--	11:42	--	1:42	--	3:42	--	5:42
Sticks Market	--	7:45	--	9:45	--	11:45	--	1:45	--	3:45	--	5:45
Donner State Park	--	7:47	8:47	9:47	10:47	11:47	12:47	1:47	2:47	3:47	4:47	5:47
Chevron / Unocal	--	7:48	8:48	9:48	10:48	11:48	12:48	1:48	2:48	3:48	4:48	5:48
Tri-Counties Bank Plaza	--	7:49	8:49	9:49	10:49	11:49	12:49	1:49	2:49	3:49	4:49	5:49
Northwoods	--	7:50	8:50	9:50	10:50	11:50	12:50	1:50	2:50	3:50	4:50	5:50
Wild Cherries @ Donner Plass Road	--	7:51	8:51	9:51	10:51	11:51	12:51	1:51	2:51	3:51	4:51	5:51
Crossroads Center (SaveMart / CVS)	--	7:55	8:55	9:55	10:55	11:55	12:55	1:55	2:55	3:55	4:55	5:55
Bank of America	--	7:57	8:57	9:57	10:57	11:57	12:57	1:57	2:57	3:57	4:57	5:57
Hospital	--	7:58	8:58	9:58	10:58	11:58	12:58	1:58	2:58	3:58	4:58	5:58
Train Depot	--	8:01	9:01	10:01	11:01	12:01	1:01	2:01	3:01	4:01	5:01	6:01
Pioneer Commerce Center (On Request)	--	8:02	9:02	10:02	11:02	12:02	1:02	2:02	3:02	4:02	5:02	6:02
Rec Center	--	8:04	9:04	10:04	11:04	12:04	1:04	2:04	3:04	4:04	5:04	6:04
Henness Flats	--	8:05	9:05	10:05	11:05	12:05	1:05	2:05	3:05	4:05	5:05	6:05
Westbound												
Henness Flats	7:05	8:05	9:05	10:05	11:05	12:05	1:05	2:05	3:05	4:05	5:05	--
Airport	7:09	8:09	9:09	10:09	11:09	12:09	1:09	2:09	3:09	4:09	5:09	--
Hampton Inn (On Request)	7:10	8:10	9:10	10:10	11:10	12:10	1:10	2:10	3:10	4:10	5:10	--
Larkspur Inn / The Rock	7:13	8:13	9:13	10:13	11:13	12:13	1:13	2:13	3:13	4:13	5:13	--
Village Green / Reynolds Way	7:14	8:14	9:14	10:14	11:14	12:14	1:14	2:14	3:14	4:14	5:14	--
Estates Drive / Senior Apartments	7:16	8:16	9:16	10:16	11:16	12:16	1:16	2:16	3:16	4:16	5:16	--
7-11 / Regional Park	7:17	8:17	9:17	10:17	11:17	12:17	1:17	2:17	3:17	4:17	5:17	--
Train Depot (Connect to TART)	7:19	8:19	9:19	10:19	11:19	12:19	1:19	2:19	3:19	4:19	5:19	--
Hospital	7:22	8:22	9:22	10:22	11:22	12:22	1:22	2:22	3:22	4:22	5:22	--
Panda Express / Safeway	7:23	8:23	9:23	10:23	11:23	12:23	1:23	2:23	3:23	4:23	5:23	--
Crossroads Center (SaveMart / CVS)	7:27	8:27	9:27	10:27	11:27	12:27	1:27	2:27	3:27	4:27	5:27	--
Mountain Hardware	7:30	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30	--
7-11 @ Donner Pass Road	7:31	8:31	9:31	10:31	11:31	12:31	1:31	2:31	3:31	4:31	5:31	--
Northwoods	7:32	8:32	9:32	10:32	11:32	12:32	1:32	2:32	3:32	4:32	5:32	--
Smokey's Kitchen	7:33	8:33	9:33	10:33	11:33	12:33	1:33	2:33	3:33	4:33	5:33	--
Chevron / Unocal	7:34	8:34	9:34	10:34	11:34	12:34	1:34	2:34	3:34	4:34	5:34	--
Donner State Park	7:36	8:36	9:36	10:36	11:36	12:36	1:36	2:36	3:36	4:36	5:36	--
Sticks Market	7:38	--	9:38	--	11:38	--	1:38	--	3:38	--	5:38	--
West End Beach	7:42	--	9:42	--	11:42	--	1:42	--	3:42	--	5:42	--

this service, with employees of resorts that financially participate in the program allowed to board free of charge by displaying an employee identification card. By charging identical fares on both fixed routes, passenger confusion is reduced and the issues associated with passengers using one route over the other are avoided.

As shown in Table 36, this service element would cost roughly $72,700 more in annual operating costs. However, increased farebox revenues totaling roughly on the order of $17,400, would be received, the actual operating subsidy required would only increase by $55,300.

Reduce Dial-A-Ride Hours while Maintaining Existing Level of Service

The analysis of the Dial-A-Ride program showed that the Dial-A-Ride vehicles are operating more hours than necessary to serve the current level of ridership. As such, to save in operating costs, the demand response service should be reduced to 12.5 vehicle-hours per day (versus the 14 vehicle-hours per day that are currently operated). The first vehicle would operate roughly from 8:00 AM to 12:45 PM and again from 2:00 PM to 5:00 PM; the second vehicle

would operate from 9:15 AM to 11:45 AM and again from 12:45 PM to 3:00 PM. There would be no negative ridership impacts with this alternative, as the reduced service can serve all existing riders.

Implementing this plan element would save the Town of Truckee roughly $23,600 per year. As mentioned, no other impacts are anticipated to ridership or farebox.

Schedule Dial-A-Ride Service for the Senior Apartments to Focus on Three Specific Service Times

At present, substantial Dial-A-Ride time is expended serving immediate on-call trip requests between the Senior Apartments and the Donner Pass Road corridor (including downtown, the Hospital area, and the Crossroads Center and Gateway Center). To improve efficiency and encourage non-disabled passengers to make better use of the expanded fixed route, the dispatcher should be instructed to strive to schedule ride requests around three specific service times: 9:00 AM (one-way to locations along Donner Pass Road), 11:00 AM (both to and from the Senior Apartments for locations along the corridor) and 3:00 PM (one-way from locations along Donner Pass Road to the Senior Apartments). In particular, trip requests from non-ADA certified passengers should be scheduled at these times, except those trips with specific requirements (such as medical appointments) that cannot be reasonably accommodated with service at these times. In addition, the driver should be instructed to return to the operating base or downtown train station when not serving a request, rather than driving to the Senior Apartments to see if any passengers desire a trip. Because no actual changes to the hours are made with this plan element, there are no cost impacts to the Town of Truckee.

CAPITAL PLAN

Purchase Replacement Vehicles

All five vehicles in the Town of Truckee's fleet should be replaced within the five-year plan period. The Town is currently planning to replace two vehicles in FY 2013-14 with secured funding, both of which are for Dial-A-Ride services. The estimated cost for the two vehicles is $160,000. The remaining vehicles should be replaced in FY 2016-17 (one vehicle) and FY 2017-18 (two vehicles).

Purchase Additional Vehicles

In addition to the replacement vehicles, there is a need to purchase additional vehicles due to improved service levels. Currently, the fixed route service requires the use of two vehicles in the winter season in the morning and evening, however there is only one vehicle technically available; the extra vehicle used is a back-up vehicle from the fleet. The service plan, as noted above, would require two vehicles – one for the Donner Summit Route and one for the year-round fixed route – plus a back-up. The Town is planning to address this by potentially purchasing two vehicles in FY 2013-14 with grant funding that has been secured by Caltrans. One of the vehicles to be purchased is a 32-passenger vehicle, while the other is a 16-passenger vehicle. This would allow for sufficient in-service and back-up vehicles. Beyond this, no other new vehicles are needed during the five-year plan period. The estimated cost is

$104,500 for the 16-passenger vehicle and $137,500 for the 32-passenger vehicle, totaling $242,000.

Automatic Vehicle Location Technology

To maintain consistency with transit operations provided by TART, the Town of Truckee should install NextBus technology at the Truckee Train Depot. These electronic message signs can be used by both TART and Truckee Transit to alert passengers of departure times, delays and other transit-related messages. In order for Truckee Transit to use the technology fully, AVL would need to be installed on their vehicles. While not included in this plan, it would be something to move forward with should the Town and Placer County Transit eventually work out an IGA for transit services. The Town is planning to purchase this equipment in FY 2013-14, at an estimated cost of $19,000 through a grant opportunity.

INSTITUTIONAL / MANAGEMENT ELEMENTS

Enter into an Intergovernmental Agreement with Gold Country Telecare to Provide Transit Services

Based on a side by side analysis of future operating costs, as well as pros and cons of each service provider, it is recommended that the Town of Truckee move forward with discussions to establish an Intergovernmental Agreement (IGA) with Gold Country Telecare. Working with a seasoned demand response company would allow Truckee Transit to have full dispatch services, as well as trained staff in scheduling with adequate computer programming. Thus, the need to add costs for a dispatcher and any equipment (that would be required under the existing operator) are avoided.

In the near term, the agreement should be defined so that GCT provides demand response services as well as the fixed route. However, as discussed below, it is also recommended that the Town work with Placer County DPW to operate the fixed route services in the future. As such, the fixed route operations provided by GCT would be temporary; demand response operation by GCT would be ongoing. The service plan would include operations conducted by GCT beginning January 1, 2014 for both services. It is likely that Placer County Transit would take over the fixed route no earlier than Fiscal Year 2015-16, at which time GCT would only be responsible for demand response.

Enter into an Intergovernmental Agreement with Placer County to Provide Fixed Route Transit Services

Another beneficial partnership for the Town of Truckee is with Placer County. Entering into an IGA with PCT would provide many positive impacts to the transit system. Benefits to this agreement are substantial – existing dispatch staff; trained and experienced drivers; no additional insurance or maintenance costs by using existing Truckee Transit fleet; and increased coordination between two services that are already linked. Additionally, partnering with PCT would also be a step towards working towards more regional transit goals for the Tahoe-Truckee region as a whole. Lastly, funding opportunities may be greater with a more region-wide operation, which would benefit both the Town of Truckee and Placer County.

As mentioned above, reaching a formal agreement with PCT is not likely to take effect immediately, and is assumed to take place during Fiscal Year 2015-16. This provides the time needed for Placer County to expand staff and other capabilities to provide the service. This arrangement would be similar to that currently in place between Placer County and the City of Rocklin for the County's provision of transit service in that city.

Contribute the Remainder of the Fair Share of Transit Services in Truckee with Placer County

The Town of Truckee and Placer County currently have an agreement regarding the funding of the TART Highway 89 and Highway 267 transit routes. The overall original agreement includes a fair share cost for Truckee's portion of the services, while the actual yearly "contract" provides a lower figure that Truckee is to pay Placer County. As another means of working towards strengthening partnerships and regional transit services, it is recommended that the Town of Truckee begin paying the full fair share cost of the contract. The financial plan found later in this chapter shows the funding to begin in Fiscal Year 2015-16, so as to provide consistency with potential future agreements. In other words, contributing the fair share could be integrated into a larger agreement (i.e. PCT operating the fixed route), or into a revised agreement, with Placer County DPW. Based on the service plan presented, contributing the remainder of the fair share amount is contingent upon receiving JARC funding; under current financial conditions, it is not feasible for Truckee Transit to pay the full amount, hence the revised contract with PCT.

Improve Dial-A-Ride Performance and Management Strategies

The Town of Truckee should ensure that performance measures are adequately tracked. These measures should include passengers per hour, passengers per mile, late cancellations, no-shows and trip denials. Additionally the Town should have specific levels or goals for each of these related to Dial-A-Ride services, so that they are able to determine whether the service is meeting expectations. Further, a more formal reservation request policy should be implemented, by which passengers are warned that reservations not made at least 24-hours in advance may not be accommodated. Other components of the element should include providing incentives to reward passengers without missed trips or late cancellations, as well as a passenger education program.

Develop Goals, Performance Standards and Reporting Standards for the Fixed Route

The Town of Truckee should develop goals, performance standards and reporting standards for the fixed route program to ensure it is performing optimally. These would include service efficiency, service effectiveness, service quality, accessibility and planning / management goals. Recommended policies are presented in this document.

Improve Fare Handling Procedures

Currently, only the contractor transit supervisor is present when farebox revenue is counted. It is considered good practice for two staff people to be present while the fare revenue is being counted. This reduces the temptation for foul play or mishandling of cash. In Truckee, by the time the transit routes have finished, there are no other staff members available, and requiring

an additional driver to stay longer would increase costs for the Town. A feasible solution would be to have the Transit Supervisor drop off the fareboxes at the end of the day to the police station at Town Hall, and for existing Town Staff from the Parking and Transportation Services Department to collect, count and reconcile the fares.

Marketing Strategies

Strategies to improve service quality include conducting annual or biannual boarding and alighting counts, performing annual passenger surveys and tracking on-time performance. To market for new services or service changes, the Town should take advantage of local media for announcements, as well as conduct community marketing through schools, businesses, employers and social service agencies. Presentations should also be made to specific community groups who may be able to better disseminate information to a larger population more effectively. Improvements to bus stops, such as posting schedule information, would also improve the system's efforts. Lastly, actual marketing materials could be improved on, including the system map and schedule, internet website and by providing transit information in Spanish.

FINANCIAL PLAN

Apply for Additional Federal Grant Programs

While the Town currently applies for FTA 5311 funding, there are other options available to them for transit operations. Programs such as JARC (job access reverse commute / regional transit services) and FTA 5310 (for projects related to mobility for seniors and disabled persons, which now includes FTA 5317 New Freedom funds) could be applied to Truckee's transit services. Another grant program, FTA 5311(f) (for intercity bus programs that connect urbanized and non-urbanized areas) may be an option for the winter shuttle service; the Town of Truckee should also look into that as an additional funding source. For example, it is recommended (and discussed in more detail below) that the Town apply for JARC funding to help meet their current TART contract agreement for the Highway 89 and Highway 267 routes. As discussed in the Service Plan section, it is recommended that Placer County and the Town of Truckee enter into an IGA to have TART operate the transit services in Truckee. It is likely that such an arrangement would not be put into service until FY 2015-16, and as such, the financial plan that follows shows JARC funding to be applied in that year. Additional JARC funds should be applied for to assist with the Town's portion of operating costs for the winter shuttle service. In order to apply for the latter grant, the Town should rename the shuttle to Donner Summit Route, rather than refer to it as a Winter Shuttle. As the service is used as a commuter route for employees, it could qualify for funding. It would be up to the Town whether to pursue these grants individually or as a joint application with Placer County. The latter would show a more regional effort and may lead to more success securing funding. FTA 5310 funds could be used in the future for new vehicle purchase that will be needed later in the plan period.

Utilize CTS Funding

The Town of Truckee has access to the County's CTS funding, which can be used for improvements to the local transit system. It is recommended that the Town apply for their share of funding each year, as well as any additional funding that may remain unclaimed (as was the case in FY 2013-14), which can be put towards the improvements to the fixed route system.

Develop an Agreement with Truckee Unified School District for Special Education Student Transportation Funding

Additional funding for the Town of Truckee is critical to the success and sustainability of the program. Currently, approximately 9 percent of the Dial-A-Ride ridership is generated from the Special Education students in the School District. As no formal school transportation is available to students, the School District relies on the demand response system for class outings and work opportunities on a regular basis throughout the school year; thus, Truckee Transit is providing a direct benefit to the District since they are serving a function that the District is not covering. To better assist in the operations of the Dial-A-Ride program, the Town of Truckee should enter into discussions to develop an agreement with the School District to obtain additional funding. As presented in Chapter 7, one strategy would be for the School District to pay the fully-allocated cost of the students, or the Dial-A-Ride cost per passenger-trip, which equates to roughly $28.02. Given the existing ridership, this would generate roughly $29,061 annually for the Town, and would ensure that adequate services are available to the School District's Special Education program. With this funding, fares would no longer need to be charged for individual District-related passenger trips.

Local Funding Sources

Developments in Truckee have the potential to generate new transit demand, and as a result, funding should be provided by the developers. This is currently in practice in the Town, with Gray's Crossing being one example of how the Town has generated additional transit revenues through developments. Moving forward, the Town should work with developers to ensure that they pay their "fair share" of the transit services when they are expected to increase the transit need / demand. For example, a new senior housing complex or single-family housing development where fixed route is not offered is likely to generate higher ridership on the demand response program, and thus funding should be part of the development agreement to help assist in the potential for increased service. Another important piece is maintaining existing partnerships, such as those for the winter shuttle service.

Subsidy Funding Sources

The following methodology was utilized in developing this Financial Plan:

- First, forecasts of annual operating and administrative costs were developed, as presented in Table 38 for FY 2013/14 through FY 2017/18. "Base case" operating and administrative cost forecasts were estimated using Gold Country Telecare's potential costs, and assuming a 3 percent annual inflation rate of current costs in the absence of any change in service levels. Next, operating and administrative cost estimates were identified for each Plan 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 would grow to approximately $1,012,000 per year by the end of the five-year period.

- Next, ridership for each plan element was estimated, as presented in Table 39. The "base case" ridership reflects expected ridership assuming no changes in service and that ridership will grow consistent with the recent population growth rate of 1.3 percent (determined from the annual growth between 2000 and 2010 Census data). The ridership impact of each Plan element (including the fare modifications) is then identified and summed. As new services

TABLE 38: Eastern Nevada County TDP - Estimated Operating Costs

All Figures in Thousands

Plan Element	Projected FY13-14	Projected FY14-15	Projected FY15-16	Projected FY16-17	Projected FY17-18	5-Year Plan Total
Base Case Total Costs (1)	*$727.0*	*$711.8*	*$771.2*	*$794.3*	*$818.1*	$3,822.4
TART Subsidy -- Existing Costs Paid per Agreement	$100.0	$106.1	$109.3	$112.6	$116.0	$544.1
Transit Operating Costs	$626.9	$605.7	$661.85	$681.71	$702.16	$3,278.3
Service Plan Elements						
Operate More Consistent Transit Service Year Round + Streamlined Winter Service - 1 Bus Option, with No Off-Season Sunday Service and 8 Hours on Saturday	$37.4	$77.1	$79.4	$81.8	$84.3	$360.1
Reduce DAR Service Hours - Existing Level of Service	-$12.2	-$25.0	-$25.8	-$26.6	-$27.4	-$116.9
TART Subsidy -- Additional Costs to Fund Total Fare Share of Agreement	$0.0	$0.0	$129.0	$132.8	$136.8	$398.6
Subtotal Plan Elements	*$25.3*	*$52.1*	*$182.6*	*$188.1*	*$193.7*	*$641.8*
Net Operating Cost (2)	***$752.2***	***$763.9***	***$953.8***	***$982.4***	***$1,011.9***	***$4,464.2***

Note 1: This analysis assumes an annual inflation rate of 3 percent.
Source: LSC Transportation Consultants, Inc.

do not immediately attain the full potential ridership, ridership on new services is factored to reflect 66 percent of potential ridership in the first year of service and 90 percent of potential ridership in the second year. In addition, ridership (for both base case and for the service improvements) is factored to reflect an annual increase in population and associated ridership demand. By FY 2017-18, ridership is conservatively forecast to equal 34,700 one-way passenger-trips per year. Additional ridership on the local fixed-route service may well exceed the figures shown in Table 39, as passenger's come to rely on a dependable year-round service.

- Based on the ridership figures presented in Table 39, the estimated farebox revenues are presented in Table 40. Again, these figures reflect the impacts of the fare modifications. As presented, the base case farebox revenues for FY 2017-18 are estimated at $29,000.

- Implementation of the plan elements will increase those farebox revenues by $20,000, equal to a 69 percent increase. Over the entire five-year Plan period, farebox revenues will total $223,700, roughly $87,000 over the base case $953,300.

- The next element necessary in the development of the plan is estimation of the capital cost for vehicles, passenger amenities, passenger facility improvements and operating equipment, as shown in Table 41 for each year of the plan period. It should be noted that an annual inflation rate of 3.0 percent is reflected in these figures. Capital items consist of the following:

  – Vehicle purchases, as detailed above
  – NextBus Technology at the Train Depot
  – Miscellaneous bus equipment (fareboxes, etc.)

Capital costs over the five-year period will total approximately $792,500.

The results of Tables 38 through 41 were used to develop the Financial Plan, as presented for each of the five years of the plan period in Table 42. In addition to passenger fares (from Table 39), this Financial Plan incorporates the following operating funding sources:

- Local Transportation Funds (LTF) are the key local source of transit operating funds, currently generating roughly two-thirds of the funds used to operate services. Excluding carryover funds as well as LTF funds allocated to other purposes, LTF annual income available to Truckee Transit has increased. This plan conservatively assumes that annual LTF revenues will continue this trend through the Plan period, and subsequently increase by the assumed rate of inflation (3 percent).

- Federal Transit Administration (FTA) Section 5311 funds for each plan year are based on Caltrans estimates and are assumed to increase by 3 percent per year in subsequent years. Fiscal Year 2013-14 includes additional FTA 5311 funding that has been identified by Caltrans, and is a one-time occurrence.

- JARC funding is assumed to be applied for, as discussed earlier. The funding is shown as two line items – one for the TART subsidy and another for the Donner Summit Route.

TABLE 39: Eastern Nevada County TDP - Estimated Ridership

All Figures in Thousands

Plan Element	Projected FY13-14	Projected FY14-15	Projected FY15-16	Projected FY16-17	Projected FY17-18	5-Year Plan Total
Base Case Ridership (1)	28.0	28.9	29.8	30.7	31.6	149.0
Service Plan Elements						
Operate More Consistent Transit Service Year Round + Streamlined Winter Service - 1 Bus Option, with No Off-Season Sunday Service and 8 Hours on Saturday	1.8	2.6	3.0	3.0	3.1	13.5
Reduce DAR Service Hours - Existing Level of Service	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Plan Elements	*1.8*	*2.6*	*3.0*	*3.0*	*3.1*	*13.5*
Net Ridership	29.8	31.5	32.8	33.7	34.7	162.5

Note 1: This analysis assumes that ridership will increase at the same rate as anticipated population growth (0.88 percent).

Source: LSC Transportation Consultants, Inc.

TABLE 40: Eastern Nevada County TDP - Estimated Farebox Revenues

All Figures in Thousands

Plan Element	Projected FY13-14	Projected FY14-15	Projected FY15-16	Projected FY16-17	Projected FY17-18	5-Year Plan Total
Base Case	$25.8	$26.5	$27.3	$28.1	$29.0	$136.7
Service Plan Elements						
Operate More Consistent Transit Service Year Round + Streamlined Winter Service - 1 Bus Option, with No Off-Season Sunday Service and 8 Hours on Saturday	$11.6	$16.8	$19.3	$19.3	$20.0	$87.0
Reduce DAR Service Hours - Existing Level of Service	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Subtotal Plan Elements	*$11.6*	*$16.8*	*$19.3*	*$19.3*	*$20.0*	*$87.0*
Net Farebox Revenues	$37.4	$43.3	$46.7	$47.5	$49.0	$223.7

Source: LSC Transportation Consultants, Inc.

TABLE 41: Eastern Nevada County TDP - Capital Plan

All Figures in Thousands

Plan Element	Projected FY13-14	Projected FY14-15	Projected FY15-16	Projected FY16-17	Projected FY17-18	5-Year Plan Total
Replacement Buses						
Number of Buses	2	0	0	1	2	5
Total Cost	$242.0	$0.0	$0.0	$112.6	$231.9	$586.5
Additional Vehicles						
Number of Buses	2	0	0	0	0	
Total Cost	$160.0	$0.0	$0.0	$0.0	$0.0	$160.0
Bus Equipment	$27.0					
NextBus Technology	$19.0	$0.00	$0.0	$0.0	$0.0	$19.0
Total Capital Plan Elements	*$448.0*	*$0.0*	*$0.0*	*$112.6*	*$231.9*	*$792.5*

Note 1: All costs include 3 percent annual inflation.

Source: LSC Transportation Consultants, Inc.

TABLE 42: Eastern Nevada County SRTP Update Financial Plan

GOLD COUNTRY TELECARE OPERATING OPTION *All Figures in Thousands*

	Projected FY13-14	Projected FY14-15	Projected FY15-16	Projected FY16-17	Projected FY17-18	5-Year Plan Total
OPERATING PLAN						
Base Case Costs	$727.0	$711.8	$771.2	$794.3	$818.1	$3,822.4
Operating Plan Elements (From Table 21)	$25.3	$52.1	$182.6	$188.1	$193.7	$641.8
Total Operating Costs	***$752.2***	***$763.9***	***$953.8***	***$982.4***	***$1,011.9***	***$4,464.2***
Operating Revenues						
Passenger Fares (From Table 23)	$37.4	$43.3	$46.7	$47.5	$49.0	$223.7
Annual LTF Operating Revenues	$401.3	$480.8	$425.7	$438.5	$451.7	$2,198.0
FTA 5311	$140.9	$78.4	$80.8	$83.2	$85.7	$469.1
JARC Funding (Proposed) -- TART Subsidy	$0.0	$0.0	$129.0	$132.8	$136.8	$398.6
JARC Funding (Proposed) -- Donner Summit Shuttle	$0.0	$20.2	$20.8	$21.4	$22.1	$84.5
State Transit Assistance	$119.7	$83.9	$85.0	$86.1	$87.2	$461.8
CTS Funds	$55.0	$21.4	$21.7	$22.0	$22.2	$142.3
Donner Summit Ski Area Contributions	$49.3	$51.0	$52.5	$54.1	$55.7	$262.5
Grey's Crossing Contributions	$65.5	$62.5	$59.4	$56.2	$52.8	$296.4
School District Contributions	$29.1	$29.9	$30.8	$31.8	$32.7	$154.3
Total Operating Revenues	***$898.2***	***$871.4***	***$952.3***	***$973.4***	***$995.9***	***$4,691.1***
Annual Balance	$145.9	$107.5	($1.5)	($9.0)	($16.0)	*$226.9*
CAPITAL PLAN						
Capital Costs (From Table 24)	$448.0	$0.0	$0.0	$112.6	$231.9	$792.5
Capital Revenues						
FTA 5310	$0.0	$0.0	$0.0	$112.6	$231.9	$344.5
Proposition 1B - PTMISEA	$448.0	$0.0	$0.0	$0.0	$0.0	$448.0
Total Capital Revenues	***$448.0***	***$0.0***	***$0.0***	***$112.6***	***$231.9***	***$792.5***
Annual Balance	$0.0	$0.0	$0.0	$0.0	$0.0	

LTF - Local Transportation Funds
STA - State Transit Assistance. Used for capital and cash flow.
FTA - Federal Transit Administistration
PTMISEA - Public Transportation Modernization, Improvement and Service Enhancement Account

Source: LSC Transportation Consultants, Inc.

- State Transit Assistance (STA) has continued to increase for the Town of Truckee, and is assumed to continue this trend moving forward, increasing by the rate of inflation. Additional funding is being allocated for Fiscal Year 2013-14, as there were unused funds available. This is only a one-time occurrence.

- CTS funds are shown to be allocated to the Town of Truckee each year. Note that the Town was able to claim unallocated funds leftover in the County, which is shown in Fiscal Year 2013-14. It is likely that this will occur in other plan years, however amounts are unknown. As such, the base case amount based on population is shown.

- Contributions from ski area partners for the Donner Summit Route are shown at a decreased rate than previously received, as with the new plan, the operating costs have declined. The total percentage contributed by the partners as a whole was applied to the new estimated operating costs, as that is not expected to change.

- Contributions from the Grey's Crossing development are included, and are shown to decrease each year based on the amended contract.

- Lastly, as discussed in the previous chapter, contributions from the School District are assumed. The cost is based on the actual cost per passenger-trip for the Special Education students.

In total, operating revenues are forecast to exceed operating costs for the first two years of the plan, primarily due to excess funding to be received in the first year and that all elements will not be fully implemented until the third plan year. The surplus operating funds are assumed in Table 25 to be transferred to be used in later years for operating, if needed. The deficits shown in years three through five are relatively minor, and could be covered by additional funding received through CTS funds or future development projects, which were not considered for this portion of the plan.

Capital funding is planned as follows:

- Proposition 1B PTMISEA (Public Transportation Modernization, Improvement and Service Enhancement Account) funds are allocated projects in Fiscal Year 2013-14 as currently planned by the Town of Truckee. Moving forward, no other PTMISEA funding is assumed.
- FTA 5310 funding is included to cover the costs of future bus purchases in Fiscal Year 2016-17 and FY 2017-18.

As presented in the bottom portion of Table 42, this analysis indicates that the capital plan elements can be fully funded.

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Appendix A

Dial-A-Ride Vehicle Service Hours Data

		8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips	
4/1/2013 *Monday*																																							
DAR Vehicle #1	Disabled										1											1	1				1			1									5	
	Not Disabled - Trip Along Fixed Route																																						0	
	Not Disabled - Trip Not Along FR						1																																1	
	Alta / Choices																																						0	
DAR Vehicle #2	Disabled										1	1						1																					3	
	Not Disabled - Trip Along Fixed Route																														1			1					2	
	Not Disabled - Trip Not Along FR																										3								1				4	
	Alta / Choices																																						0	
Total Rides – Existing DAR		0	0	0	0	0	1	0	0	0	2	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	3	0	1	0	1	0	0	1	1	0	0	15	Psgr-Trips
Total Rides – If Non-Disabled Psgrs Along FR Shift to FR		0	0	0	0	0	1	0	0	0	2	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	3	0	1	0	0	0	0	0	1	0	0	13	Psgr-Trips
Total Rides – If Only Disabled Served by DAR		0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	8	Psgr-Trips
Existing # DAR Buses in Operation		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1		14.25	Vehicle-Hours of Service
DAR Buses Needed – Existing Ridership		1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		11	
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	1	1	1	1	1	1	1	1	1		7	
	DAR 2							1	1	1	1	1	1	1	1				1	1	1	1	1	1	1	1													4	
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR		1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		11	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	1	1	1	1	1	1	1	1		7	
	DAR 2							1	1	1	1	1	1	1	1				1	1	1	1	1	1	1	1													4	
DAR Buses Needed if Only Disabled Served by DAR		1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		11	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	1	1	1	1	1	1	1	1		7	
	DAR 2							1	1	1	1	1	1	1	1				1	1	1	1	1	1	1	1													4	

		8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips		
4/2/2013 *Tuesday*																																								
DAR Vehicle #1	Disabled														1							1		1		1			1	1								6		
	Not Disabled - Trip Along Fixed Route																									1					1								2		5.75
	Not Disabled - Trip Not Along FR											1																						1					2		
	Alta / Choices			1				2									2																						5		
DAR Vehicle #2	Disabled											1	1			1			1																				4		
	Not Disabled - Trip Along Fixed Route																																						0		
	Not Disabled - Trip Not Along FR							1									1									1													3		
	Alta / Choices								1																		1												2		
Total Rides – Existing DAR		0	0	1	0	0	0	3	1	0	0	2	1	0	1	1	3	0	1	0	0	0	1	0	1	1	3	0	0	1	1	1	0	1	0	0	0	0	24	Psgr-Trips	
Total Rides – If Non-Disabled Psgrs Along FR Shift to FR		0	0	1	0	0	0	3	1	0	0	2	1	0	1	1	3	0	1	0	0	0	1	0	1	1	2	0	0	1	1	0	0	1	0	0	0	0	22	Psgr-Trips	
Total Rides – If Only Disabled Served by DAR		0	0	1	0	0	0	2	1	0	0	1	1	0	1	1	2	0	1	0	0	0	1	0	1	0	2	0	0	1	1	0	0	0	0	0	0	0	17	Psgr-Trips	
Existing # DAR Buses in Operation		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1		14.25	Vehicle-Hours of Service	
DAR Buses Needed – Existing Ridership		1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1		11.75		
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		7.75		
	DAR 2						1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1											4		
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR		1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1		11.75	Vehicle-Hours of Service	
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						1	1	1	1	1	1	1	1	1	1	1		7.75		
	DAR 2						1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1											4		
DAR Buses Needed if Only Disabled Served by DAR		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		9	Vehicle-Hours of Service	
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									1	1	1	1	1	1	1	1	1	1	1		7		
	DAR 2																	1	1	1	1	1	1	1	1													2		

		8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips	
4/3/2013 Wednesday																																							
DAR Vehicle #1	Disabled					2		1				1		1	1							1		1					1	2									11	
	Not Disabled - Trip Along Fixed Route					2						3										1						1											7	
	Not Disabled - Trip Not Along FR																						1																1	
	Alta / Choices			3													1									2												6	
DAR Vehicle #2	Disabled							1					1	1				1	1										1									6	
	Not Disabled - Trip Along Fixed Route																																						0
	Not Disabled - Trip Not Along FR						1		1	1						1												1											5
	Alta / Choices																																						0
Total Rides -- Existing DAR		0	0	3	0	4	1	2	1	1	0	4	1	2	1	1	1	1	1	0	0	2	1	1	0	0	2	2	1	3	0	0	0	0	0	0	0	0	36	Psgr-Trips
Total Rides -- If Non-Disabled Psgrs Along FR Shift to FR		0	0	3	0	2	1	2	1	1	0	1	1	2	1	1	1	1	1	0	0	1	1	1	0	0	2	1	1	3	0	0	0	0	0	0	0	0	29	Psgr-Trips
Total Rides -- If Only Disabled Served by DAR		0	0	3	0	2	0	2	0	0	0	1	1	2	1	0	1	1	1	0	0	1	0	1	0	0	2	0	1	3	0	0	0	0	0	0	0	0	23	Psgr-Trips
Existing # DAR Buses in Operation		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1			14.25	Vehicle-Hours of Service
DAR Buses Needed -- Existing Ridership		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1		13	
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						1	1	1	1	1	1	1	1	1	1	1		7.75	
	DAR 2					1	1	1	1	1	1	1	1	1	1	1	1					1	1	1	1	1	1	1	1	1									5.25	
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR		1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1		11.75	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								1	1	1	1	1	1	1	1	1		7.25	
	DAR 2							1	1	1	1	1	1	1	1	1						1	1	1	1	1	1	1	1	1									4.5	
DAR Buses Needed if Only Disabled Served by DAR		1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1		11.5	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								1	1	1	1	1	1	1	1	1		7.25	
	DAR 2							1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1									4.25	

		8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips	
4/4/2013 Thursday																																							
DAR Vehicle #1	Disabled			1		1				1	1	1										2	1				1		1									10	
	Not Disabled - Trip Along Fixed Route																																						0
	Not Disabled - Trip Not Along FR															1																							1	
	Alta / Choices			1				2										2																					5	
DAR Vehicle #2	Disabled								1						1					1										1		1		1					6	
	Not Disabled - Trip Along Fixed Route																								1														1	
	Not Disabled - Trip Not Along FR							1							1																	2							4	
	Alta / Choices									1																1													2	
Total Rides -- Existing DAR		0	0	2	0	1	0	3	1	2	1	1	0	0	2	1	0	2	0	1	0	2	1	0	0	1	2	0	1	1	0	3	0	1	0	0	0		29	Psgr-Trips
Total Rides -- If Non-Disabled Psgrs Along FR Shift to FR		0	0	2	0	1	0	3	1	2	1	1	0	0	2	1	0	2	0	1	0	2	1	0	0	0	2	0	1	1	0	3	0	1	0	0	0		28	Psgr-Trips
Total Rides -- If Only Disabled Served by DAR		0	0	2	0	1	0	2	1	2	1	1	0	0	1	0	0	2	0	1	0	2	1	0	0	0	2	0	1	1	0	1	0	1	0	0	0		23	Psgr-Trips
Existing # DAR Buses in Operation		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1			14.25	Vehicle-Hours of Service
DAR Buses Needed -- Existing Ridership		1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1			11.5	
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1		7.5	
	DAR 2						1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1											4	
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1			9.5	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						1	1	1	1	1	1	1	1	1	1	1			7.5	
	DAR 2																				1	1	1	1	1	1	1													2	
DAR Buses Needed if Only Disabled Served by DAR		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			9	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1			7	
	DAR 2																				1	1	1	1	1	1	1													2	

	8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips	
4/5/2013 *Friday*																																						
DAR Vehicle #1 Disabled				1					1		1	1										1						1										6	
DAR Vehicle #1 Not Disabled - Trip Along Fixed Route			1			1					1										1									1								5	
DAR Vehicle #1 Not Disabled - Trip Not Along FR											1				1																						2	
DAR Vehicle #1 Alta / Choices			1																						1												2	
DAR Vehicle #2 Disabled											1				1		1			1									1	1				1				7	
DAR Vehicle #2 Not Disabled - Trip Along Fixed Route																																						0	
DAR Vehicle #2 Not Disabled - Trip Not Along FR					3	2																			2		3											10	
DAR Vehicle #2 Alta / Choices																																						0	
Total Rides -- Existing DAR	0	0	2	1	3	3	0	0	1	0	4	1	0	0	2	0	1	0	0	1	1	1	0	0	3	0	3	1	1	2	0	0	0	0	1	0	0	32	Psgr-Trips
Total Rides -- If Non-Disabled Psgrs Along FR Shift to FR	0	0	1	1	3	2	0	0	1	0	3	1	0	0	2	0	1	0	0	1	0	1	0	0	3	0	3	1	1	1	0	0	0	0	1	0	0	27	Psgr-Trips
Total Rides -- If Only Disabled Served by DAR	0	0	1	1	0	0	0	0	1	0	2	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0	1	1	1	0	0	0	0	1	0	0	15	Psgr-Trips
Existing # DAR Buses in Operation	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1			14.25	Vehicle-Hours of Service
DAR Buses Needed -- Existing Ridership	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1		13	
DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					1	1	1	1	1	1	1	1	1	1	1	1		8	
DAR 2						1	1	1	1	1	1	1	1	1	1						1	1	1	1	1	1	1	1	1	1								5	
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			11.5	Vehicle-Hours of Service
DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									1	1	1	1	1	1	1	1	1		7	
DAR 2						1	1	1	1	1	1	1	1	1	1					1	1	1	1	1	1	1	1												4.5	
DAR Buses Needed if Only Disabled Served by DAR	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			11.25	Vehicle-Hours of Service
DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	1	1	1	1	1	1	1		7	
DAR 2									1	1	1	1	1	1	1	1	1				1	1	1	1	1	1	1	1												4.25	

	8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips	
4/6/2013 *Saturday*																																						
DAR Vehicle #1 Disabled					1				1		1		1								1						1		1								7	
DAR Vehicle #1 Not Disabled - Trip Along Fixed Route					1		1				2																										4	
DAR Vehicle #1 Not Disabled - Trip Not Along FR															1							1										1					3	
DAR Vehicle #1 Alta / Choices																																					0	
DAR Vehicle #2 Disabled																																					0	
DAR Vehicle #2 Not Disabled - Trip Along Fixed Route																																					0	
DAR Vehicle #2 Not Disabled - Trip Not Along FR																																					0	
DAR Vehicle #2 Alta / Choices																																					0	
Total Rides -- Existing DAR	0	0	0	0	2	0	1	0	1	0	3	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	14	Psgr-Trips
Total Rides -- If Non-Disabled Psgrs Along FR Shift to FR	0	0	0	0	1	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	10	Psgr-Trips
Total Rides -- If Only Disabled Served by DAR	0	0	0	0	1	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	7	Psgr-Trips
Existing # DAR Buses in Operation					1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			7	Vehicle-Hours of Service
DAR Buses Needed -- Existing Ridership					1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			7	
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR					1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			7	Vehicle-Hours of Service
DAR Buses Needed if Only Disabled Served by DAR					1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			7	Vehicle-Hours of Service

		8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips	
4/8/2013 *Monday*																																							
DAR Vehicle #1	Disabled										1				1	1			1				1																5	
	Not Disabled - Trip Along Fixed Route			1																		1																2	
	Not Disabled - Trip Not Along FR							1																														1	
	Alta / Choices			2	1												2									3												8	
	Special Education - Trip Along Fixed Route																																					0	
	Special Education - Trip Not Along Fixed Route							4								1																						5	
DAR Vehicle #2	Disabled							2			1			1			1												1									6	
	Not Disabled - Trip Along Fixed Route															1																1						2	
	Not Disabled - Trip Not Along FR						1		1																	1											1		4	
	Alta / Choices									1																	1												2	
	Special Education - Trip Along Fixed Route																																					0	
	Special Education - Trip Not Along Fixed Route																																					0	
Total Rides -- Existing DAR		0	0	3	1	0	1	7	1	1	2	0	0	1	1	3	3	0	1	0	0	1	1	0	0	1	4	0	0	1	0	1	0	0	0	0	1	0	35	Psgr-Trips
Total Rides -- If Non-Disabled Psgrs Along FR Shift to FR		0	0	2	1	0	1	7	1	1	2	0	0	1	1	2	3	0	1	0	0	0	1	0	0	1	4	0	0	1	0	0	0	0	0	0	1	0	31	Psgr-Trips
Total Rides -- If Only Disabled Served by DAR		0	0	2	1	0	0	2	0	1	2	0	0	1	1	1	3	0	1	0	0	0	1	0	0	0	4	0	0	1	0	0	0	0	0	0	0	0	21	Psgr-Trips
Existing # DAR Buses in Operation		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	14.25	Vehicle-Hours of Service
DAR Buses Needed -- Existing Ridership		1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11.5	
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	1	1	1	1	1	1	1	1	1	1	1	7	
	DAR 2							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1														4.5	
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR		1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11.5	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	1	1	1	1	1	1	1	1	1	1	1	7	
	DAR 2							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1														4.5	
DAR Buses Needed if Only Disabled Served by DAR		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	1	1	1	1	1	1	1	1	1	1	1	7	
	DAR 2																	1	1	1	1	1	1	1	1														2	

		8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips	
4/9/2013 *Tuesday*																																							
DAR Vehicle #1	Disabled			1																	1		1			2												5	
	Not Disabled - Trip Along Fixed Route																				2																	2	
	Not Disabled - Trip Not Along FR					1																																1	
	Alta / Choices			1			2									2										2												7	
	Special Education - Trip Along Fixed Route																																					0	
	Special Education - Trip Not Along Fixed Route							4																														4	
DAR Vehicle #2	Disabled					3			1			2																										6	
	Not Disabled - Trip Along Fixed Route																											1	1			1						3	
	Not Disabled - Trip Not Along FR																	1														1						3	
	Alta / Choices									1																1												2	
	Special Education - Trip Along Fixed Route																																					0	
	Special Education - Trip Not Along Fixed Route																																					0	
Total Rides -- Existing DAR		0	0	2	0	4	2	4	1	1	0	2	0	0	0	2	0	1	0	0	0	3	0	1	0	1	4	0	1	1	0	0	2	0	0	0	1	0	33	Psgr-Trips
Total Rides -- If Non-Disabled Psgrs Along FR Shift to FR		0	0	2	0	4	2	4	1	1	0	2	0	0	0	2	0	1	0	0	0	1	0	1	0	1	4	0	0	0	0	0	1	0	0	0	1	0	28	Psgr-Trips
Total Rides -- If Only Disabled Served by DAR		0	0	2	0	3	2	0	1	1	0	2	0	0	0	2	0	0	0	0	0	1	0	1	0	1	4	0	0	0	0	0	0	0	0	0	0	0	20	Psgr-Trips
Existing # DAR Buses in Operation		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	14.25	Vehicle-Hours of Service
DAR Buses Needed -- Existing Ridership		1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11	
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	1	1	1	1	1	1	1	1	1	7	
	DAR 2					1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1												4	
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR		1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	1	1	1	1	1	1	1	1	1	7	
	DAR 2					1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1												4	
DAR Buses Needed if Only Disabled Served by DAR		1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	1	1	1	1	1	1	1	1	1	7	
	DAR 2					1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1												4	

		8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips	
4/10/2013 *Wednesday*																																							
DAR Vehicle #1	Disabled																					3																3	
	Not Disabled - Trip Along Fixed Route										1																											1	
	Not Disabled - Trip Not Along FR																						1															1	
	Alta / Choices			3		2										2								2														9	
	Special Education - Trip Along Fixed Route																																					0	
	Special Education - Trip Not Along Fixed Route																																					0	
DAR Vehicle #2	Disabled																												3									3	
	Not Disabled - Trip Along Fixed Route																																					0	
	Not Disabled - Trip Not Along FR						1	1								1											1											4	
	Alta / Choices							1																		1												2	
	Special Education - Trip Along Fixed Route																																					0	
	Special Education - Trip Not Along Fixed Route																																					0	
Total Rides -- Existing DAR		0	0	3	0	2	1	2	0	0	1	0	0	0	0	1	2	0	0	0	0	3	0	1	2	0	1	1	0	3	0	0	0	0	0	0	0	23	Psgr-Trips
Total Rides -- If Non-Disabled Psgrs Along FR Shift to FR		0	0	3	0	2	1	2	0	0	0	0	0	0	0	1	2	0	0	0	0	3	0	1	2	0	1	1	0	3	0	0	0	0	0	0	0	22	Psgr-Trips
Total Rides -- If Only Disabled Served by DAR		0	0	3	0	2	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	3	0	0	2	0	1	0	0	3	0	0	0	0	0	0	0	17	Psgr-Trips
Existing # DAR Buses in Operation		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1		14.25	Vehicle-Hours of Service
DAR Buses Needed -- Existing Ridership		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		9	
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									1	1	1	1	1	1	1	1	1		7	
	DAR 2																			1	1	1	1	1	1	1	1											2	
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		9	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									1	1	1	1	1	1	1	1	1		7	
	DAR 2																			1	1	1	1	1	1	1	1											2	
DAR Buses Needed if Only Disabled Served by DAR		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		9	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									1	1	1	1	1	1	1	1	1		7	
	DAR 2																			1	1	1	1	1	1	1	1											2	

		8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips	
4/11/2013 *Thursday*																																							
DAR Vehicle #1	Disabled											2									1							1		1								5	
	Not Disabled - Trip Along Fixed Route																																					0	
	Not Disabled - Trip Not Along FR																																					0	
	Alta / Choices			1	1	2											2										2											8	
	Special Education - Trip Along Fixed Route															3																						3	
	Special Education - Trip Not Along Fixed Route						3																															3	
DAR Vehicle #2	Disabled						1	1								1	1			1																		5	
	Not Disabled - Trip Along Fixed Route																																					0	
	Not Disabled - Trip Not Along FR																													1								1	
	Alta / Choices							1																			1											2	
	Special Education - Trip Along Fixed Route																																					0	
	Special Education - Trip Not Along Fixed Route																																					0	
Total Rides -- Existing DAR		0	0	1	1	2	4	2	0	0	0	2	0	0	0	4	3	0	0	1	0	1	0	0	0	0	3	0	1	0	2	0	0	0	0	0	0	27	Psgr-Trips
Total Rides -- If Non-Disabled Psgrs Along FR Shift to FR		0	0	1	1	2	4	2	0	0	0	2	0	0	0	1	3	0	0	1	0	1	0	0	0	0	3	0	1	0	2	0	0	0	0	0	0	24	Psgr-Trips
Total Rides -- If Only Disabled Served by DAR		0	0	1	1	2	1	2	0	0	0	2	0	0	0	1	3	0	0	1	0	1	0	0	0	0	3	0	1	0	1	0	0	0	0	0	0	20	Psgr-Trips
Existing # DAR Buses in Operation		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1		14.25	Vehicle-Hours of Service
DAR Buses Needed -- Existing Ridership		1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		9.5	
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1		7.5	
	DAR 2															1	1	1	1	1	1	1	1															2	
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR		1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		9.5	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1		7.5	
	DAR 2															1	1	1	1	1	1	1	1															2	
DAR Buses Needed if Only Disabled Served by DAR		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		9	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									1	1	1	1	1	1	1	1	1	1		7	
	DAR 2																	1	1	1	1	1	1	1	1													2	

		8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips	
4/12/2013 *Friday*																																							
DAR Vehicle #1	Disabled																			1	1										1							3	
	Not Disabled - Trip Along Fixed Route							1																														1	
	Not Disabled - Trip Not Along FR																																					0	
	Alta / Choices				2	1																				4												7	
	Special Education - Trip Along Fixed Route											5				5																						10	
	Special Education - Trip Not Along Fixed Route									2				2																								4	
DAR Vehicle #2	Disabled																												1									1	
	Not Disabled - Trip Along Fixed Route					1																												1				2	
	Not Disabled - Trip Not Along FR						1			1		8				1			9								1						1					22	
	Alta / Choices									1																1												2	
	Special Education - Trip Along Fixed Route																																					0	
	Special Education - Trip Not Along Fixed Route																																					0	
Total Rides -- Existing DAR		0	0	0	2	2	1	1	0	4	0	13	0	2	0	6	0	0	9	1	1	0	0	0	0	0	5	1	0	1	0	1	0	1	1	0	0	0	52	Psgr-Trips
Total Rides -- If Non-Disabled Psgrs Along FR Shift to FR		0	0	0	2	1	1	0	0	4	0	8	0	2	0	1	0	0	9	1	1	0	0	0	0	0	5	1	0	1	0	1	0	1	0	0	0	0	39	Psgr-Trips
Total Rides -- If Only Disabled Served by DAR		0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	5	0	0	1	0	1	0	0	0	0	0	0	13	Psgr-Trips
Existing # DAR Buses in Operation		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1		14.25	Vehicle-Hours of Service
DAR Buses Needed -- Existing Ridership		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1		12.25	
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								1	1	1	1	1	1	1	1	1	1	1		7.5	
	DAR 2					1	1	1	1	1	1	1	1	1	1	1					1	1	1	1	1	1	1	1												4.75	
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR		1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1		11.5	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								1	1	1	1	1	1	1	1	1	1	1		7.5	
	DAR 2									1	1	1	1	1	1	1	1				1	1	1	1	1	1	1	1												4	
DAR Buses Needed if Only Disabled Served by DAR		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		9	Vehicle-Hours of Service
	DAR 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1		7	
	DAR 2																	1	1	1	1	1	1	1	1															2	

		8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM	12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	Total Daily Trips	
4/13/2013 *Saturday*																																							
DAR Vehicle #1	Disabled					1						1											1																3	
	Not Disabled - Trip Along Fixed Route							1				1		1																									3	
	Not Disabled - Trip Not Along FR																																						0	
	Alta / Choices																																						0	
	Special Education - Trip Along Fixed Route																																						0	
	Special Education - Trip Not Along Fixed Route																																						0	
DAR Vehicle #2	Disabled																																						0	
	Not Disabled - Trip Along Fixed Route																																						0	
	Not Disabled - Trip Not Along FR																																						0	
	Alta / Choices																																						0	
	Special Education - Trip Along Fixed Route																																						0	
	Special Education - Trip Not Along Fixed Route																																						0	
Total Rides -- Existing DAR		0	0	0	0	1	0	1	0	0	0	2	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	Psgr-Trips
Total Rides -- If Non-Disabled Psgrs Along FR Shift to FR		0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	Psgr-Trips
Total Rides -- If Only Disabled Served by DAR		0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	Psgr-Trips
Existing # DAR Buses in Operation						1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		7	Vehicle-Hours of Service
DAR Buses Needed -- Existing Ridership						1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		7	
DAR Buses Needed if Non-Disabled Psgrs along FR Shift to FR						1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		7	Vehicle-Hours of Service
DAR Buses Needed if Only Disabled Served by DAR						1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		7	Vehicle-Hours of Service

Appendix B

Senate Bill 1263

BILL NUMBER: SB 684 CHAPTERED
BILL TEXT

CHAPTER 200
FILED WITH SECRETARY OF STATE SEPTEMBER 10, 2007
APPROVED BY GOVERNOR SEPTEMBER 10, 2007
PASSED THE SENATE AUGUST 27, 2007
PASSED THE ASSEMBLY JULY 9, 2007
AMENDED IN ASSEMBLY JUNE 28, 2007
AMENDED IN ASSEMBLY JUNE 5, 2007
AMENDED IN SENATE APRIL 17, 2007

INTRODUCED BY Senator Cox

FEBRUARY 23, 2007

An act to amend Section 14035.55 of the Government Code, relating to transportation.

LEGISLATIVE COUNSEL'S DIGEST

SB 684, Cox. Intercity rail services: feeder buses.

Existing law authorizes the Department of Transportation to contract with Amtrak to provide intercity rail passenger services. Existing law also authorizes the department to provide funding to Amtrak to contract for feeder bus services operated in conjunction with the intercity trains, but subject to the restriction, among others, that the bus services be used only by passengers who are connecting to or from a train.

This bill would remove this restriction with respect to a feeder bus service contracted by Amtrak to serve the route between the City of Sacramento and the City of South Lake Tahoe and intermediate points if no other bus service is provided by a private intercity bus company, and would authorize the department to amend its contract with Amtrak for that purpose. The bill would also require the department to report to the Legislature in that regard by March 1, 2010.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 14035.55 of the Government Code is amended to read:

14035.55. (a) The Legislature finds and declares all of the following:

(1) Intercity passenger bus service provided by intercity bus companies on a regular-route basis is the only public mass transportation service in the state to provide surface transportation without public subsidy.

(2) The long-term maintenance of private sector intercity passenger service is of vital importance to the state.

(3) Intercity bus companies serve many communities throughout California, providing a network of connection points without equal by any other mode of public or private transportation.

(b) To the extent permitted by federal law, the department shall encourage Amtrak and motor carriers of passengers to do both of the following:

(1) Combine or package their respective services and facilities to the public as a means of improving services to the public.

(2) Coordinate schedules, routes, rates, reservations, and ticketing to provide for enhanced intermodal surface transportation.

(c) Except as authorized under subdivisions (e) and (f), the

department may provide funding to Amtrak for the purpose of entering into a contract with a motor carrier of passengers for the intercity transportation of passengers by motor carrier over regular routes only if all of the following conditions are met:

(1) The motor carrier is not a public recipient of governmental assistance, as defined in Section 13902(b)(8)(A) of Title 49 of the United States Code, other than a recipient of funds under Section 5311(f) of that title and code. This paragraph does not apply if a local public motor carrier proposes to serve passengers only within its service area.

(2) Service is provided only for passengers on trips where the passengers have had prior movement by rail or will have subsequent movement by rail, evidenced by a combination rail and bus one-way or roundtrip ticket, or service is also provided on State Highway Route 50 between the City of Sacramento and the City of South Lake Tahoe and intermediate points for passengers solely by bus if no other bus service is provided by a private intercity bus company.

(3) Vehicles of the motor carrier, when used to transport passengers pursuant to paragraph (2), are used exclusively for that purpose.

(4) The motor carrier is registered with the United States Department of Transportation (DOT) and operates in compliance with the federal motor carrier safety regulations, and provides service that is accessible to persons with disabilities in compliance with applicable DOT regulations pertaining to Amtrak services, in accordance with the federal Americans with Disabilities Act of 1990 (Public Law 101-336).

(d) The department shall incorporate the conditions specified in subdivision (c) into state-supported passenger rail feeder bus service agreements between Amtrak and motor carriers of passengers. The bus service agreements shall also provide that a breach of those conditions shall be grounds for termination of the agreements.

(e) Notwithstanding subdivisions (c) and (d), the department may provide funding to Amtrak for the purpose of entering into a contract with a motor carrier of passengers to transport Amtrak passengers on buses operated on a route, if the buses are operated by the motor carrier as part of a regularly scheduled, daily bus service that has been operating consecutively without an Amtrak contract for 12 months immediately prior to contracting with Amtrak.

(f) Notwithstanding subdivisions (c) and (d), or any other provision of law, the department may enter into a contract, either directly with a public motor carrier in the County of Monterey, or indirectly with that carrier through a contract with Amtrak, to provide mixed-mode feeder bus service on the San Jose-Gilroy-Monterey route. The contract with a public motor carrier may only be entered into if the department determines that there is no private motor carrier providing scheduled bus service on the San Jose-Gilroy-Monterey route. However, the contract shall be terminated, within 120 days' notice to the public motor carrier, if a private motor carrier again operates a scheduled service on the San Jose-Gilroy-Monterey route.

(g) Pursuant to paragraph (2) of subdivision (c), the department may amend its contract with Amtrak to add a term to provide bus service to passengers traveling solely by bus on the Sacramento-South Lake Tahoe route. The contract amendment with Amtrak may only be entered into if the department determines that there is no private motor carrier providing scheduled bus service on that route. However, the contract amendment shall be terminated, within 120 days' notice to Amtrak, if a private motor carrier again operates a scheduled bus service on the Sacramento-South Lake Tahoe route.

(h) The department shall undertake a two-year study of patronage on the bus service operated between the City of Sacramento and the City of South Lake Tahoe and intermediate points pursuant to subdivision (g), identifying the number of passengers who are transferring to an Amtrak rail service and those who are traveling

solely on the bus service. The study shall identify the revenue from each category of passengers and include other pertinent ridership information. The report shall be submitted to the transportation policy committees of the Legislature no later than March 1, 2010.

(i) For purposes of this section, the following terms have the following meanings:

(1) "Amtrak" means the National Railroad Passenger Corporation.

(2) "Department" means the Department of Transportation or the department's successor with respect to providing funds to subsidize Amtrak service.

(3) "Motor carrier of passengers" means a person or entity providing motor vehicle transportation of passengers for compensation.

(4) "Mixed-mode feeder bus service" means bus service carrying both passengers connecting to or from a rail service and passengers only using the bus service.