

EASTERN COLORADO
REGIONAL TRANSPORTATION PLAN

FINAL TRANSIT PLAN ELEMENT UPDATE

MAY 17, 2004

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Prepared for:
East Central Council of Governments
and
Northeast Colorado Association of Local Governments

in cooperation with
Colorado Department of Transportation

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CHAPTER 1: INTRODUCTION

The Northeast Colorado Association of Local Governments (NECALG) and the East Central Council of Governments (ECCOG) contracted with DMJM+HARRIS to prepare the 2030 Transportation Plan for the Eastern Transportation Planning Region (TPR). The contract also called for the Consultant to prepare an Update to the Transit Element previously prepared for the Eastern TPR in 2001. The Transit element includes the nine counties in the Eastern TPR as well as Morgan County.

The Transit Element meets requirements called for in CDOT's Transit Element Guidelines (2002) and includes two critical components, the Short Range Element (6 Years) and Long Range Element (25 years) required by CDOT for use in allocating Federal Transit Administration funds to Transit Agencies within the Region.

The Draft Transit Element document was reviewed by the Transit Advisory Committee of ECCOG and by the County Express Board of Directors. The names of the individuals representing these organizations are listed below:

ECCOG Transit Advisory Committee

- Tom McCauley, City of Burlington
- Pete Kjosness, Lincoln County Commissioner
- Jessie Pavlica, Simla Good Samaritan Center
- John Nichols, Kit Carson County Commissioner
- Clarence Holthus, representing vehicle owners
- Betty Bredehoft, RSVP

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Art Schmidt, representing drivers

- Jennifer Stewart, CDOT-Transit Rail/Unit
- Joe Kiely, Town of Limon
- Cathy Beebe, Dynamic Dimensions, Inc
- Carl Hapes Jr., Cheyenne County Commissioner
- John Metli, Elbert County Commissioner
- Raymond Konecne, Area Seniors

NECTA Board Members

- Mark Arndt, Chairman County Commissioner, Morgan County
- Dean Wingfield, Vice-Chairman County Commissioner, Yuma County
- Mike Woltemath, Treasurer County Commissioner, Sedgwick County
- Bonnie Moore, Secretary Senior Services Coordinator, Phillips County
- Greg Etl, County Commissioner, Logan County
- Jerry Beavers, County Commissioner, Phillips County
- Fred Crawford, Director Logan County Dept of Human Services
- Marlene Miller, Senior Services Coordinator for Yuma County
- Dennis Everhart, County Commissioner, Washington County
- Jerry Kollman, Private Sector, Washington County

The document was approved by the Boards of NECALG and ECCOG and is acceptable as the Update to the Transit Element of the 2030 Eastern TPR Transportation Plan.

Background

In previous long-range transportation planning cycles, CDOT relied on Transit Development Plans (TDPs) to identify the transit components of the regional transportation plans. However, after 2004, TDPs are no longer a requirement of CDOT's transit planning activities and are replaced by the Transit Element of the 20-Year Regional Transportation Plans.

Transit Element Structure

Chapter 2 of the Transit Element provides information regarding the existing transit operations within the 10-county region. Detailed information is provided for the two large service providers in the Region, Outback Express (ECCOG) and County Express (NECALG). Smaller transit providers within the region and a brief description of their services are also provided.

Chapter 3 discusses a socioeconomic and environmental profile for the Region. The difference between this Chapter and the similar Chapter in the Regional 2030 Plan is that Morgan County is included in this data.

Chapter 4 includes the Transit Demand and Needs Analysis conducted for the eastern TPR. Chapter 5 discusses strategies to be considered to provide more effective transit services within the region and also transit service alternatives available to the TPR.

Chapter 6 includes the 26-Year Long Range Transit plans and budgets for the 10-county area. Included are both the preferred plan - that which is desired but for which financial resources are not currently available to accomplish the Plan; as well as the Constrained Plan - the Plan that is based on current revenue streams adequate to continue existing transit services and replace transit vehicles as necessary.

Chapter 7 is the Short Range (6-year) Element. It includes year-by-year plan and detailed 6-year budgets of revenues and expenses for provision of transit services for both Outback Express and County Express based on those revenues anticipated to be available from 2005 to 2010.

Regional Transit Issues

The following is a list of issues related to transit in the Eastern TPR that have been identified from numerous sources including discussions with members of the public at Open Houses and community meetings within in the TPR, local elected officials, transit managers and Transit Board members, and Transit Advisory Committee members:

- Find ongoing, sustainable funding for transit services and replacement vehicles within the region
- Develop regularly scheduled transit services from the region to Front Range communities
- Develop more services between major centers within the region
- There needs to be more marketing of the Transit services presently available
- Western Elbert County should attempt to get into the Regional Transportation District (RTD)
- Regularly scheduled routes in Sterling and Fort Morgan should be considered

CHAPTER 2: INVENTORY OF EXISTING SYSTEMS AND SERVICES

This chapter discusses existing transit providers within the 10-county area covered by this Transit Element. The Chapter is divided into the two sub-regions comprising the Eastern TPR: the ECCOG area (Cheyenne, Elbert, Kit Carson, and Lincoln counties) and the NECALG area (Logan, Morgan, Phillips, Sedgwick, Yuma, and Washington counties). A significant amount of detail is provided for the two major providers (Outback Express and County Express), while the other transit providers are identified without including detailed descriptions of their inventory or services.

ECCOG Transit

This chapter discusses existing transit providers in Cheyenne, Elbert, Kit Carson, and Lincoln counties. Included are public, private, and non-profit providers. In addition to a profile of the services provided, an analysis of the cost effectiveness and service efficiencies of Outback Express will be presented. The following agencies will be highlighted:

- East Central Council of Local Governments Public Transit Services
 - Outback Express
 - City of Burlington
 - Town of Limon
 - Dynamic Dimensions, Inc.
 - Retired and Senior Volunteer Program (RSVP)
- Residential Elderly Providers
 - Cheyenne Manor Nursing Care Center
 - Grace Manor Care Center
 - Prairie View Care Center
- Early Childhood Programs
 - Limon Child Development Center
- Intercity Providers
 - Dashabout Shuttle
 - Greyhound Lines

Existing Transit Services

East Central Council of Local Governments Public Transit

The East Central Council of Local Governments (ECCOG) is a voluntary association of county and municipal governments in Cheyenne, Elbert, Kit Carson, and Lincoln counties. A multi-purpose organization, ECCOG promotes economic development, is the designated area agency on aging for this

planning and service area, provides regional technical assistance to local governments, and coordinates a regional public transit system, known as the Outback Express.

The coordinated public transit system known as Outback Express includes several transit operations. The primary service, Outback Express, is operated under the direct control of ECCOG. Other localized services offered include service in the City of Burlington, Town of Limon, Dynamic Dimensions, Inc. in Burlington, and the Retired and Senior Volunteer Program (RSVP) in Lincoln and Kit Carson Counties. Memorandums of Understanding establish the relationship among these local transit service providers.

The Outback Express applies to FTA Section 5310 and 5311 programs for assistance in securing administrative, operating, and capital funding for these local services. CDOT's Transit Unit awards and administers these funding programs.

The management of these ECCOG services is the responsibility of the Outback Express Director and Transit Program Specialist. A thirteen member Transit Advisory Committee provides oversight. (See Appendix A for a listing of current members.) Local governments, often the owners of vehicles in addition to those secured with FTA funding, are members as well as the agencies utilizing the services. Other groups that participate in directing the policy decisions of the transit operations include area seniors, persons with disabilities, and system drivers. The Colorado Department of Transportation's Transit Unit is also represented on this advisory committee.

Outback Express

The Outback Express is a scheduled demand responsive system offering service to older adults, persons with disabilities, and the general public in the sparsely populated but large geographic area including Cheyenne, Elbert, Kit Carson and Lincoln counties. All vehicles are white with blue stripes and are clearly marked with ECCOG's regional logo and the words "Public Transportation". This makes the vehicles more visible in the communities and increases the public's awareness of public transportation.

The Outback Express strives to make all segments of the population aware of the service. A monthly news release is prepared for each of the Region's newspapers, giving public information about the schedules, the drivers, training programs, planning efforts, etc. in an effort to make the transit system more familiar. The ECCOG utilizes a bi-fold brochure advertising the transit services and their availability to the general public. The web site (<http://outbackexpress.tripod.com>) is promoted throughout the region. Schedules are published monthly in the region's weekly newspapers, and the transit calendar is distributed monthly to area housing authorities, town halls, Departments of Social Services, public health services, and other provider agencies likely to refer the general public to the available services. Schedules are also published monthly on the website.

In order to provide the most responsive service as economically as possible, vans and wheelchair accessible mini-buses are based out of eleven of the region's communities. In addition to providing transportation to local nutrition meal sites, transit is provided for essential shopping, errands, medical appointments, courthouse, post office, etc. Much of the activity for these vehicles is interregional traveling long distances for medical and other necessary appointments. All of the trips scheduled outside the respective communities require a 5-passenger minimum. Exception may be made in the instance of a necessary medical appointment. Reservations are made directly with the local drivers. They can also be made by calling the toll-free number at the main ECCOG office in Stratton as well as an after normal business hours answering machine. Inquiries received on the answering machine get a response as soon as possible the next business day.

A fare system for out of community trips has been established, based on 4 ½ cents per mile. The fare is charged (round-trip) from the pick-up location to the destination and the return trip. However, one-way trips are accommodated if possible. Discounted fares, subsidized by Older Americans Act Title III funds through the East Central Area Agency on Aging, are offered to persons over the age of 60. At this point, all Medicaid payments in this area are being directed to reimbursing private vehicle mileage for transportation and the Outback Express does not receive any revenue from this funding source. A fare of \$1.00 has been established for all "around town" trips within each community.

Cheyenne County Three vehicles are based in Cheyenne County. Two vehicles are based in Cheyenne Wells and one in Kit Carson. One of these vehicles was funded entirely by the local senior center. A mini-van provides services within the community of Cheyenne Wells every Monday, Wednesday, and Friday. A new mini-bus with wheel-chair access provides services within the community of Kit Carson every Monday and Friday. The van also provides service to Cheyenne Wells once a month for medical shopping and personal business to the courthouse. A wheelchair accessible vehicle based in Cheyenne Wells is used three times per month to provide trips to Colorado Springs, Lamar and Burlington.

Elbert County Two vehicles are based in Elbert County. One is based in Simla and one in Kiowa. The Simla-based vehicle makes two scheduled trips per month to Colorado Springs. The Good Samaritan Nursing Home uses the Simla vehicle once per month for outings. The Kiowa-based vehicle makes three monthly trips, one to Denver and two to Colorado Springs.

Kit Carson County Four vehicles are based in Burlington, Stratton, Seibert and Flagler to serve Kit Carson County. The Burlington vehicle provides two scheduled trips per month, one to Colorado Springs and one to Denver. The Stratton based vehicle also makes a monthly trip to Denver and Colorado Springs and provides trips to a local meal site on Monday and Wednesday. The Seibert based vehicle provides service to the nutrition site in Seibert from Vona and Seibert twice per week, as well as three scheduled trips monthly to Burlington, Limon and Goodland, Kansas. The final vehicle, based in Flagler, provides two monthly trips to Burlington and Goodland, Kansas. Meal site, courthouse, shopping, post office, etc. related transportation within the community is provided two days a week.

Lincoln County Lincoln County has two vehicles, one based in Arriba with the second based in Hugo. The Arriba-based vehicle makes three scheduled trips monthly, two to Hugo and one to Limon. The Hugo based vehicle makes a monthly scheduled trip to Denver or Colorado Springs or Sterling. Six days a month, it provides service to three local nursing homes, the Lincoln Community Nursing Home, Bee Hive Assisted Living Home, and Prairie View Care Center.

In addition to the scheduled service, these vehicles are available for community centered or educational trips such as attending Senior Days at the Capitol or the Eastern Plains Senior Speak-Out. These trips, as well as charter trips for recreation purposes, are restricted by availability of a vehicle and a driver. For charter trips, groups of passengers must assume responsibility for paying all expenses, including driver salaries, fuel and a per mile fee.

City of Burlington

With equipment provided under the umbrella of ECCOG's Outback Express organization, this city service is available on a request basis to individuals who ordinarily would not be able to get around the City of Burlington. One vehicle is assigned to this service and the fare is \$ 0.25 per trip. The vehicle operates within a six-mile radius of the city limits.

Service operates from 8 am to 5 pm, Monday to Friday, with a 24-hour advance reservation required.

Town of Limon

Using a vehicle provided by the Outback Express organization, the Town of Limon provides limited scheduled demand-responsive service twice per week. Hours are from 11 am to 2 pm. Payment of a \$1.00 fare allows the rider to make all stops necessary at the grocery store, pharmacy, clinic, bank, post office, etc.

Dynamic Dimensions, Inc.

Operating primarily in the Burlington area, this service is limited to agency clients with developmental disabilities. The primary service is focused on two group residential facilities and their associated programs. Transportation is provided between these homes and a sheltered workshop or job sites. Other clients are who live in the vicinity of Burlington also served

Service operates from 8 am to 4 pm, Monday to Friday. One vehicle provides this service and there is no fare or donation requested. A significant service gap exists on weekends and after 5 pm. This is particularly difficult for persons needing to get to the workplace.

Retired and Senior Volunteer Programs (RSVP)

This service operates in Lincoln and Kit Carson counties with many trips driven by volunteer drivers. The Retired and Senior Volunteer Program (RSVP) provides worthwhile volunteer opportunities to persons 55 years and older in the Kit Carson/Lincoln county area. The drivers for the transportation service provide mobility to other seniors.

All riders must be members of the RSVP program. There are no regular hours of operation, with trips scheduled for planned RSVP activities. Transportation is primarily limited to nursing homes, senior centers, and meetings. However, occasional trips are provided for social visits with friends and relatives and for recreational activities such as cultural and athletic events. Public ridership is not available.

The RSVP often uses the Stratton and Burlington based Outback Express vehicles on a temporary basis. Service is also being impacted by the difficulty in finding volunteers who are willing and able to provide driving services.

Other Specialized Service Providers

Several local assisted living facilities and nursing homes provide transportation to their residents. These services are often augmented with special trips by the ECCOG services.

Cheyenne Manor Nursing Care Center

Located in Cheyenne Wells, a wheel-chair accessible vehicle provides service on a restricted demand-responsive basis to its residents seven days per week. Driving responsibility rotates among social services and activities staff. Most trips are for medical appointments and often require transportation to Pueblo or Colorado Springs and most trips are made between 10 am and 4 pm. Concerns about insurance and limited staffing are a barrier to providing more service.

Grace Manor Care Center

Located in Burlington, Grace Manor specializes in long-term care of elderly residents.

As part of the residential life there, one vehicle provides limited transportation to medical appointments and for recreational purposes, generally Monday through Friday during the day. Trips are arranged on an as-needed basis and only within the Burlington city limits.

Prairie View Care Center

Located in Limon, one vehicle provides service limited to transportation for residents to medical appointments. While the majority of trips are within Limon, some trips are made to Denver or Colorado Springs. These are round-trips with the staff person driving the vehicle waiting for the residents during their appointments.

Limon Child Development Center

This Head Start center serves children ages 3-5. Participants are from Lincoln County and the portion of Elbert County in the Limon School District. Origins for trips include Arriba, Hugo, Genoa, the area south of Limon and the Town of Limon. Two vehicles are in use and provide transportation from 8:00 am to 4:30 pm, Monday through Friday. Funding is provided by a federal grant through the Head Start Program for low-income families.

Currently serving around five children per day, as the number of participants in the Head Start program grows, there may be a need to expand the service to South Lincoln County. Hiring trained drivers, including part-time substitute drivers, is a problem for this service.

Intercity Providers

Dashabout

Dashabout Roadrunner is a for-hire motor carrier operating fixed route scheduled service under authority of the Colorado Public Utilities Commission (PUC). Service is provided in both the ECCOG and NECALG areas. The Roadrunner specializes in scheduled, fixed route, and intercity rural passenger service with urban and resort connections. While a schedule is on file with the PUC showing service to the ECCOG area, most activity appears to be north along the I-76 corridor. However, the opportunity to increase service to the ECCOG area is being encouraged.

While a schedule is on file with the PUC showing service to the ECCOG area, most activity appears to be to the north along the I-76 corridor. Therefore, this transit service is addressed with NECALG providers. However, the opportunity to increase service to the ECCOG area is being encouraged.

Greyhound

Greyhound Lines provides two round trips daily westbound along I-70 to the Denver area. Departures from Burlington are 4:30 am and 6:00 pm. The estimated travel time is three hours and twenty-five minutes, and the buses do not stop in each community along the I-70 corridor. Upon reaching Denver, passengers must make other travel arrangements to reach their final travel destinations. A one-way fare is now \$23.00, down from \$31.00 in 2001. A round-trip ticket currently costs \$45.00, which is considerably less than the \$61.50 round trip ticket in 2001. One-way travel time is 1 hour and 35 minutes from Limon to Denver.

Evaluation of Service Efficiencies

ECCOG is responsible for budgeting and reporting all transit related information for the Outback Express and the closely related operations in the City of Burlington and Town of Limon, Dynamic Dimension, Inc. and the RSVP program. Therefore, all efficiency analysis is based on aggregated information.

Ridership/Vehicle Miles/Vehicle Hours

Operating information for all of ECCOG's Outback Express services are reported for the years 1998 to 2002 in Table 2-1. Ridership for the entire ECCOG systems increased nearly 14% percent from 51,190 passengers in 1998 to 58,279 in 2002. Of interest is the considerable increase in vehicle hours and the drop in miles traveled. This is especially noted by a drop of nearly 25% in vehicle miles in 2002 from 2000. This would indicate that the distance traveled per trip has decreased significantly. This decrease was primarily from the elimination of a checkpoint service in Limon and two vehicles previously operated by Dynamic Dimensions being taken out of service. Currently, staff is recording only driving hours. This adjustment was made to more accurately report the actual time spent on transportation services. Particular attention should be directed to these factors, mileage and hours, over the next operating year to monitor that vehicle mileage and operating hours in relation to the other factors has stabilized. Rider details are shown in Table 2-2.

Table 2-1: Outback Express Operating Information							
	1998	1999	2000	2001	2002	1998-2002 Absolute Change	1998-2002 Percent Change
Ridership	51,190	55,686	50,340	51,340	58,279	7,089	13.8%
Vehicle Hours	7,183	7,318	7,265	7,587	11,380 #	4,197	58.4%
Vehicle Miles	119,823	166,633	167,631	132,357	122,880	3,057	2.6%
Operating Exp.	128,000	133,606	147,218	167,189	158,684	30,684	24.0%
Admin. Expenses	24,000	45,332	53,856	40,371	42,681 ##	18,681	77.8%

- DDI added a vehicle from 2001 to 2002 which resulted in an increase in vehicle hours; however, the total system became more efficient in vehicle usage due to better coordination of trips, which resulted in fewer miles reported.

- Increased FTA administrative revenues helped offset overhead costs such as rent, utilities and supplies. FTA did not share in these administrative expenses in previous budgets.

Table 2-2 Outback Express Riders and Trip Purpose	
It is estimated that riders can be identified with the following groups:	
Non Disabled, Over 60	3%
Disabled, Over 60	11%
Disabled, Under 60	71%
General Public	15%
Trip purposes are estimated as follows:	
To medical sites	4%
To nutrition sites	7%
To employment/education	60%
To shopping/personal business	17%
To social/recreational	12%
Source: FORM C 2002 Performance Report for FTA Section 5310 & 5311 Recipients	

Outback Express Vehicle Inventory/Fleet Utility

The system fleet includes 12 vehicles in the primary fleet. (Table 2-3) A secondary fleet includes older vehicles and those vehicles purchased with all local funds. The location and service area for these vehicles is identified after the listing for Vehicle Make/Model. It should be noted that in most instances, the required 20% local match funds used to purchase these vehicles was provided by the local government or non-profit organization where the vehicle is in use. While most vehicles are purchased with FTA 5310/5311, local funding from other grants and local contributions has also been used to purchase several vehicles for ECCOG/Outback Express. Based on the financial investment of the matching funds or other funds, there is a strong sense of local ownership.

Table 2-3 Outback Express Vehicle Inventory													
Make/ Model	Yr	Vin Last 4	Own by	Price (\$ X 1,000)	Fund	Sta-tus	Usage	Mileage	Seat #	Wheel Chair	Con-dition	Re-tire.	Repl. Cost
Primary Fleet													
Ford-Goshen Mini-bus (CC)	98	3373	FTA	44	5310	P	R/G/E D	12,930	12	2	Exc.	07	55
Ford Van (KC) Replace '03	88	2282	FTA	16	5310	P	R/G/E D	179,770	12	0	Poor	02	52
Ford Mini-bus (EC Kiowa)	95	6188	FTA	38	5310	P	R/G/E D	46,942	13	1	Good	04	55
Ford Mini-bus (EC Simla)	99	4353	FTA	42	5310	P	R/G/E D	23,304	13	1	Exc.	08	55
Ford Goshen Mini-bus (KCC-Burl)	96	1487	FTA	39	5310	P	R/G/E D	74,873	13	1	Fair	05	55
Ford/Thomas Mini-bus (Burl City)	01	0188	FTA	45	5310	F	R/G/E D	16,177	13	1	Exc.	10	60
Ford/Goshen (KCC-Stratt	96	1488	FTA	39	5310	P	R/G/E D	89,718	13	1	Fair	05	55
Chev van (LC Arriba) Replace '03	89	5737	FTA	17	5310	P	R/G/E D	229,625	12	0	Poor	02	52
Ford/Goshen Mini-bus (Lin. Co Hugo)	02	0426	FTA	44	5310	F	R/G/E D	7,759	13	1	Exc.	11	60
Ford/Goshen Mini-bus (Limon)	97	4193	FTA	39	5310	P	R/G/E D	38,044	12	1	Good	06	55
Ford Mini-bus (KCC Flagler)	00	6067	FTA	45	5310	P	R/G/E D	16,909	13	1	Exc.	09	60
GMC Mini-van (DDI)	98	1741	FTA	19	5310	F	R/G/E D	66,004	7	0	Good	07	55

Table 2-3 Outback Express Vehicle Inventory													
Make/ Model	Yr	Vin Last 4	Own by	Price (\$ X 1,000)	Fund	Sta-tus	Usage	Mileage	Seat #	Wheel Chair	Con-dition	Re-tire.	Repl. Cost
Secondary Fleet													
Ford Aero. Mini-van (C.W.)	96	7321	0	15	Local	B	R/G/ED	76,761	7	0	Good		
Ford Van (KCC Seibert)	84	4010	FTA	12	Local	P	R/G/ED	112,150	12	0	Fair		
GMC Van (KCC-Backuo)	87	3413	FTA	16	5311	B	R/G/ED	139,253	12	0	Fair		
Ford Mini-van (DDI)	00	1484	0	23	Local	F	R/ED	21,724	12	0	Exc.		
Ford Mini-van (DDI)	00	1485	0	23	Local	F	R/ED	18,426	12	0	Exc.		
GMC Mini-van (DDI)	98	8393	0	19	Local	F	R/ED	55,486	7	0	Good		
GMC Std.W/C (DDI)	95	0769	0	11	Local	F	R/ED	57,722	5	1	Good		

Vehicle Fleet Utility

An area of concern for the ECCOG system is vehicle utility. There are twelve vehicles in the fleet that have a Federal interest. Seven additional vehicles are available that have been purchased with all local funds or are older and the Federal interest has expired.

FTA Service Life Policy establishes normal service lives for buses and vans used in transit service. These policies are meant to ensure that buses purchased or leased with federal funds are maintained and remain in transit use for a minimum normal service life and to ensure that the buses acquired are necessary for regularly scheduled transit revenue service. These criteria do not apply directly to all the ECCOG fleet, as there are many vehicles that have not been purchased with federal funds. However, this policy does establish a point of reference for use of these vehicles.

The expected service life for light duty vehicles such as small buses and regular and specialized vans is 5 years or 100,000 miles. This would equate to 20,000 miles per year, well above the 10,240 average annual mileages for ECCOG vehicles as shown in Table 2-4.

Table 2-4 ECCOG Primary Fleet Vehicle Utility (2002)			
12 Vehicles	Yearly per Vehicle	Monthly per Vehicle	Weekly per Vehicle
Vehicle Hours	11,380	948	18
Vehicle Miles	122,880	10,240	197
Note: There are 7 additional vehicles available to Outback Express. These vehicles have been purchased with local funds or the Federal interest has expired.			

Another factor used to establish vehicle utility is the Spare Ratio Policy. Spare ratio is defined as the number of spare vehicles divided by the vehicles required for annual maximum service. Spare ratio is usually expressed as a percentage, e.g. 100 vehicles required and 20 spare vehicles is a 20 percent spare ratio.

The standard spare ratio for larger active fleets, 50 or more revenue vehicles, should not exceed 20 percent of the number of vehicles operated in maximum service. Due to the wide area covered by ECCOG, it would be anticipated that the ratio would be higher. The spare ratio for the ECCOG fleet is:

$$2 \text{ backup fleet vehicles} / 17 \text{ full and part-time service vehicle} = 12\% \text{ spare ratio}$$

The age of the fleet, particularly the backup and part-time fleet should be addressed. The average vehicle in the primary fleet was manufactured 1996, or 8 years old. The average vehicle in the secondary fleet was manufactured in 1994 and is 10 years old. The older vehicles in this group will be more expensive to maintain and will provide marginal utility.

Financial Analysis

2002 Operating Budget

The 2002 Operating, Administrative and Capital Budgets are shown in Table 2-5. Total revenue is \$264,000. Farebox and donations provide a very small portion of operating expenses. Federal funding and other grants provide 43% of the remaining expenses. In-Kind Contributions provide the remaining 46% of revenue needed to maintain operations. This contribution provides the required matching funds required by the FTA; a 50% match is required for funds provided to cover operating expenses, a 30% match is required to cover administrative expenses, and a 20% match is required to cover capital investments.

In-kind funding is made available in two ways. First, the various local governments provide specific operating necessities such as fuel and maintenance services. Second, administrative services, both in terms of employee time and support for programs, such as insurance, are provided. This is an excellent example of cooperation and coordination between these agencies. However, operating and administrative budgets are often constrained by this significant amount of in-kind funding.

In term of operations, it should be noted that Outback Express has no full time employees except for the City of Burlington. Most employees, from the director to drivers, have additional responsibilities and are involved in other programs. For example, the "drivers" also supervise the meal sites, run educational programs, and perform outreach activities associated with Older Americans Act efforts.

Table 2-5 ECCOG Outback Express – 2002 Financial Budget	
Transit Revenues	
Fare/Donations	\$3,000
FTA 5309	-
FTA 5310	\$42,000
FTA 5311	\$64,000
Title III	\$8,000
Charter Service Income	\$3,000
County and Municipal Contributions	\$14,000
Capital Cash	\$9,000
In Kind	\$121,000
Total Revenues	\$264,000

Table 2-5 ECCOG Outback Express – 2002 Financial Budget	
Transit Operating Costs	
Wages: Driver/Dispatcher	\$96,000
Fringe Benefits	\$20,000
Materials and Supplies	\$23,000
Services	\$1,000
Purchased Transportation	-
Insurance	\$8,000
Utilities	\$8,000
Licenses/Taxes	\$1,000
Other Misc.	\$10,000
Operating Sub-total	\$167,000
Transit Administrative Costs	
Wages	\$23,000
Fringe Benefits	\$9,000
Services	-
Materials and Supplies	\$1,000
Insurance	\$6,000
Lease	\$2,000
Other Misc.	\$2,000
Administrative Sub-total	\$43,000
Transit Capital Expenditures	\$51,000
Total Expenses	\$261,000
Surplus	\$3,000

Performance Measures

Various performance measures are utilized in understanding the operation of transit systems. These measures can be used as assessments of how well resources are being used and whether the services are cost-effective. The following measures have been calculated for the Outback Express services for 2002 (where data was available, comparison figures shown for 1999). Note that 2002 population estimates* are based on county trends between 2000 census data and 2010 projections.

Cost per Operating Hour is the total annual operating and administrative cost divided by the annual revenue-hours.

$$\begin{array}{l} 2002 \quad \$210,000 / 11,380 = \$18.45 / \text{hour} \\ 1999 \quad \$24.19 / \text{hour} \end{array}$$

Passengers per Operating Hour is the annual number of passengers divided by the annual revenue-hours

$$\begin{array}{l} 2002 \quad 58,279 / 11,380 = 5.12 \text{ passengers / hour} \\ 1999 \quad 7.6 \text{ passengers / hour} \end{array}$$

Cost per Passenger-trip is the total annual operating and administrative cost divided by number of passenger trips.

$$\begin{array}{l} 2002 \quad \$210,000 / 58,279 = \$3.60 / \text{hour} \\ 1999 \quad \$3.18 / \text{hour} \end{array}$$

Subsidy per passenger-trip is the number obtained by subtracting the farebox revenue from the total operating cost and then dividing the result by the number of passenger trips.

2002	$\$167,000 - \$3,000 = \$164,000$	$\$164,000 / 58,279 = \$2.81 / \text{hour}$
1999	$\$3.12 / \text{hour}$	

Farebox Recovery is the amount of farebox revenues divided by the total operating cost.

2002	$\$3,000 / \$167,000 = 2 \%$
1999	2 %

Percent of Estimated Need Met is calculated by dividing the total annual passenger-trips by the estimated annual need for transit.

2002	$58,279 / 81,959 = 71 \%$
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Vehicles Per Capita* is the total number of operational vehicles in the Region divided by the total population.

2002	$19 / 38,307 = 0.0005 \text{ vehicles per capita}$
------	--

Ridership Per Capita* is the annual number of passengers divided by the population.

2002	$58,279 / 38,307 = 1.52 \text{ riders per capita}$
------	--

Cost Per Capita* is the total operating and administrative cost for the Region divided by the population.

2002	$\$210,000 / 38,307 = \5.48 per capita
------	--

NECALG Transit

This section discusses existing transit providers in Logan, Morgan, Phillips, Sedgwick, Washington, and Yuma counties, including public, private, and non-profit providers. In addition to a profile of the services provided, an analysis of the cost effectiveness and service efficiencies will be presented for the primary service provider, County Express. The following agencies will be highlighted:

- County Express
- Residential Elderly Providers
 - Hillcrest and The Towers
 - Sterling Living Center
 - Sunset Manor
 - Valley View Villa
 - Yuma Life Care
- Developmentally Disabled/Early Childhood Programs
 - Eastern Colorado Services
 - Brush Head Start
 - Iliff Community Center Head Start Program
 - RE-3 School District Head Start/Colorado Preschool

- Intercity Providers
 - Dashabout Shuttle
 - Greyhound Lines

Existing Transit Services

County Express

Northeastern Colorado Transportation Authority (NECTA) began providing transit services on June 1, 1981. NECTA was expanded from the 55 Plus transportation program funded by the Area Agency on Aging for senior citizens. NECTA began doing business as County Express and provided 46,543 passenger trips during its first full year of operation. By 1996, the number of trips had more than doubled to 109,000. However, in 1997, NECTA ended the calendar year with a \$79,000 deficit. In the first four months of 1998, the administrative staff of NECTA struggled to pay bills and operate the transit system. By June 1998, it was clear to the Board of Directors of NECTA that major changes in administration and operation had to occur if public transportation was going to survive in Northeastern Colorado.

In August 1998, operation and administration of County Express was transferred to NECALG. The first order of business for the new NECALG administration was to secure funding from the Colorado Department of Local Affairs, increase the local commitment of the six counties involved, and secure new funding from the Temporary Assistance for Needy Families (TANF) in support of public transportation.

To achieve financial stability, several management actions were taken. Fares were increased and vehicles that were in poor mechanical condition were pulled from service. Trips to isolated areas of each county or trips with less than five passengers were curtailed. As a result, ridership decreased from the highest level achieved in 1996, 109,000 to 76,730 in 1999. The community accepted these changes as opposed to the alternative of turning the system over to the individual counties. This would have resulted in limited local service based on the revenues available from individual county budgets.

In 2001, NECALG worked with Banner Health Systems to provide non emergent medical transportation to Banner Health facilities. That three-year contract ends in 2004 and the contract is being re-negotiated. As the Banner Health contract is negotiated, it appears that the program will change to include some "co-pay" from the client. It may be necessary to leverage a variety of community resources to provide non emergent medical transportation of dialysis treatment in Sterling. (In 2003, trips provided to Hospital Based Services by HealthRide totaled 3,107. This represents 3.77% of the total ridership of 82,360. The number of miles driven for Banner HealthRide totaled 227,601 or 34.16% of the total miles (666,253) driven by County Express.)

In 2002, NECALG formed a partnership with Medicaid to serve as broker for the five counties in northeastern Colorado for non emergent medical transportation reimbursed by Medicaid. This has generated sufficient resources to pay the actual cost of providing transportation over the 9,600 square miles of Northeastern Colorado. In July of 2003, the State of Colorado cut funding for this program. This has created a concern as to how NECALG will be able to continue to provide one of its highest transportation priorities; non emergent medical transportation.

In 2004, NECALG responded to the need to expand hours for work related trips by applying for a \$120,000 Job Access Reverse Commute program. This would be \$60,000 of FTA Section 5309 discretionary funds that would require a non-federal match of \$60,000. TANF funding is eligible as a match for these 5309 funds.

County Express is a demand responsive transit system. It operates Monday through Friday from 7:00 am until 6:00 pm 52 weeks per year. Expanded service hours exist in Sterling for dialysis related trips. Only non emergent medical trips are scheduled on Saturdays and designated Federal holidays. All trips are coordinated with a dispatch center. These are located in Fort Morgan, Sterling, Akron and Yuma. Trips outside the normal operating hours are scheduled only if the trip pays for itself though fares or contracts and if a driver is available to make the run without incurring overtime pay.

While County Express has some vans without wheelchair lifts, a vehicle with a lift is available in each county and is dispatched on request. Vehicles are marked "County Express Public Transportation." Those vehicles assigned to the Banner health Contract are marked as "Health Ride" and include an "866" telephone number for making reservations.

NECALG promotes its service as a general public transportation system, stressing its ability to handle disabled persons. NECALG provides brochures, news releases and general information to newspapers and radio stations in the region and promotes public transportation through monthly radio broadcasts in the area, County Fairs and business expos. Upon request, NECALG staff provides programs on public transportation to social and service clubs in the area.

A \$2.00 fare is charged per one-way trip within any community in the region. Fares for intercity or regional trips are higher and are based on the distance traveled. Generally, the charge is \$.65 per mile with the total vehicle charge divided by the number of passengers making that particular trip. Out of town trips to the Front Range are \$1.00 per mile divided by the number of passengers.

The primary riders groups of County Express are the elderly, disabled, transit dependent populations and the general public. Many trips are made for scheduled dialysis treatment and for school children. Parents may purchase a monthly pass. All six counties have scheduled transportation to nutrition site meals.

Elderly passengers may purchase discounted senior ticket books through senior programs. In the larger towns, passes for students may be purchased for \$70 to \$90 per month per student in town, or \$90 -\$150 for a family. Medicaid trips within a community are reimbursed at the rate of \$8.06 for a one-way trip if the person is ambulatory. If a wheelchair is required, the base rate is \$.52 per mile or \$12.91 one-way. If the trip is scheduled for a Medicaid eligible rider, the round trip fares are \$125 one-way between Sterling/Denver, \$183 one-way between Julesburg/Denver and \$63 one-way between Sterling/Greeley.

- Thirty-five vehicles are assigned to daily service: Eleven vehicles provide backup to these daily service routes.
- Fifteen vehicles are assigned to Fort Morgan. They provide daily trips between Fort Morgan and Brush and Fort Morgan and Weldona as well as local trips to senior meal sites. Two vehicles make daily trips to the Front Range. Service is also provided to local dialysis centers. There are numerous school trips provided.
- Eleven vehicles are assigned to Sterling. Local service for school children and seniors to meal sites are provided as well as trips to the Front Range. Two dispatchers are responsible for billing and Medicaid payments in addition to scheduling trips.
- Six vehicles are assigned to Yuma. In addition to providing local service, trips to Fort Morgan and the Front Range are scheduled. Service to the neighboring Lone Star Public School District is provided Tuesday through Friday with fares paid by parents of the school children.
- Four vehicles assigned to Wray are used for daily transportation around the town. In addition, service is provided from Wray to the Idalia school district Monday through Friday with fares paid by parents.

- Three vehicles assigned to Akron are used for transportation around town, to dialysis treatments, to shopping and "meet and eat" events.
- The remaining seven vehicles are in service in Haxtun, Holyoke and Julesburg. In addition to providing local service, trips are made between larger towns in the region and to the Front Range.

Overall operations staff includes one full time operations/maintenance supervisor and one part-time administrative supervisor. There is one dispatch center in the area that is operated under contract. That center is located in Akron (Washington County). There are three additional dispatch centers operated in NECALG facilities located in Fort Morgan, Sterling and Yuma. In total, there are five full time dispatchers at NECALG facilities. In some instances, the dispatchers serve as drivers and provide billing services. Average driving staff is 13 full-time and 28 part-time drivers.

Other Specialized Service Providers

Several local assisted living and nursing homes provide transportation to their residents. These services are often coordinated with special trips by County Express.

Sterling Living Center

Located in Sterling, transportation is provided for health and medical reasons only. It is particularly difficult to schedule transportation for dialysis residents who sometimes have appointments scheduled later in the day or on Saturdays. County Express has expanded their hours to serve the needs on Saturday.

Hillcrest and the Towers

This Center, located in Wray, uses one van for activities; County Express is used for other transportation.

Sunset Manor

Located in Brush, there are four vehicles used by this facility to provide transportation for their residents. Service is generally scheduled for Monday through Friday, 8:00 a.m. to 4:00 p.m. No fare or donation is accepted. Trips are about equally divided between health and medical trips and trips for other senior services. It is estimated that the vehicles travel an average of 20,000 miles per year. While the majority of trips remain in Brush, there are frequent trips to Fort Morgan and Denver.

Residents often rely on the services of County Express to attend senior events.

Valley View Villa

Located in Fort Morgan, this facility uses one vehicle to provide trips to Greeley to the west and Sterling to the east. Service is limited to nursing home residents. The majority of trips are taken in the morning, with destinations at the hospital, doctor's office, and shopping.

Yuma Life Center

Located in Yuma, this facility uses one vehicle; this demand responsive service is available only to Yuma Life Care residents. At least 25% require assistance boarding the vehicle and 25 % use a wheelchair or walker. County Express Public Transportation is used for most medical trips, especially when Medicaid payment is anticipated. Larger groups are also scheduled on County Express.

Eastern Colorado Services

Located in Sterling, this agency provides transportation for adults with developmental disabilities in ten eastern counties. In addition to operating 32 passenger vehicles using non-transportation staff as drivers, the program has clients who arrange for their own transportation. Service is limited to persons with a physical, mental, or cognitive disability. Clients are also low income. Destinations are multipurpose including health/medical, social services, recreation, education and training, employment and other services. The busiest hours of service are 6:30 to 8:30 a.m. and again from 2:00 to 6:00 p.m.

No exact budget information is available for this service. However, it is estimated that direct operating expenses for this service are \$212,000 annually.

Eastern Colorado Services has a contractual relationship to provide transportation for clients to get to work and return home. Addition of citywide scheduled bus service in Sterling would be of significant advantage for this program.

Brush Head Start

Located in Brush, this federally subsidized program uses two school buses to provide service from the Brush community to the Head Start Program facility in Brush. Trips are limited to Head Start children and their families and are provided between 7:30 a.m. and 3:30 p.m. Monday through Friday.

Iliff Community Center Head Start Program

Located in Iliff, this federally subsidized program provides transportation to the Community Center in Iliff from the towns of Sterling, Padroni, Proctor and Iliff. Three vehicles travel an average of 117 miles per day, Monday through Thursday. Vehicles are used on a limited basis to take students to doctor's offices. The estimated cost to provide this transportation service is \$14,742 annually.

The Head Start families are often transit dependent and would make use of local transportation for a variety of trips.

RE-3 School District Head Start/Colorado Preschool

Located in Fort Morgan, this facility has six vehicles that provide transportation for a group of 3 to 5 year old children participating in the Head Start Program. Teaching and Administrative Staff, along with their other job responsibilities, also drive vehicles. It is estimated that \$36,000 is spent on operating costs annually.

Intercity Providers

Dashabout

Dashabout Roadrunner is a for-hire motor carrier operating fixed route schedule service under authority of the Colorado Public Utilities Commission. Service is provided in both the NECALG and ECCOG areas. The Roadrunner specializes in scheduled, fixed route, and intercity rural passenger service with urban and resort connections.

Dashabout provides scheduled daily trips on routes following I-76, US 34, US 36, and I-70. Destinations include Denver, Colorado Springs, Boulder, Greeley, Fort Collins, Blackhawk/Central City, Limon and the ski resorts of Vail and Summit County. The Roadrunner also connects to Nebraska cities, specifically Sidney, North Platte, Imperial, McCook, and Omaha.

The Roadrunner service links all urban bus terminals, Amtrak stations, and airports in Lincoln, Omaha, DIA, and Colorado Springs. Taxi service within the City of Sterling is provided 9:00 a.m. to 5:00 p.m. each day year round.

It is estimated that over 60 percent of the trips are for older adults. Trips are primarily for recreation, medical, business, and social purposes. Top priorities for changes to service include additional early afternoon departures, increased driver pay and training. There have been discussions concerning the possibility of coordinating Dashabout trips with regional trips made by both County Express and Outback Express in the ECCOG area.

Greyhound

Greyhound Lines provides daily round trips westbound to the Denver area. Departures from Sterling are 5:55 a.m., 1:55 p.m. and 5:55 p.m. The one-way travel time from Sterling is between 2 hours and 15 minutes and 2 hours and 25 minutes to the Greyhound Terminal in downtown Denver. The one-way fare is currently \$23.00, up from \$20.50 in 2000. A round-trip ticket currently costs \$41.50, up from \$38.00 in 2001.

Evaluation of Service Efficiencies

Ridership/Vehicle Miles/Vehicle Hours

Operating information for NECALG's County Express services is reported for the years 1998 to 2002 in Table 2-6. Ridership for the entire system declined 7.7 percent from 85,120 passengers in 1998 to 78,580 in 2002. However, the ridership has been relatively stable since the community's decision to apply much stricter financial control over the transit operations in 1998. The largest decrease in ridership occurred in the transitional year 1998. In 1998, ridership dropped 19% from 1997 with vehicle hours also down 14%. Once again, the decision of the community was to continue service under strict financial control in order to regain economic stability. Operations had begun to stabilize by the end of 1999. Rider and trip details are shown in Table 2-7.

County Express realized a great increase in vehicle miles in 2002 (up 22% over the previous high year of 2000). The increases in vehicle hours and miles are greatly outpacing the actual decrease in ridership. The Board of Directors of County Express is attempting to address this in part by initiating a marketing analysis and program in the spring of 2004.

Table 2-6 County Express Operating Information							
	1998	1999	2000	2001	2002	1998-2000 Absolute Change	1998-2002 Percent Change
Ridership	85,120	76,730	88,353	79,133	78,580	-6,540	-7.7%
Vehicle Hours	30,845	28,210	36,313	34,343	35,192	4,347	14.1%
Vehicle Miles	396,846	345,357	468,875	465,164	570,467	173,621	43.8%
Op. Exp. (\$)	424,391	481,999	544,472	613,666	515,578	\$ 91,187	21.5%
Adm. Exp. (\$)	181,882	236,314	178,581	146,264	186,193	\$ 4,311	2.4%

Table 2-7 County Express Riders and Trip Purposes	
It is estimated that riders can be identified with the following groups:	
Non Disabled, Over 60	30%
Disabled, Over 60	7%
Disabled, Under 60	3%
General Public	60%
Trip purposes are estimated as follows:	
To medical sites	11%
To nutrition sites	3%
To employment/education	25%
To shopping/personal business	6%
To social/recreational	5%
To other undesignated sites	50%
Source: FORM C 2002 Performance Report for FTA Section 5310 & 5311 Recipients	

County Express Vehicle Inventory/Fleet Utility

The system fleet includes 46 vehicles (Table 2-8). Thirty-five of these vehicles are assigned to daily service, with eleven vehicles available for back up. The average fleet vehicle was manufactured in 1993, is seven years old and has an average mileage of 133,941.

For the vehicles assigned to daily service, ten vehicles are assigned to Fort Morgan, six to Sterling, four to Yuma, three to Wray, two to Julesburg and one each to Akron, Haxtun and Holyoke. The average year of manufacture for vehicles being used for daily service is 1995 and has an average mileage of 91,831 miles.

Vehicles used for backup are assigned throughout the system. The average year of manufacture for this group of vehicles is 1986 with an average mileage of 132,061.

Table 2-8 NECALG Primary Fleet Vehicle Utility - 2002				
35 Vehicles		Yearly per Vehicle	Monthly per Vehicle	Weekly per Vehicle
Vehicle Hours	35,192	1,005	84	19
Vehicle Miles	570,467	16,299	1,358	313
11 vehicles provide part time and back-up service for the fleet.				

As mentioned previously, FTA Service Life Policy establishes normal service lives for buses and vans used in transit service. These policies are meant to ensure that buses purchased or leased with federal funds are maintained and remain in transit use for a minimum normal service life. While not directly applicable to the portion of the fleet, purchased with local funds, this policy does establish a point of reference for use of these vehicles.

The expected service life for light duty vehicles such as small buses and regular and specialized vans is 5 years or 100,000 miles/20,000 per year. County Express annual mileage of 16,299 per vehicle would be slightly below this anticipated average.

Another factor used to establish vehicle utility is the Spare Ratio Policy. Spare ratio is defined as the number of spare vehicles divided by the vehicles required for annual maximum service. Spare ratio is

usually expressed as a percentage, e.g. 100 vehicles required and 20 spare vehicles is a 20 percent spare ratio.

The standard spare ratio for larger active fleets, 50 or more revenue vehicles, should not exceed 20 percent of the number of vehicles operated in maximum service. Due to the wide area covered by County Express, it would be anticipated that the ratio would be higher. The spare ratio for the County Express fleet is: 5 backup vehicles/41 full and part-time service vehicles = 12% spare ratio

Based on these factors, the fleet utility for County Express is well within standards.

The age of the fleet, particularly the backup and part-time fleet should be addressed. The average vehicle in the full-time fleet was manufactured 1998, or 6 years old. The average vehicle in the backup and part-time fleet was manufactured in 1992 and is 12 years old. These older vehicles will be more expensive to maintain and will provide marginal utility.

All Vehicles in the fleet are gasoline powered and none of them have been rehabilitated. Vehicle details are shown in table 2-9.

Table 2-9 County Express Vehicle Inventory (as of November 2003)													
Make/Model	Year	Vin L-4	Own By	Price	Fund By	Sta-tus	Usage	Mileage	Seat #	Wheel Chair	Cond.	Retir .	Repl. Cost
Dodge Sed.	91	0013	0		Local	FT 1	R/GP	187,930	5	0	V. Poor	06	5
Dodge VC	01	5501	FTA	46	Local	FT 2	R/ED	24,777	10	1	Exc.	01	42
Ford Goshen	01	8617	FTA	44	5310	FT 3	R/ED	61,797	12	2	Fair	12	45
Ford Goshen	86	7712	FTA	33	5310	FT 4	R/ED	269,392	10	1	V. Poor	03	45
Ford Astra	94	5004	0	17	Local	FT 5	R/GP	247,861	7	0	Fair	03	35
Dodge Rio	99	2335	0	33	Local	FT 6	R/ED	78,549	4	1	Fair	05	40
Ford Supr.	94	4008	FTA	36	Local	FT 7	R/ED	97,050	10	2	Fair	05	45
Dodge Car.	98	0876	0	16	Local	FT 8	R/GP	158,569	5	0	Poor	05	35
Ford WA4	86	6985	FTA	24	5311	BU	R/GP	122,394	16	0	V. Poor	04	45
Chev. Lum.	95	0477	0	16	Local	FT 9	R/GP	240,909	7	0	V. Poor	03	35
Dodge Car.	01	1516	FTA	22	5309	FT 10	R/GP	60,227	7	0	Good	06	35
Chev. Lum.	95	8886	0	16	Local	FT 11	R/GP	197,736	7	0	V. Poor1	03	35
Ford WA4	85	5840	FTA	12	5310	PT	R/ED	166,224	12	2	Fair	03	45
Ford WA4	88	3149	FTA	27	5310	PT	R/ED	177,238	12	2	V. Poor	05	45
Ford Supr.	91	4334	FTA	32	5311	FT 12	R/ED	184,917	8	1	V. Poor	04	45

Table 2-9 County Express Vehicle Inventory (as of November 2003)													
Make/Model	Year	Vin L-4	Own By	Price	Fund By	Status	Usage	Mileage	Seat #	Wheel Chair	Cond.	Retir .	Repl. Cost
Ford WA4	95	5341	FTA	34	5310	BU	R/ED	157,151	14	1	V. Poor	04	45
Ford Supr.	95	2069	FTA	40	5310	PT	R/ED	146,881	12	2	V. Poor	05	45
Ford Dia.	88	6913	0	4	Local	BU	R/GP	204,168	24	0	V. Poor	06	47
Dodge Car.	01	1517	FTA	22	5309	FT 13	R/GP	83,800	7	0	Good	06	35
Dodge Car.	01	1518	FTA	22	5309	FT 14	R/GP	69,402	7	0	Good	06	35
Ford Supr.	96	4339	FTA	44	5310	FT 15	R/ED	121,994	16	3	Fair	07	49
Dodge Car.	95	3102	0	14	Local	PT	R/GP	167,418	5	0	Fair	03	35
Ford Supr.	97	2936	FTA	45	5310	FT 16	R/ED	77,416	16	2	Fair	04	45
Ford DIA	90	6639	0	6	Local	BU	R/ED	108,144	16	2	Poor	05	45
Dodge PV	99	3712	FTA	25	5309	PT	R/GP	46,553	8	0	Good	06	35
Ford PV	99	5675	FTA	27	5309	PT	R/GP	41,742	8	0	Good	09	35
Ford PV	99	3259	FTA	30	5309	FT 17	R/GP	58,988	78	0	Good	09	35
Ford PV	99	3260	FTA	30	5309	FT 18	R/GP	66,629	8	0	Good	09	35
Ford PV	99	2161	FTA	30	5309	FT 19	R/GP	77,511	8	0	Good	09	35
Ford DIA	99	8955	FTA	41	5311	FT 20	R/ED	33,935	12	2	Good	10	45
Ford DIA	99	5724	FTA	42	5309	FT 21	R/ED	71,675	12	2	Good	10	45
Dodge VC	00	9581	FTA	45	5310	FT 22	R/ED	72,712	10	1	Good	10	45
Dodge VC	01	9582	FTA	45	5310	FT 23	R/ED	43,405	10	1	Exc.	10	45
Chev. Lum.	95	4252	0	10	Local	BU	R/GP	114,753	7	0	V. Poor	04	35
Pont. MV	98	7084	0	19	Local	FT 24	R/GP	120,152	7	0	Fair	08	35
Dodge Car.	01	1513	FTA	22	5309	FT 25	R/GP	86,111	7	0	Good	06	35
Dodge Car.	01	1514	FTA	22	5309	FT 26	R/GP	87,597	7	0	Good	06	35
Dodge Car.	01	1515	FTA	22	5309	FT 27	R/GP	79,690	7	0	Good	05	35
Dodge VC	01	7462	FTA	42	5310	FT 28	R/ED	59,074	10	1	Exc.	07	45
Ford VC	01	8635	FTA	44	5309	FT 29	R/ED	22,253	14	2	Exc.	10	47

Table 2-9 County Express Vehicle Inventory (as of November 2003)													
Make/Model	Year	Vin L-4	Own By	Price	Fund By	Status	Usage	Mileage	Seat #	Wheel Chair	Cond.	Retir .	Repl. Cost
Ford Goshen	02	5071	FTA	39	5309	FT 30	R/ED	26,453	10	2	Exc.	10	45
Ford Goshen	02	5078	FTA	39	5310	FT 31	R/ED	6,183	10	2	Exc.	10	45
Pont PV	03	1594	FTA	28	5309	FT 32	R/GP	17,264	7	0	Exc.	10	35
Ford VC	02	3311	FTA	38	5310	FT 33	R/ED	24,218	10	1	Exc.	10	45
Ford VC	02	7894	FTA	38	5309	FT 34	R/ED	7,510	10	1	Exc.	10	45
Chev. Lum.	95	5589	0	4	Local	FT 35	Maint.	90,272	NA	0	Fair	06	6

Financial Analysis

2002 Operating Budget

The 2002 Operating, Administrative, and Capital Budgets are shown in Table 2-10 on the following page. Total Revenue is \$902,000. Farebox and donations provide 15% of operating expenses with federal funding contributing 40%. Title III and Medicaid provide revenues of 3% and 22% respectively. Local counties and in-kind contributions account for 13% of the overall funding.

In terms of management, the Executive Director of NECALG serves as the part-time Director of County Express. One part-time Administrative/Supervisor provides oversight for the dispatch and driver staff. One full-time Administrative Assistant supports County Express operations including all accounts payable functions. A part-time Finance Officer provides accounting assistance. This is in addition to the operations staff with one full time Operations/Maintenance Supervisor, one part-time Administrative Supervisor, five full time dispatchers and one contract dispatcher. In several instances, dispatchers also fill in as drivers. When fully staffed, County Express employs thirteen full-time and twenty-eight part-time bus drivers.

Table 2-10 County Express 2002 Financial Budget	
Transit Revenues	
Fare/Donations	\$131,000
FTA 5309	\$86,000
FTA 5310	\$71,000
FTA 5311	\$201,000
Title III	\$23,000
Medicaid	\$202,000
County Contributions	\$105,000
Municipal Contributions	\$16,000
TANF	\$55,000
United Way	\$3,000
Foundations	\$9,000
Total Revenues	\$902,000
Transit Operating Costs	
Wages: Driver/Dispatcher	\$290,000
Supervisor	\$60,000

Table 2-10 County Express 2002 Financial Budget	
Fringe Benefits	\$60,000
Services	\$46,000
Materials and Supplies	\$46,000
Utilities	\$10,000
Purchased Transportation	\$1,000
Insurance	\$43,000
Rentals/Leases	\$1,000
Operating Sub-total	\$517,000
Transit Administrative Costs	
Wages	\$123,000
Fringe Benefits	\$25,000
Services	\$16,000
Materials and Supplies	\$8,000
Utilities	\$6,000
Lease/Rent	\$5,000
Other Misc.	\$3,000
Administrative Sub-total	\$186,000
Transit Capital Expenditures	\$199,000
Total Expenses	\$902,000

Performance Measures

Various performance measures are utilized in understanding the operation of transit systems. These measures can be used as assessments of how well resources are being used and whether the services are cost-effective. The following performance measures have been calculated for the County Express services for 2002 (where data was available, comparison figures are shown for 1999). Note that * 2002 population estimate is based on county population trends between 2000 census data and 2010 projections.

Cost per Operating Hour is the total annual operating and administrative cost divided by the annual revenue-hours.

$$\begin{array}{l} 2002 \quad \$703,000 / 35,192 \text{ hours} = \$19.98 / \text{hour} \\ 1999 \quad \$25.31 / \text{hour} \end{array}$$

Passengers per Operating Hour is the annual number of passengers divided by the annual revenue-hours.

$$\begin{array}{l} 2002 \quad 78,580 / 35,192 = 2.23 \text{ passengers / hour} \\ 1999 \quad 2.7 \text{ passengers / hour} \end{array}$$

Cost per Passenger-trip is the total annual operating and administrative cost divided by number of passenger trips.

$$\begin{array}{l} 2002 \quad \$703,000 / 78,580 = \$8.95 / \text{passenger trip} \\ 1999 \quad \$9.31 / \text{passenger trip} \end{array}$$

Subsidy per passenger-trip is the number obtained by subtracting the farebox revenue from the total operating cost and then dividing the result by the number of passenger trips.

$$\begin{array}{l} 2002 \quad \$517,000 - \$131,000 = \$386,000 \quad \$386,000 / 78,580 = \$4.91 / \text{passenger trip} \\ 1999 \quad \$6.56 / \text{pass. Trip} \end{array}$$

Farebox Recovery is the amount of farebox revenues divided by the total operating cost.

$$\begin{array}{l} 2002 \quad \$131,000 / \$517,000 = 25.3\% \\ 1999 \quad 15\% \end{array}$$

Percent of Estimated Need Met is calculated by dividing the total annual passenger-trips by the estimated annual need for transit.

$$2002 \quad 78,580 / 167,276 = 47\%$$

Vehicles Per Capita* is the total number of operational vehicles in the Region divided by the total population.

$$2002 \quad 46 / 72,004 = 0.00064 \text{ vehicles per capita}$$

Ridership Per Capita* is the annual number of passengers divided by the population

$$2002 \quad 78,580 / 72,004 = 1.09 \text{ riders per capita}$$

Cost Per Capita* is the total operating and administrative cost for the Region divided by the population.

$$2002 \quad \$703,000 / 72,004 = \$9.76 / \text{capita}$$

CHAPTER 3: SOCIOECONOMIC PROFILE

For the Transit Element, Morgan County is added to the Eastern TPR instead of being included in the Upper Front Range TPR's Transit Element. Data in this Chapter of the Transit Element will include data for Morgan County and will vary slightly from the data in the Eastern TPR 2030 Transportation Plan that only includes data for the nine counties in the Eastern TPR. The Eastern Colorado Planning Region, located on the eastern plains of the state, consists of Cheyenne, Elbert, Kit Carson, Lincoln, Logan, Phillips, Sedgwick, Washington, and Yuma counties. The region's 16,341 square miles make it larger than 10 states in the country (including the District of Columbia). The unpopulated publicly owned land shown on Exhibit 3.1 Public Lands highlights the low population density of this region.

The significant portion of land in the region's counties that is devoted to agriculture accounts for the region's strong tie to the land. In eight of the nine counties of the region, 80 to 90 percent of the land is in the farming or ranching sector. The transportation aspects of this economic sector include trucks, a heavy reliance on rail, and agriculturally oriented vehicles. Agriculture has long been a part of Eastern Colorado's culture and economy and is a sector of the economy that the residents value and wish to preserve. Because of the distances between farms and ranches, and the service centers such as Limon, Burlington, Sterling, and Fort Morgan the single occupant vehicle is essential to the agricultural industry.

The towns of the region with the largest populations are Sterling, Fort Morgan, Burlington, and Yuma. Scattered throughout the region are incorporated and unincorporated towns with smaller populations. In Elbert, Washington, and Yuma counties the unincorporated areas have higher populations than the largest towns in each county.

Population

Distribution and Density

As shown in Table 3.1, the average population density of the region is 6.1 persons per square mile. This density figure is somewhat misleading given all the public lands in the region. Various land limitations or uses render many other lands as non-developable as well. Low densities in rural regions tend to promote a continued reliance on single occupancy vehicles for transportation.

County	2000 Population	Land Area (square miles)	Density Per square mile
Cheyenne	2,231	1,781	1.3
Elbert	19,872	1,851	10.7
Kit Carson	8,011	2,161	3.7
Lincoln	6,087	2,586	2.4
Logan	20,504	1,839	11.2
Morgan	27,171	1,285	21.1

Table 3.1 Population Density by County

County	2000 Population	Land Area (square miles)	Density Per square mile
Phillips	4,480	688	6.5
Sedgwick	2,747	548	5.0
Washington	4,926	2,521	2.0
Yuma	9,841	2,366	4.2
Total	107,870	17,626	6.1
State	4,301,261	103,717.53	41.5

Source: Colorado State Demographer

As demonstrated in the chart above (Exhibit 3.2), Elbert, Morgan and Logan Counties will experience the most dramatic growth in the next 25 years with 191 percent, 76 percent and 58 percent, respectively. The other counties appear to be regionally overshadowed by these three counties.

Exhibit 3-2 Regional Share of Population Growth 2000 and 2030

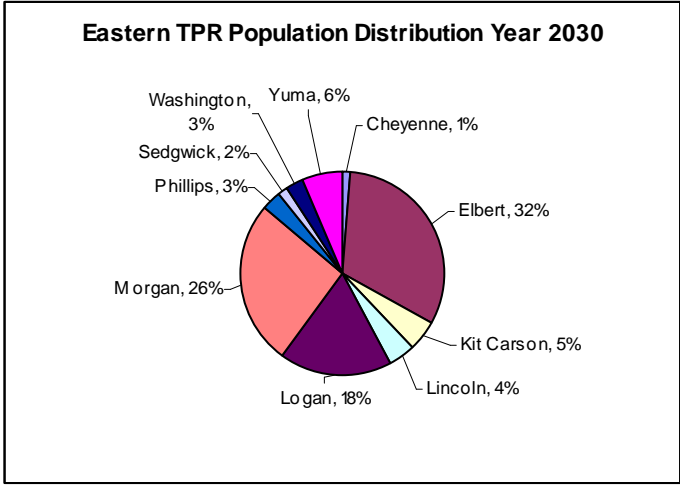
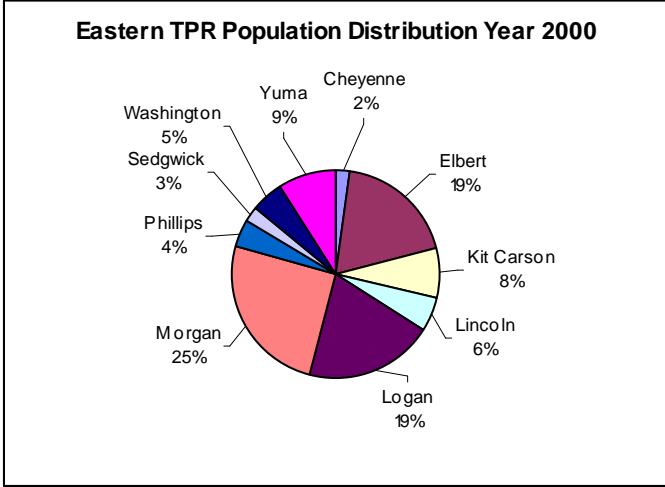
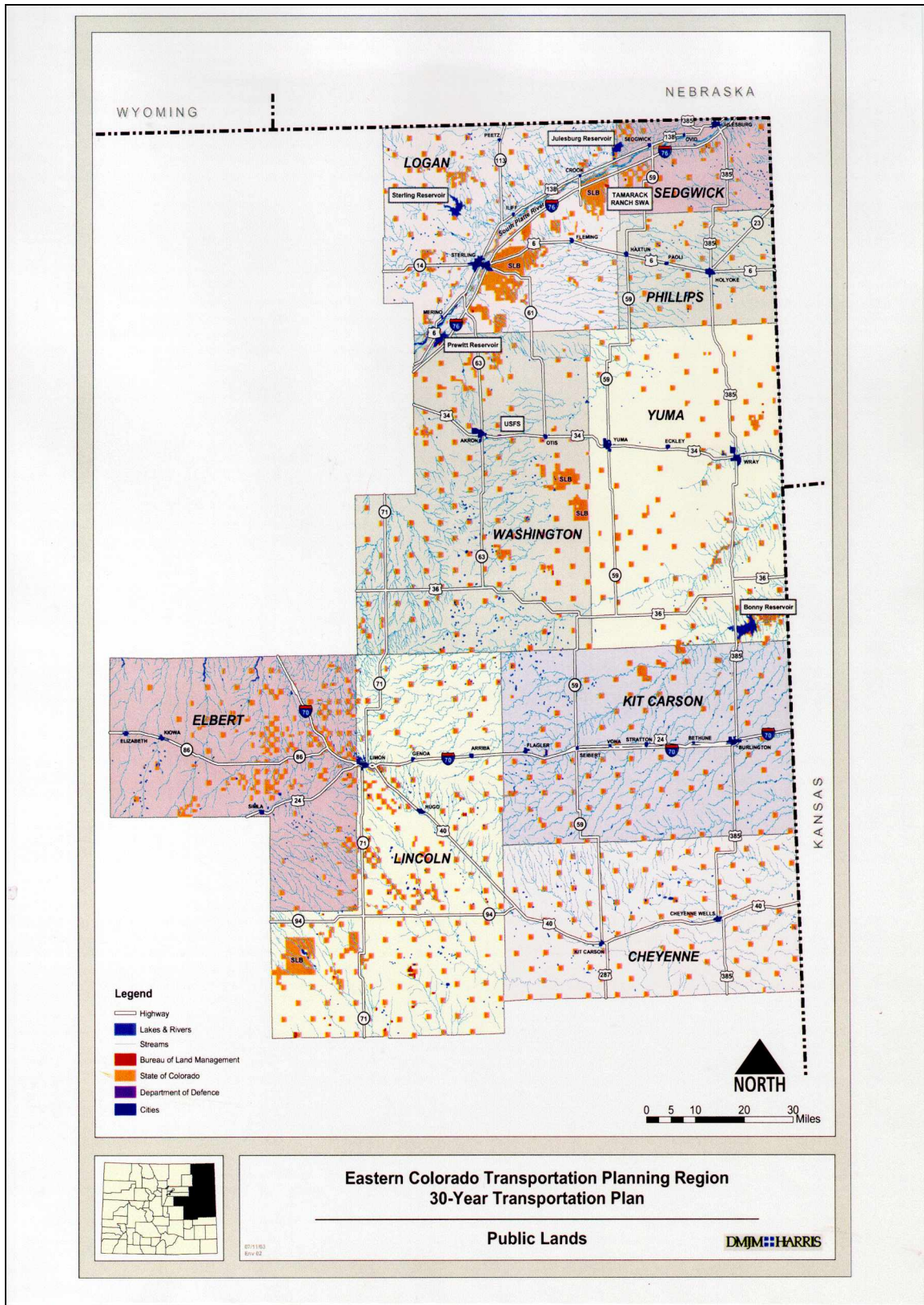


Exhibit 3-1 Public Lands



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According to the State Demographer, the population of these ten counties of Eastern Colorado is anticipated to reach 183,528 residents by the year 2030 (Table 3-2). This figure represents a 72 percent increase in population from the year 2000. Population growth in Elbert, Morgan and Logan counties will outpace the rest of the region (by absolute number and by percentage growth) from 2000 to the year 2030.

Table 3-2 Population Projections							
County	1990	2000	2010	2020	2030	Absolute Change 2000-2030	% Change 2000-2030
Cheyenne	2,397	2,230	2,064	1,969	1,881	-349	-19%
Elbert	9,646	20,188	28,333	42,589	58,759	38,571	191%
Kit Carson	7,140	8,012	8,387	8,980	9,417	1,405	18%
Lincoln	4,529	6,170	6,352	6,829	7,324	1,154	19%
Logan	17,567	20,862	24,246	28,979	32,895	12,033	58%
Morgan	21,939	27,261	32,384	39,892	47,988	20,727	76%
Phillips	4,189	4,486	4,720	4,994	5,167	681	15%
Sedgwick	2,690	2,742	2,873	3,084	3,247	505	18%
Washington	4,812	4,920	4,929	5,056	5,176	256	5%
Yuma	8,954	9,853	10,380	11,120	11,674	1821	18%
Total	83,863	106,724	124,668	153,492	183,528	76,804	72%

Source: Colorado State Demographer

POPULATION BY AGE

Population data by age, from the 2000 census, is information is the best available. The population has been divided into four age groupings: 0-15 years, 16-44 years, 45-64 years and 65 years and older (Table 3-3). The 0-15 years age group represents those persons who are not currently calculated into the labor force. The 16-44 years age group represents those persons who are currently in the work force and who are likely to be in the work force in the year 2030. The age group of persons 45-64 years represents those persons who are currently in the workforce but will most likely be retired by the year 2020. The age category 65 years and above generally represents those who are currently retired.

Table 3-3 Population by Age (2000)												
County	Cheyenne	Elbert	Kit Carson	Lincoln	Logan	Morgan	Phillips	Sedgwick	Washington	Yuma	Total	% of Total
0-15 years	509	4,883	1,725	1,166	4,127	6,859	993	502	1,040	2,245	24,049	23%
16-44 years	877	8,737	3,336	2,729	8,959	11,381	1,626	950	1,797	3,798	44,190	42%
45-64 years	475	5,060	1,779	1,324	4,453	5,390	994	688	1,191	2,191	23,545	22%
65 years +	370	1,192	1,171	868	2,965	3,541	867	607	898	1,607	14,086	13%
Total	2,231	19,872	8,011	6,087	20,504	27,171	4,480	2,747	4,926	9,841	105,870	100%

Source: Colorado State Demographer

The population group over age 65 years is traditionally considered to have greater demand for public transportation, both because of physical limitations and because of economic needs that may prohibit some from having access to private automobiles. The year 2000 state average of population over age 65 is 9.7%. Eastern Colorado, at 13 percent, exceeds the state average. For planning purposes, the age category 45-64 years (22% in 1990) is of particular importance. This age group represents those persons who may be in

need of alternative modes of transportation in the next 20 or more years. As the population ages, the need for alternative transportation will increase at a proportionate rate. Counties experiencing a high demand, such as Elbert County, must pay particular attention to the age 45 to 64 group.

INCOME

Table 3-4 lists personal per capita income for the region for the years 1990 and 2000. Per capita income serves as a proxy for a measure of an area's economic well-being. Per capita income reveals that the region as a whole has not been experiencing the economic prosperity that the rest of the state has enjoyed since 1990. Elbert County has the highest per capita income of the region, and its 83 percent growth in income since 1990 far exceeds that of the state (62%). Lincoln and Morgan counties have the lowest per capita incomes of the region in 2000 at approximately \$15,500.

Table 3-4 Per Capita Income										
County	Cheyenne	Elbert	Kit Carson	Lincoln	Logan	Morgan	Phillips	Sedgwick	Washington	Yuma
1990	\$11,382	\$13,664	\$11,385	\$10,052	\$10,899	\$10,928	\$10,444	\$9,901	\$10,473	\$10,713
2000	\$17,850	\$24,960	\$16,964	\$15,510	\$16,721	\$15,492	\$16,394	\$16,125	\$17,788	\$16,005
Absolute Change	\$6,468	\$11,296	\$5,579	\$5,458	\$5,822	\$4,564	\$5,950	\$6,224	\$7,315	\$5,292
% Growth	57%	83%	49%	54%	53%	42%	57%	63%	70%	49%
STATE: 1990	\$14,821		Absolute Change		% Growth					
STATE: 2000	\$24,049		\$9,228		62%					

Source: Colorado State Demographer

Poverty status is another way of looking at travel demand. While the number of daily trips derives largely from income (higher income equals more trips per day), those in the lowest income groups, especially those below the poverty line, may not have access to private transportation. According to a recent CDOT survey, those in households with less than \$20,000 in annual income are more than twice as likely to depend on the bus to get to work as any other income group. Among households that do not own a vehicle, 34 percent have incomes less than \$20,000 (*Access to Transportation Outside the Mainstream*, CDOT 1998). The average poverty level for counties in Colorado is 12.5 percent. In Eastern Colorado, all the counties fall below that amount. It can be assumed that for at least some people below the poverty line, lack of access to transportation is a significant factor. Table 3-5 shows the percent of households without a vehicle and the percent of families in poverty for each county.

Table 3-5 Other Measures of Personal Income										
Other Measures	Cheyenne	Elbert	Kit Carson	Lincoln	Logan	Morgan	Phillips	Sedgwick	Washington	Yuma
Source: US Census 2000										
Households with no vehicle (percent)	7.2	2.1	6.8	4.4	5.7	3.1	5.2	4.5	3.0	4.6
Families in Poverty (percent)	8.7	2.5	9.4	8.1	9.0	8.5	8.8	7.8	8.6	8.8

HOUSING UNITS

The number of housing units by the municipalities in the region is listed in Table 3-6. Elbert, Morgan and Logan counties are experiencing the bulk of the increase in the housing stock for the region. The majority of the homes in these counties are being built in the unincorporated areas of the county.

The transportation implications of this are that there will be more traffic traveling to and from communities and towns. The commuting traffic, specifically along SH 86 and US 24 creates an additional strain on the transportation network. Transit opportunities are becoming a particular concern in Elbert County, where employees may live in the west area of the county and work in the Front Range. The interrelated elements of employee housing and employee transportation are becoming an important issue in the region.

Table 3-6 Housing Units By Municipality				
Location	2000	2001	2002	Absolute Increase 2000-2002
Cheyenne County				
Cheyenne Wells/CWM	505	508	512	7
Kit Carson	158	158	158	0
Unincorporated Area	442	442	442	0
Total	1,105	1,108	1,112	7
Elbert County				
Elizabeth/ElizPark	513	525	537	24
Kiowa	243	254	254	11
Simla	261	273	275	14
Unincorporated Area	6,096	6,380	6,669	573
Total	7,113	7,432	7,735	622
Kit Carson County				
Bethune	81	82	82	1
Burlington	1,430	1,443	1,454	24
Flager	319	332	332	13
Seibert	106	110	110	4
Stratton	359	360	363	4
Vona	53	53	53	0
Unincorporated Area	1,082	1,082	1,082	0
Total	3,430	3,462	3,476	46
Lincoln County				
Arriba	127	127	127	0
Genoa	84	85	85	1
Hugo	440	441	442	2
Limon	934	935	936	2
Unincorporated Area	821	827	832	9
Total	2,406	2,415	2,422	14
Logan County				
Crook	80	81	82	2
Fleming	198	202	206	8
Iliff	112	114	116	4
Merino	110	117	124	14

Table 3-6 Housing Units By Municipality				
Location	2000	2001	2002	Absolute Increase 2000-2002
Peetz	99	101	103	4
Sterling	5,171	5,210	5,217	46
Unincorporated Area	2,654	2,702	2,743	89
Total	8,424	8,527	8,591	167
Phillips County				
Haxtun	490	492	498	8
Holyoke	980	983	986	6
Paoli	24	24	24	0
Unincorporated Area	520	524	528	8
Total	2,014	2,023	2,036	22
Morgan				
Brush	1,923	1,944	1,957	34
Fort Morgan	4,094	4,106	4,116	22
Hillrose	111	113	115	4
Log Lane Village	324	326	326	2
Wiggins	279	284	286	7
Unincorporated Area	3,679	3,753	3,823	144
Total	10,410	10,526	10,623	213
Sedgwick County				
Julesburg	699	700	700	1
Ovid	178	179	180	2
Sedgwick	111	111	111	0
Unincorporated Area	399	401	402	3
Total	1,387	1,391	1,393	6
Washington County				
Akron	835	839	840	5
Otis	248	250	252	4
Unincorporated Area	1,224	1,234	1,241	17
Total	2,307	2,323	2,333	26
Yuma County				
Eckley	120	120	120	0
Wray	968	976	978	10
Yuma	1,393	1,402	1,411	18
Unincorporated Area	1,814	1,814	1,814	0
Total	4,295	4,312	4,323	28

Source: Colorado State Demographer

Employment

Employment in Eastern Colorado, as shown in Table 3-7 has been fairly steady since 1990 with low unemployment rates. The number of jobs has exceeded the number of employed persons in the region by a substantial amount (5,176 in 2000). The discrepancy can be explained by either multiple jobholders or by jobholders who reside in another county. There can be extreme fluctuations of employment within the

Region. An example is the recent reduction of workers at the EXCEL beef processing plant in Fort Morgan due to the "mad cow" scare in the Pacific Northwest.

Table 3-7 Employment Statistics			
County	2000	2010	2030
Cheyenne	1,054	1,491	1,358
Elbert	10,777	16,999	25,553
Kit Carson	3,665	4,778	5,637
Lincoln	2,476	3,407	4,534
Logan	9,393	13,870	25,058
Morgan	11,888	16,593	28,329
Phillips	1,981	2,679	3,338
Sedgwick	1,321	1,524	2,001
Washington	2,361	2,414	3,026
Yuma	4,803	5,809	7,123
Total Labor Force	49,719	69,564	105,957

Source: Colorado State Demographer

Summary

The population of the Eastern Colorado Transportation Planning Region is forecasted to 183,528 in the year 2030. While, it will remain a relatively sparsely populated region of the state, the added population will exert tremendous transportation related challenges to the region. The challenges will be to:

- provide affordable and accessible transportation for all segments of the population
- provide a transportation system that will meet the demands of the agricultural sector
- provide a transportation network for employees who will be commuting great distance to work
- provide a transportation system that will be consistent with the values of the region

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CHAPTER 4 TRANSIT DEMAND AND NEEDS ANALYSIS

Transit Demand Methodologies

There are several methods that have proven to be effective at projecting the demand for transit. These models use demographic data and trends to quantify the scope of present and future demand for transit services. For more detailed information on the methods that are available, please see Appendix A.

Of the eight transit demand methods reviewed, two were found to be of value for use in this study. The team used the following methods to estimate demand on a county-by-county and regional basis.

- * Survey Research Trip Method: Developed in 1992 for Mesa County, Colorado. It provides separate projections for general public, elderly, and mobility limited populations. Factors developed for this model reflect the rural/small town characteristics of study area.
- * Employee Transit Use Method: This model predicts only work trips. The model above is used to predict general demand or elderly/disabled demand. The employee data is available and the assumption was made that there are 2 daily work round trips on transit. This assumption can be adjusted if local data are available and indicate a significant difference from this assumption.

Detailed information, including formula, and calculations used to calculate the transit demand for the study area is found in Appendix C. Data is included in Appendix D. The latest detailed information available from the U.S. Census Bureau is from the 2000 census. Current and reliable estimates and projections of the data from other sources, including the Colorado Department of Local Affairs, were used in the model calculations. Tables 4-1, 4-2, and 4-3 are the summaries, by year, of the various methods used to calculate demand estimates for the general public, elderly, employment trips and those individuals with disabilities that limit their ability to "go outside the home", a term utilized in the 2000 census.

Transit Demand Estimates

Demand Estimates for the Year 2000

A quick review of Table 4-1, Demand Estimate for 2000, shows that, for the region, there is demand for approximately 249,000 annual one-way passenger trips. The county with the most one-way passenger trips is Morgan County with 61,918. Logan and Elbert Counties follow closely with 48,619 and 42,861 respectively. The fewest number of trips is in Cheyenne County with 5,462 one-way passenger trips in 2000.

This estimated demand is distributed throughout the two transit service areas as follows: for NECALG the total one-way passenger trips demand is projected to be approximately 167,000 and for ECCOG the projected demand is approximately 82,000.

Table 4 - 1 Demand Estimate for 2000: Annual One-Way Passenger Trips			
County	Survey Research Method	Employee Transit Use Method	Total Transit Demand
Logan	38,756	9,863	48,619
Morgan	49,436	12,482	61,918
Phillips	9,156	2,080	11,236
Sedgwick	6,334	1,387	7,721
Washington	10,262	2,479	12,741
Yuma	19,998	5,043	25,041
NECALG	133,942	33,334	167,276
Cheyenne	4,355	1,107	5,462
Elbert	31,545	11,316	42,861
Kit Carson	16,486	3,848	20,334
Lincoln	10,702	2,600	13,302
ECCOG	63,088	18,871	81,959
Regional Total	197,030	52,205	249,235

Source: Demand Estimate Tables in Appendix A & B

Demand Estimates for the Year 2010

A review of Table 4-2, Demand Estimate for 2010, shows that, for the region, there is demand for approximately 307,000 annual one-way passenger trips.

The county with the most one-way passenger trips continues to be Morgan County with 76,918. The high amount of future growth in Elbert County moves Elbert County to the second most one-way passenger trips with 64,289 followed by Logan County with 60,970. The fewest number of trips is in Cheyenne County, with 5,668 one-way passenger trips in 2010

This estimated demand is distributed throughout the two transit service areas as follows: for NECALG the total one-way passenger trips demand is projected to be approximately 199,000 and for ECCOG the projected demand is approximately 108,000.

Table 4-2 Demand Estimate for 2010: Annual One-Way Passenger Trips			
County	Survey Research Method	Employee Transit Use Method	Total Transit Demand
Logan	46,406	14,564	60,970
Morgan	59,495	17,423	76,918
Phillips	9,673	2,813	12,486
Sedgwick	6,744	1,600	8,344
Washington	10,612	2,535	13,147
Yuma	21,561	6,099	27,660
NECALG	154,491	45,034	199,525
Cheyenne	4,102	1,566	5,668
Elbert	46,440	17,849	64,289
Kit Carson	17,787	5,017	22,804
Lincoln	11,274	3,577	14,851
ECCOG	79,603	28,009	107,612
Regional Total	234,094	73,043	307,137

Source: Demand Estimate Tables in Appendix A & B

Demand Estimates for the Year 2030

Table 4-3, Demand Estimate for 2030 shows that, for the region, there is demand for approximately 457,000 annual one-way passenger trips.

The county with the most one-way passenger trips becomes Elbert County with 126,859. Morgan County is second with 118,995 followed by Logan County with 90,542. The fewest trips are in Cheyenne County with 5,398 one-way passenger trips in 2020. This estimated demand is distributed throughout the two transit service areas as follows: for NECALG the total one-way passenger trips demand is projected to be approximately 280,000 and for ECCOG the projected demand is approximately 176,000.

Table 4-3 Demand Estimate for 2030: Annual One-Way Passenger Trips			
County	Survey Research Method	Employee Transit Use Method	Total Transit Demand
Logan	64,231	26,311	90,542
Morgan	89,250	29,745	118,995
Phillips	10,785	3,505	14,290
Sedgwick	7,618	2,101	9,719
Washington	11,342	3,177	14,519
Yuma	24,726	7,749	32,205
NECALG	207,952	72,318	280,270
Cheyenne	3,972	1,426	5,398
Elbert	100,028	26,831	126,859
Kit Carson	20,455	5,919	26,374
Lincoln	12,983	4,761	17,744
ECCOG	137,438	38,937	176,375
Regional Total	345,390	111,255	456,645

Source: Demand Estimate Tables in Appendix A & B

Projected Percent Transit Demand Increase

Table 4-4 compares the increase in public transit demand for each of the counties, NECALG, ECCOG, and the entire region. The increase for the entire region between 2000 and 2010 is 23.2% or 57,902 one-way passenger trips. Of those trips, 48,779 trips (over 84% of the increase) are estimated to occur in Logan, Morgan and Elbert counties. This indicates that these counties are growing significantly more rapidly than the other counties in the study area. Removing these three counties from the calculations, the number of one-way passenger trips in the region increases only 9.5%, with NECALG (less Logan and Morgan counties) increasing 8.6% and ECCOG (less Elbert County) increasing 10.8%.

The change from 2000 to 2030 shows that, for the entire region, there is a projected increase of 83.2% or 207,410 one-way passenger trips. Removing Elbert County (due to its urban character projected to occur well before 2030) changes the projected increase for the region to be 59.8%. The county with the most increase continues to be Elbert County with 196.0%. Morgan and Logan counties have an increase of 92.2% and 86.2% respectively. Phillips and Sedgwick counties have increases of 27.2% and 25.9% respectively while Washington, Yuma, Cheyenne, Kit Carson and Lincoln counties have increase in the range of 8.7 to 14.0 %.

For NECALG, the increase in total one-way passenger trips from 2000 to 2010 is 19.3%, with Logan and Morgan counties the highest with 25.4 and 24.2 respectively. Washington County is the smallest at 3.2%. From 2000 to 2030, Morgan County is shown with the largest percent increase in demand with 92.2%, while

Logan County is next with an increase of 86.2%. Sedgwick County shows the smallest net increase in actual trips with approximately 2,000 over the 30-year period while Yuma County shows the smallest percentage increase of 12.9%.

For ECCOG, the increase in total one-way passenger trips from 2000 to 2010 is 31.3%, with Elbert County the highest with 50.0% increase. Cheyenne County is the smallest at 3.8%. From 2000 to 2030, Elbert County is shown with the largest percent increase in demand with 196%, while Lincoln and Kit Carson show 13.1% and 13.0% increases respectively. Cheyenne County actually shows a projected decrease of 1.1 % due to the County have a projected small decrease in population from 2000 to 2030.

Table 4-4 Demand Estimates and Percent Change: Annual One-Way Passenger Trips					
County	2000	2010	2030	% Change 2000 - 2010	% Change 2000 - 2030
Logan	48,619	60,970	90,542	25.4 %	86.2 %
Morgan	61,918	76,918	118,995	24.2 %	92.2%
Phillips	11,236	12,486	14,290	11.1 %	27.2 %
Sedgwick	7,721	8,344	9,719	8.1 %	25.9 %
Washington	12,741	13,147	14,519	3.2 %	14.0 %
Yuma	25,041	27,660	32,205	10.5 %	12.9 %
NECALG	167,276	199,525	280,270	19.3 %	67.5 %
Cheyenne	5,462	5,668	5,398	3.8 %	-1.1 %
Elbert	42,861	64,289	126,859	50.0 %	196.0%
Kit Carson	20,334	22,804	26,374	12.1 %	13.0 %
Lincoln	13,302	14,851	17,744	11.6 %	13.1 %
ECCOG	81,959	107,612	176,375	31.3 %	115.2%
Regional Totals	249,235	307,137	456,645	23.2 %	83.2 %

Source: Table 4 - 1, Table 4 - 2, Table 4 - 3

Summary of Quantitative Needs Estimate

In an effort to understand what these demand estimates mean, it would be helpful to define transit need. Transit need is the number of trips that are required by a certain population under optimal transit conditions. Optimal conditions are rarely met by public transit because of a general lack of resources to provide service at this level. These optimal conditions include things like frequent service intervals and convenient hours, as well as numerous routes (possible fixed routes and schedules) and multiple destinations served.

The purpose of demand estimation is to determine the potential ridership if these conditions were provided. This is then used as a gauge to determine the level of service that should ideally be provided in an area. Typically, rural systems meet between 50% and 75% of the total transit demand in a given service area.

NECALG reported providing 78,580 annual passenger trips in 2002. The projected demand for trips for 2000 was 167,276. Using this information, NECALG in 2002 provided 47.0% of the trips as projected for 2000. However, in 1996, before service was cut back due to budget deficit issues, 109,000 trips were provided (or, 65% of the 2000 projected transit demand) showing that the projected need appears to be in the proper range.

ECCOG reported 58,279 annual passenger trips for 2002. The projected demand for trips for 2002 was 81,959 trips. Using this information, in 2002 ECCOG provided 71.1% of the trips projected as the demand in 2002. This seems to be well within the desired range of 50 to 75%. Also, a small number of the trips actually provided are in Elbert County where most of the projected need is identified.

It is interesting to note that the employee trips are projected to increase at much higher rates than the general public trips. Employee related trips are projected to grow by 113% whereas all types of transit demand trips are projected to grow by 75 % over the 30-year period. This again reflects the influence on the entire Region of the growth anticipated in the western portion of Elbert County.

Qualitative Methods to Determine Need

In addition to the quantitative techniques to identify potential ridership, it is often useful to look at some qualitative factors that could affect the need for transit services. To obtain information from the community, NECALG administered a survey throughout the six-county transit service area to obtain feedback on the level of knowledge about and use of transit services by community members. (This survey was not conducted only in the ECCOG area due to time constraints in soliciting input from the general public.)

From November 2003, through January 2004, surveys were conducted on the County Express Transit System. Surveys were distributed as follows: 1) A Survey was made available to every rider; 2) Surveys were distributed to every Senior Coordinator for distribution at the various Meet and Eat sites; 3) Surveys were distributed through Logan County United Way; 4) Surveys were distributed through the Family Center in Morgan County; and 5) Surveys were available at the Open House for the Eastern TPR meeting in Akron in January 2004.

The individuals responding to the survey indicated that they have numerous disabilities that necessitate them requiring transportation assistance. Among those mentioned were: Kidney failure, heart trouble, require wheel chair, Artificial limbs, hip and knee replacements, Strokes, arthritis, Blindness, chronic pneumonia, use of scooters or walkers, cannot walk.

Approximately 78% of those responding knew about available transit services. The average age of the riders is overwhelmingly the retired senior community. 80% of them are 65 years of age and older and another 13 % in the 60 – 64 age bracket.

The predominant reason (82%) given for not using Transit is that "I still drive and use my own vehicle." The other responses were each of such a small percentage that they are not felt to be significant.

There was a strong correlation between having a disability limiting traveling from home and desiring to use public transit service. Service to those with disabilities should continue a high priority for the transit services provided by both NECALG and ECCOG. Also the survey results suggest that the lack of awareness of this group about the potential advantages of using transit. Part of the process of developing increased ridership will be to establish an awareness of the economic savings and convenience of using transit. The results of the completed surveys (167) are reported in Table 4-5.

Table 4-5 Results of NECALG General Public Surveys										
Survey Questions	Akron	Haxtun	Holyoke	Logan County	Morgan County	Otis	Sedgwick	Wray	Yuma	Totals
Do you know what Public transit services are available for you use?										
Yes / No	22 / 6	11 / 1	17 / 3	10 / 2	7 / 1	8 / 2	8 / 7	23 / 5	18 / 9	124 / 36
Do you currently use the Public Transportation Services?										
Yes / No	6 / 24	2 / 10	2 / 19	9 / 3	5 / 3	1 / 9	0 / 15	4 / 23	9 / 18	38 / 124

Table 4-5 Results of NECALG General Public Surveys										
Survey Questions	Akron	Haxtun	Holyoke	Logan County	Morgan County	Otis	Sedgwick	Wray	Yuma	Totals
If Yes; for what purpose?										
Medical	2	1	4	10	5	2		3	8	35
Meal Site	3	2	2	1	1			3	1	13
Shopping	1	1	4	3	2			2	3	16
Recreation	2	1	1	2				1	1	8
Other	2				4	1		1	2	10
If No; would you consider using the service in the future? Yes / No	17 / 3	10 / 1	15 / 1	5 / 0	2 / 0	11 / 0	9 / 3	13 / 7	9 / 7	91 / 22
What is your age?			2	1	2	1			1	7
30 - 49				3	1				1	5
50 - 59			6	2		1	2	1	9	21
60 - 64			14	6	5	9	13	26	15	130
65 and +	30	12								
Are you: Employed full time				1					1	2
Employed part time	2	2	3	2	1	1	1	1	1	14
Retired	20	8	19	5	5	9	13	25	20	124
Homemaker	8	2		2	1		1		1	15
Are you Male or Female?										
Male	11	4	7	6	1	5	7	10	10	61
Female	17	8	12	5	7	5	8	14	13	89
If you've seen the brochure, does it answer your service related questions?										
Yes / No	13 / 2	10 / 1	5 / 5	5 / 5	4 / 1	3 / 3	3 / 2	6 / 9	9 / 11	58 / 39
Is the logo attractive?	13 / 0	9 / 0	6 / 0	10 / 0	6 / 0	2 / 0	5 / 1	6 / 0	16 / 3	73 / 4
Yes / No										
Is logo easily identifiable?	9 / 0	9 / 0	6 / 1	9 / 0	6 / 0	0 / 0	4 / 1	8 / 0	11 / 3	62 / 5
Yes / No										
Do you feel safe in our vehicles?	12 / 0	4 / 0	4 / 1	11 / 0	7 / 0	3 / 0	1 / 0	7 / 0	13 / 2	62 / 3
Yes / No										
Do you feel welcome?	12 / 0	4 / 0	4 / 1	11 / 0	7 / 0	2 / 0	1 / 0	7 / 0	12 / 3	60 / 4
Yes / No										
Do you feel service is open to all?	17 / 0	10 / 0	10 / 0	11 / 0	7 / 1	5 / 0	6 / 0	13 / 1	18 / 2	97 / 4
Yes / No										
Does it seem limited to a certain group?	2 / 12	0 / 9	1 / 5	0 / 10	2 / 6	0 / 2	0 / 3	0 / 11	2 / 15	7 / 73
Yes / No										
Are Vehicles Clean?										
Inside	14 / 0	4 / 0	3 / 0	9 / 1	7 / 0	3 / 0	1 / 0	7 / 0	14 / 0	62 / 1
Yes / No										
Outside	10 / 0	3 / 0	3 / 0	10 / 0	7 / 0	2 / 0	1 / 0	6 / 0	11 / 0	53 / 0
Yes / No										
Was the Driver Helpful, Courteous, & Pleasant?	13	3	2	11	7	3	1	6	13	59
Was the Driver Rude & Impatient?	0	1	0	0	1	0	0	0	0	2

Additional destinations that were utilized by bus riders in addition to those mentioned above were:

- Beauty Shop
- Volunteer Work
- Attend Council Meetings
- Education Related

In response to the question "What prevents you from using the public transit service?" The following answers were received:

- I still drive my own vehicle 65
- The Transit service is not convenient 4
- I don't know enough about it..... 3
- Too Costly 3
- It is not available..... 2
- My family takes where I need to go 1
- It doesn't go where I go 1

Some of the general comments received on the Survey were:

- Thank you for the Service!
- Keep the Service going!
- I will use it in the future if I need it.
- It costs too much to ride in Haxtun.
- Increase the size of the logo on the buses; get the word out!
- Keep up the good work!
- I'll use the bus more when I no longer drive.
- Drivers are very helpful and pleasant
- Consider regularly scheduled routes in Sterling.
- The buses are the only things in Sterling wheel chair accessible.
- We need more access to the Wiggins area
- Could the bus run on Saturday for shopping and eating out?
- Thanks for the Wonderful Service!
- Could Seniors have free round trip to "Meet and Eat"?
- I need more information about the service.
- Does the bus go to other towns; perhaps Denver?
- Some services are too expensive; it is cheaper to drive my own car.
- Why is the dispatcher located in Yuma?
- Sometimes the dispatcher is not available.
- Very Good Service!
- Wray driver sometimes has to substitute for another driver so Wray has no driver.
- I appreciate the bus; the drivers are pleasant and kind.
- South Yuma area needs bus service.
- Bus takes me to dialysis so I get to continue to live where I am.

Additionally, the Eastern TPR contracted with Corona Research to conduct surveys of attendees at county fairs throughout the TPR during the summer of 2003. The complete survey and its results are included in an Appendix to the 2030 Plan document. Transit related information from this survey, which included 426 total interviews at the county fairs held throughout the ECCOG and NECALG areas, is summarized below:

- 90 % of all respondents drove their own vehicle to travel during a typical week. 4 % of those interviewed indicate they use public transit for between 1% and 25% of their travel.
- 4 % of those interviewed indicated they do not own a vehicle; making many of them strong candidates to use public transit.
- When asked the ability of the existing public transit system to serve travel needs, 25% said it was very good or good, while 33% said it was poor or very poor. An additional 42% answered "questionable" or "don't know".
- On average, respondents indicated they would spend about 12% of public transportation funding to expand bus service. In contrast, 60% would spend funds to add shoulders to highways, add highway lanes, or add passing lanes to existing highways.
- When asked, "Do you know of any public transit services that are available for use in your county?" 52% said 'No'. There was no difference in males and females in this response; however, individuals over 40 years of age were more likely to be aware of transit than were those 40 years of age and younger.
- In response to "How often do you use the public transportation services offered in your county?" 89 % said "Never". Of those that indicated they were aware of public transit, 85% said they never use it. The other predominant responses from that group were 4% using the service 3 times per week and 5 % using it less than once a month.
- When asked a preference for either "Provide transit service to major employers" or "Increase transit service for the elderly and the disabled"; 77% chose additional service to the elderly and disabled.
- When asked the reason for "Never" using public transportation services offered in their county, significant response were:
 - 72% - "I have my own vehicle or other transportation options I prefer"
 - 22% - "Don't know of any transit services"
 - 7% - "Doesn't travel to convenient places"
 - 6% - "Doesn't operate at convenient times"
 - 5% - "Too expensive"

Analysis of these qualitative methods and the response from the above surveys suggest that additional marketing of County Express to increase the awareness of these public transportation providers and the specific services they offer should be included in the future plans of both transit operations. Also, the ability to increase revenues through more aggressive fares and donation solicitation should be considered; as "cost" was not at all a significant factor in determining why transit was not being utilized.

CHAPTER 5: TRANSIT STRATEGIES AND ALTERNATIVES

Strategies for Providing Effective Transit Service

In order to develop a six-year plan for ECCOG and NECALG, it is necessary to recognize the community profile and transit needs of the region. These elements will be important in providing direction for implementation of a transit plan. Additionally, the current level of services provided and the effectiveness of these services in meeting the needs of the community are important factors in planning for future transit services.

The term transit service encompasses a wide range of alternatives. The majority of service currently being provided by both the County Express and Outback Express relies on "dial-a-ride" appointments providing curb-to-curb transit service. A number of other transit service types exist, including fixed route scheduled service with modifications such as route deviation and checkpoint service. Transportation Demand Management strategies that focus on alternatives to the use of single occupant vehicles (SOV) such as carpools and vanpools should be considered.

This chapter will review relevant issues and suggested strategies for providing effective transit service. These issues and strategies have been developed during Joint Transportation Advisory Committee meetings and through community meetings and surveys. In order to more completely understand these strategies, this chapter will also summarize the community and transit profile of the region. The status of existing service levels and projected transit needs, detailed in Chapters 2 and 4, will also be recapped.

Community/Population Factors

The ten-county area being reviewed for this study stretches 175 miles from north to south and up to 125 miles east to west and accounts for 17% of the total land area in Colorado. This area is home to about 2.1% of the total population of Colorado. The predominate transportation corridors are Interstate Highways 70 and 76. While NECALG accounts for 62% of the highway miles in the region the ECCOG area accounts for more daily vehicle miles of travel. This reflects the high volume of interstate travel especially commercial truck traffic on I-70 and US 40/287 that has little impact on the opportunities for transit alternatives.

In 1990, the population of the study area was 83,783. By the year 2000 the population grew to 105,940, an increase of just over 19%. During the same period of time, the State of Colorado grew at an average 31%. The major contributor to this growth is Elbert County with an increase of 106%, primarily in the west end of the county surrounding Elizabeth and Kiowa.

From the year 2000 to 2010, the projected growth for the region is 18.4%, compared to the overall growth of Colorado projected to be 19%. The projected growth for ECCOG including Elbert County is 23.4%. Due to the unusually high growth rate of this one county and its influence as the highest populated county in the ECCOG service area, it is recommended that this area be viewed separately from the rest of the region. Excluding Elbert County, the growth in the other counties in the ECCOG area is projected to be only 0.2% between 2000 and 2010. NECALG projected growth during the 2000-2010 period is 15.6%.

Looking farther into the future from 2000 to the year 2030, the projected growth for the region is 69.1% reaching a total population of 150,265. Growth across the State of Colorado for the same time period is estimated to be 65%.

Two specific sectors of population growth are significant for the region in relation to future transit demands. First is the rapidly expanding number of older adults. The second is the increasing number of employees and their potential impact on transit needs.

Currently, elderly persons (age 65 or older) represent 13.6% of the total population region-wide. By 2030, this group will be bolstered by the late baby boomers increasing this market segment to 16.5%. In terms of total population, the number of residents over the age of 65 will grow from 12,094 in 2000 to 24,834 by 2030, nearly a 105% increase. This aging population will have a dramatic impact on the demand for transit services across the region.

Total employment within the region has also increased significantly. Between 2000 and 2010, the total number of employees is predicted to grow from 49,719 to 69,564. ECCOG is estimated to grow from 17,972 to 26,675 employees, with NECALG growing from 31,747 to 42,889 employees. By 2030, the total number of employees will grow over 113%, with over 105,957 employees.

The growth in ECCOG is led by Elbert County. For example, 25,553 of the 105,957 employees in 2030 will be from Elbert County. The majority will work and commute to the Front Range. Therefore, they will not impact the core transit needs of the ECCOG area. The majority of growth in NECALG is centered in Morgan and Logan counties.

Existing Transit Services

ECCOG/Outback Express

The coordinated public transit system known as Outback Express includes several transit operations. The primary service, available regionally as the Outback Express, is operated under the direct control of ECCOG. The City of Burlington, Town of Limon, Dynamic Dimensions, Inc., and Retired and Senior Volunteer Program (RSVP) in Lincoln and Kit Carson counties offer other local services besides Outback Express. Several local assisted living and nursing homes provide transportation to their residents. In 2002, the Outback Express provided 58,279 trips. There are twelve vehicles in the primary fleet all purchased with federal funding. A secondary fleet of seven vehicles has been purchased using local funding and limited federal funding and is not under consideration for replacement with funds from any future FTA grants programs. The vehicles are located in a minimum of ten locations throughout the area. This strategy provides excellent local access with minimum deadhead travel costs. However, it also results in marginal vehicle utility. The average vehicle travels under 10,240 miles on a yearly basis and is in operation 18 hours a week.

Total cost per passenger trip is \$3.60, up from \$3.18 in 1999. The operating budget for 2002 was \$167,000. The capital budget for the same year was \$51,000. Over 46% of the total budget is provided from in-kind funding from the various local governments where vehicles operate. This is lower than the 54% of in-kind in 1999.

In 2002, Outback Express provided 58,279 trips. There are 19 vehicles in the fleet, with 12 assigned to daily service. For those vehicles in daily service, the average unit travels approximately 10,240 miles on a yearly basis and is in operation 18 hours a week, an acceptable utility rate. The 12% spare ratio is considerably lower than the 67% figure in 1999. The average fleet vehicle in daily use was purchased in

1996 and has 66,837 service miles. The average vehicle in back-up service was manufactured in 1994 and has been in service for 68,763 miles. Overall, the average age of the fleet is 9 years old and was purchased in 1995 with 67,547 miles per vehicle.

NECALG/County Express

In June 1998, the Board of Directors of NECALG took over operations of County Express from the Northeastern Colorado Transportation Authority. In order to achieve financial stability, the number of trips was decreased approximately 20,000 from the nearly 105,000 trips provided in 1997. Vehicles that were in poor mechanical condition were pulled from service. Trips to isolated areas of each county or trips with less than five passengers were curtailed and fares were increased. Additional funding sources were secured from the Colorado Department of Local Affairs and the Temporary Assistance for Needy Families (TANF). By 1999, service levels were stabilized and financial management was secure.

In addition to several local assisted living and nursing homes providing transportation to their residents, there are two other major transit programs in this area. The Sunset Manor in Brush operates four vehicles for transportation to medical appointments and other senior services. Eastern Colorado Services has access to 32 passenger vehicles that serve a broad ten county area. Using non-transportation staff as drivers, this transportation service is limited to persons with a physical mental or cognitive disability.

In 2002, County Express provided 78,580 trips. There are 46 vehicles in the fleet, with 35 assigned to daily service. For those vehicles in daily service, the average unit travels approximately 16,300 miles on a yearly basis and is in operation 19 hours a week, an acceptable utility rate. The 12% spare ratio is considerably lower than the 35% figure in 1999. The average fleet vehicle in daily use was purchased in 1998 and has 83,410 service miles. The average vehicle in back-up service was manufactured in 1992 and has been in service for 115,211 miles. Overall, the average age of the fleet is 8 years old and was purchased in 1996 with 91,015 miles per vehicle.

Total cost per passenger trip is \$8.95, down from \$9.31 in 1999. This trip cost reflects the longer distance of many of their trips. The operating budget for 2002 was \$517,000. The capital budget for the same year was \$199,000. Over 39% of the total budget is provided from FTA funding. Local contributions and Medicaid payments provide 22% and 13% respectively and are the two other primary sources of funding.

Regional Transit Operations

Currently, Dashabout Roadrunner, a Public Utilities Commission authorized for-hire motor carrier, provides fixed-route scheduled service on a regional basis. Daily trips are provided along the 1-76 and 1-70 corridors. There is a perception that service along the 1-76 corridor is more reliable and regular than in the southern counties bordering 1-70. The service connects with major air and bus terminals on the Front Range. Challenges include high fares and the need for pickup in rural locations.

Greyhound also serves the area daily with service to Denver and points east along both I-70 and I-76.

Current and Future Transit Needs

Transit Demands and needs were identified in detail in Chapter 4. Transit demand methodologies were used to estimate current and future transit needs. Transit demand estimates utilized data from the 2000 census as compiled by the Demography Section of the Colorado Department of Local Affairs. The following two models were utilized in calculating transit demand estimates: Survey Research Method; and Employee Transit Use Method.

These calculations of the estimated need for transit compared with current service being provided are shown in Table 5-1.

Table 5 - 1 Estimated Annual Passenger Trip Demand vs. Current Service Provided					
	2000	2010	10 year % Change	2030	30 year % Change
<u>ECCOG</u> Estimated Transit Need	81,959	107,612	31%	176,375	115%
Current Service Provided	58,279	na	na	na	na
% Need Met	71%	na	na	na	na
<u>NECALG</u> Estimated Transit Need	167,276	199,525	19%	280,270	68%
Current Service Provided	78,580	na	na	na	na
% Need Met	47%	na	na	na	na
<u>Regional Total</u> Estimated Transit Need	249,235	307,137	23%	456,645	83%
Current Service Provided	136,859	na	na	na	na
% Need Met	55%	na	na	na	na

Typically, rural systems are considered adequate when they meet between 50% and 75% of the total transit demand in a given service area. Based on this standard, the current level of transit service is in line with the expectation for rural areas. However, as nearly 45% of the need is not being met, there appears to be significant need that is not currently being met within the region.

The increase in employee trips, 113% from 2000 to 2030, is higher than the increase in general public trips, 75% from 2000 to 2030. This could cause increased congestion particularly in western Elbert County along SH 86.

The following are potential issues that should be considered to continue to provide the most effective transit services possible throughout this 10-county region:

ECCOG

- The community expects local control of vehicles. This has resulted in low vehicle utility that should be considered in future planning.
- The fleet has a high number of "secondary" vehicles with very low use. Capital resources need to be utilized more effectively. Ongoing funding streams to acquire the vehicles within the region need to be found.
- The operating budget is significantly constrained by local in-kind funding.
- Additional funding sources that would allow more flexibility and higher service levels should be pursued.
- Relative to other rural areas, the current service is meeting a high percentage of the demand for transit.
- The demand for regularly scheduled trips from the region to the Front Range is currently unmet and needs to be addressed.

- The western portion of Elbert County, particularly the Towns of Elizabeth, Kiowa and their surrounding areas should be considered separately. The needs of these communities are more related to commuter needs than the specialized services needed by the aging population in the rest of the region.
- While the percentage of transit need currently being met is very adequate for these types of services, additionally transit service marketing programs should be investigated.

NECALG

- The transition from NECTA to NECALG management appears to have been successful, with ridership and operational factors improving. As an example, NECALG in 2002 had a deficit of \$16,412, which was improved to a surplus of \$31,994 at the close of 2003.
- The vehicle fleet is aging, an issue that needs to be addressed. Specifically, older vehicles must be removed to prevent a drain on the maintenance budget and provide a dependable, presentable fleet.
- All new services, particularly the growing market for alternative transportation for students as well as the proposed reverse commute must be carefully monitored.
- There appear to be several opportunities for forming new public/private partnerships.
- While the percentage of transit need currently being met is very adequate for these types of services, additionally transit service marketing programs should be investigated.

Regional

- The need for transportation for employees should be addressed, particularly in western Elbert County and with the larger employment centers in Logan and Morgan counties. Transportation Demand Management strategies will be important to developing these programs.
- Opportunities should continue to be explored to develop partnerships with for-hire services, specifically Dashabout Roadrunner.

Transit Institutional Alternatives

A variety of opportunities for organizing transit services can be identified. As was the case in the 2001 Transit Element, both regions are operating under the umbrella of a Council of Local Governments. Eight institutional alternatives that are commonly used to manage transit service have been recognized:

- Council of Local Governments
- Intergovernmental Transit Agency
- Metropolitan District
- Regional Service Authority
- Rural Transportation Authority
- Public-Private Partnership
- Private, Non-Profit Corporation
- Private, For Profit

The current organizational structures of County Express and Outback Express operate under the management of the local Council of Government (COG) authorities, Northeastern Colorado Association of Local Governments (NECALG) and East Central Council of Governments (ECCOG). The COG Boards

must approve major system design and funding decisions, with significant day-to-day decision-making delegated to the transit agency and its staff.

The formation of a Rural Transportation Authority (RTA) to connect these two operations could be considered a next step. This potential for such an action was identified in the 2001 Transit Element, and this update of that document to 2030 contains the same recommendation to consider the formation of a RTA to connect the County Express and Outback Express operations at some point in the future. The organizational structure of a Colorado RTA is determined in part by statute and in part by the intergovernmental agreement creating the RTA. There is considerable flexibility to design an organization that has the support of the member governments and the public. One significant advantage of a RTA is the capability to bring several municipalities, counties, or councils of government together in funding and operating a transit system.

Transportation Demand Management

TDM consists of a wide range of programs and services that enable individuals to get around without driving alone. Included are alternative transportation modes like carpooling, vanpooling, transit, bicycling and walking, as well as programs that alleviate traffic and parking problems such as telecommuting, variable work hours, and parking management.

TDM is particularly suited to address traveling mid-range to longer distances with rideshare options such as vanpools and carpools. Based on national estimates and given standard fare structures, nearly eight percent of commuters who live more than fifteen miles from work and work for employers with 100+ employees are potential candidates for vanpooling. The market potential increases to 15 percent if the market is redefined as those who live more than 10 miles from work and are employed by organizations with 50 or more employees (national estimate). These types of services are effective in moving people around large areas, whether for work or for traveling to regional centers which have special services, medical facilities, or retail stores.

Carpools and vanpools have been identified as potential service strategies for both ECCOG and NECALG. These are discussed within the larger context of Transportation Demand Management (TDM) strategies. TDM strategies are designed to make the most efficient use of existing transportation facilities by reducing the actual "demand" placed on these facilities. Using strategies that promote alternative modes, increase vehicle occupancy, reduce travel distances and ease potential peak hour congestion, TDM efforts can extend the useful life of transportation facilities and enhance mobility options. They also work together to build shared ridership in major travel corridors and to support "seamless" travel from the perspective of the user.

Rideshare Matching Programs

Rideshare matching programs, specifically vanpools and carpools, are often effective in more urban areas than exist in the Eastern TPR. However, for those areas that have large employment centers, carpools in particular may be very useful in the Eastern TPR. Of course, vanpools and carpools should especially be promoted in the rapidly growing sections of western Elbert County. Such programs could have a positive effect on reducing the growing congestion along SH 86.

Rideshare matching programs provide service by identifying individuals who live and work close to each other, and then facilitating carpooling and vanpooling. Matching services can offer full-time partners, or simply someone to call in an emergency. Rideshare matching can be done by individual employers or on a community-wide basis. Such ridesharing need not be limited to trips to and from work. Travelers can also

be matched with others participating in the same extracurricular school function, for example, or periodic sports, gym, medical-related, or community activities.

More recently, rideshare matching is done through a computerized system. A variety of vendors have created inexpensive, effective software that makes this process easy to use. Rideshare services can also be offered on-line. However, it does not have to be done that way. The older version of using a "rider board" located centrally for people in need of transportation can still be an effective method of linking people in need of transportation to those who are already going to an activity center.

Marketing is particularly important when implementing a carpool and vanpool program. Getting information out to both employers and employees is a major task, and maintaining awareness of carpools and vanpools, as a commuter option is an ongoing activity.

As previously mentioned, two common forms of ridesharing are carpools and vanpools.

Carpools

One generally expects to see between 10 and 12 percent of workers carpooling. While this percentage is based on areas that have more large employment centers than does the Eastern TPR, for the large employers that do exist in the Region, carpooling opportunities do exist.

There are three recommended strategies for formalizing and increasing carpooling as a commuter mode throughout the region:

- The carpooling that is already established needs to be formally quantified and documented. This process might be as simple as using an employer-based registration system that provides an incentive for filling out an information/registration card. Incentives might be as simple as a chance to be entered in a drawing for dinner for two at popular restaurants or perhaps Front Range sporting events. Periodic updates and opportunities for future carpooling incentives would be an option for carpoolers.
- A benefit of registering carpools is that the informal carpools might be able to serve another commuter who works the same shift, or an additional participant in the same periodic activity. The baseline data forms the beginning of destination-driven ride matching.
- Once the baseline data quantifies a level of carpool usage, goals for increasing participation and incentives to attract more new carpools can be identified and implemented.

Vanpool Programs

In addition to carpool matching, vanpools are an alternative to be considered for major corridors. This is an appropriate strategy considering CDOT's current emphasis on Transportation corridors in the regional and statewide planning cycle.

There are four basic types of vanpool programs in operation today:

- 1) *Employers* (companies who buy/lease vehicles for use by their employees).
Twenty years ago there were as many as 20,000 employer vanpools across the country. Most employer vanpool programs formed in response to the oil embargos in the 1970s. Today, there is less than 20% of that total remaining across the U.S. Typically, companies discontinued funding the programs as the effects of the embargo receded and ridership diminished. Costs to employers only

increased, while employee participation decreased. However, with the cost of fuel rising, there may be a renewed opportunity for this type of program in those limited locations where a large employer exists within the Eastern TPR.

2) *Public Transit*

Transit systems have used various capital and operating subsidies to stimulate participation in vanpooling to expand service areas or fill areas with demand not justified by traditional forms of transit. Some transit systems built their own vanpool operation (VanGo in Fort Collins) or bought the market by teaming with a private operator in several urbanized areas.

3) *Private Operators* (once commonly referred to as third-party vanpool providers).

There are several private operators in the country: VPSI, Van Pool of New Jersey (New Jersey and Philadelphia), Drummond Transportation (Boston), EasyStreet (Connecticut), Enterprise Vanpool (Los Angeles, San Diego). These are private organizations (either for-profit or non-profit) that operate vanpool services for commuters, companies, and government agencies. These operators manage approximately 5,000 vans across the U.S., with VPSI the predominant provider with approximately 3,500 vehicles across 60 cities. VPSI provides services on behalf of more than twenty government agencies across the U.S. There may be potential for discussions with the correctional facilities within the Eastern TPR to utilize such Private Operator services.

4) *Owner/Operators* (individuals who buy/lease a vehicle for vanpooling).

This option probably has the least potential in a rural Region such as the Eastern TPR. The exception would be the western portion of Elbert County with the considerable number of commuters into the Denver Tech Center and the Denver metro area. Most owner/operator vanpools are concentrated in urban areas with extensive high occupancy vehicle lanes and severe congestion. Unfortunately, one vanpool expert says there were as many as 600 owner-operators nationwide about ten years ago but probably only 200-300 today. Affordable insurance and adequate coverage are major issues with this group. Changes in the insurance industry contributed to discontinuation of many vanpools in the 1980s.

An option for a vanpool program specific to this study is for an entity such as ECCOG or NECALG to use existing vehicles and administer the program. In some instances, the private business owner may supply the capital for vehicle lease or purchase. Either the employer or employee is responsible for the operating cost. There is also significant employee tax benefits associated with the provision of vanpools. Participants can share the cost of operating the vanpool; however, employers may fully or partially subsidize the costs. A transit agency could divert a vehicle currently in demand responsive service to use in a vanpool. The determination of how to price this type of vanpool service is based on several factors:

- Vehicle depreciation cost spread over five years or 50,000 miles of operation
- Vehicle usage is calculated on a monthly average of 21 days.
- Mileage is calculated on a round-trip basis
- Fuel costs/mile should be a conservative estimate, reflecting fluctuating fuel costs
- Maintenance costs are calculated based on a per mile cost (usually less than 10 cents per mile)
- Administrative responsibilities are greater at the beginning of the service and include marketing and training drivers
- Ongoing marketing is targeted at keeping vanpools viable and full and creating incentives and promotional programs

Vanpool Design

The program model offering the best chance for success is one that would partner with employers to sponsor vanpool vehicles. For example, a prison or large processing plant may commit to using vanpool vehicles for employees commuting from outside the immediate area. Annual participation contracts with renewal clauses should be signed. The vanpool administrator/coordinator holds meetings with employees and signs up the appropriate number of users for each van. Two or more drivers for each vanpool agree to a three-hour driver-training course and they are certified to drive the vehicle.

In exchange for driving, fueling the vehicle, and taking it in for scheduled maintenance, the primary driver may get his transportation free each month, and/or may have personal use of the vehicle for up to between 35 and 50 miles on the weekends/evenings. This is a valued incentive where the employer pays for most or all of the driver's commuter costs.

Vehicle Replacement

Cost for vehicle replacement must be considered in funding this program. The operating agency must collect enough of a per-mile cost to accrue the purchase cost of the vehicle over five years or 50,000 miles.

The factors above address the elements to organizing and managing a vanpool program. However, the number one factor to implementing a successful vanpool program is to develop partnering relationships with the businesses that will benefit. Again, due to the limited number of large employers in the Eastern TPR there will not be many opportunities. The partnership of the employer and employee is critical to maintaining stable and cost effective vanpools. From the acquisition of the vehicle to securing a full roster of riders, a positive mutual advantage must be present.

Technology and Transit

A consideration in planning for transit systems is the impact of improvements in technology. There have been many advances in technology in recent years, including programs that fall into Intelligent Transportation Systems (ITS). ITS focus on a broad spectrum of techniques designed to improve access for all vehicular transportation. Many of the advances can be applied to the transit industry. These transit-specific applications have come to be known as Advanced Public Transportation Systems (APTS). Some may have applicability now or in the not too distant future to the services provided by the Eastern Transportation Planning Region.

Demand Response Dispatching (DRD)

These systems utilize a computer system to match ride requests with vehicle availability and capacity. This system quickly and efficiently assigns passengers to vehicles after considering a number of variables required in providing good customer service. There is a variety of software packages designed to accomplish this task in a wide price range depending primarily on the sophistication of the application.

Automatic Vehicle Location System (AVL)

These vehicle locator systems apply modern technology to determine the physical location of the vehicle. Using a satellite orbiting above the earth and triangulation methods, these technologies have become very accurate in determining the exact location of a vehicle. By knowing the exact location of the vehicles for which he/she is responsible, a dispatcher can quickly determine the most efficient way to respond to a ride request.

Automated Transit Information (ATI)

These systems work with DRD and AVL to provide customers with accurate, often "real-time," information regarding the trip they have planned or scheduled. This information can be provided using automated phone systems or video terminals.

Marketing

An appropriate level of marketing is critical to the success of any transit program. Any marketing program requires certain elements to be successful. Some of the basics are:

- A readily identifiable service name and logo.
- The name/logo and telephone number for obtaining schedule information and reservations should be painted on the vehicles.
- A simple brochure, which includes a service description, bus schedule, information on the stops and locations of park-and-rides, and the fares, should be distributed widely. The schedule could be reprinted in an issue of the local newspaper or other local media as well. Because both transit and rideshare services will be provided, a separate brochure describing rideshare services may be appropriate rather than putting all the information on one brochure.
- Communication with community leaders can be accomplished through an annual report sent to a broad spectrum of officials, agencies and businesses.

There are many inexpensive yet effective ways to market the service on a limited budget. The vehicle itself is an important marketing tool. The name, logo and information telephone number should be displayed on the exterior of the vehicle. The vehicle should be kept clean to the extent possible in order to present a positive image of the service.

Examples of specific promotional activities for a new service include frequent news releases to local radio stations and newspapers regarding the changes in service and media coverage of City Council members or County Commissioners taking a ride on the bus. Examples of promotional activities for the ongoing service include bringing the bus to special events on holidays, such as parades, and sponsoring contests and drawings for riders.

The Policy bodies governing the Transit systems in the Eastern TPR should make decisions on what the marketing program will include. The budget needs to reflect the cost of the marketing program. Implementation will be by the management/administrative staff.

ECCOG Transit Service Alternatives and Transit Element Plan

Operating Service Alternatives

The basis for a transit alternatives analysis is careful consideration of realistic service alternatives. Capital requirements, financial plans and management options can then be developed to support the planned services. The following discussion evaluates both the opportunities for new services as well as modification of existing services.

Maintain Status Quo

The first option to be considered is to maintain the current level of transit services being offered in the four-county ECCOG service area. Vans and wheelchair accessible mini-buses are based out of eleven of the region's communities. Local transportation service is provided to meal sites as well as transportation for essential shopping, errands, medical appointments, courthouse, post office, etc. Service for medical and other necessary appointments is provided to communities within the region and longer distances to Denver, Colorado Springs, Lamar and Goodland, Kansas. Several local assisted living centers and nursing homes continue to provide transportation to their residents, augmented with special trips by the ECCOG services.

This alternative will continue to meet the immediate needs of the four-county region. Seniors and persons with disabilities will have transportation services to meal sites and medical appointments. Limited services will be available for recreational opportunities.

This alternative fails to meet the transportation needs of county residents located any distance outside the eleven communities where vehicles are located. The lack of scheduled service will not address the growing needs of employees commuting within the region. Also, this alternative does not address the explosive growth occurring in western Elbert County. This growth will significantly increase the number of commuters to and from the Denver and Colorado Springs areas for employment purposes.

Modify Existing Service

Frequency of Service. A way to measure frequency of service is to divide the total number of service hours by the number of days of service and the number of vehicles. In 2002, the total number of service hours was reported as 11,380, the number of service days was approximately 250 (Monday through Friday, 52 weeks, minus holidays) and the number of vehicles was 12. The resulting measure of frequency of service from the calculation is 3.79 hours of service per vehicle per day. Interpreting this, the frequency of service would indicate that vehicles are providing service nearly ½ of the day. This is up considerably over the 1.49 hours of service in 1999. The hours of service per day is called vehicle utility. It is important to have this figure as high as possible. Obviously, the 58 % increase in vehicle hours from 1998 to 2002 is a very positive step. Obviously, funding for additional operating hours is a major factor in not providing more service hours. The vehicle utility of the current fleet needs to be monitored continuously. If the figure falls back toward the 1999 level, the possibility of reducing the number of vehicles could be considered.

Two ways to increase the frequency of service with the present demand response system should be considered. One is to increase the number of requests for services and the other is to increase the number of regularly planned and scheduled trips offered to the passengers.

Increasing the Number of Regularly Planned Trips. Currently it appears that each community Coordinator/Driver independently schedules long distance trips to Colorado Springs, Denver, Lamar and Goodland, Kansas. These trips usually are planned once or twice a month from most communities where a vehicle is stationed. Five passengers are generally required to make the longer distance trips a reality, although some exceptions can be made for medical trips.

There are several opportunities for riders to "join" a vehicle coming from a neighboring town. A rider is referred to a printed schedule to see when a trip will be leaving. If this coordination effort could be marketed to gain more riders and supported by dispatching coordination, it may allow trips to be scheduled more frequently and increase ridership. There is often a problem with scheduling at the destination as these are frequently medical trips and require more time.

There are several natural corridors of travel when making most of these trips. One corridor clearly is along Interstate 70. Trips from Burlington to Denver or Colorado Springs could travel along 1-70 stopping at Stratford, Seibert, Vona, Flagler, and Arriba to Limon. After a stop in Limon, the trip can continue on 1-70 for the trip to Denver or it can take U. S. Highway 24 through Simla to Colorado Springs. Another corridor is US 40 and 287 connecting Cheyenne Wells, Kit Carson, Hugo, and Limon. With a clear schedule and coordination, these passengers could also connect in Limon to continue their travel on to Denver.

Trips could be scheduled along either of these corridors on a regular basis, possibly as often as weekly. This would dramatically increase the opportunities for passengers in all communities to make the trip and schedule appointments or do shopping. It would require coordination of passengers and vehicles from the various community coordinators and extensive planning for the stops once the vehicle gets into Denver or Colorado Springs.

Offering trips more often by coordinating and combining those along corridors will result in several benefits to the system, the passengers, and the funding partners. The system can increase the vehicle utility by having funding to offer more hours of local service. The passengers will have more opportunities to schedule appointments and take care of business. The funding partners could increase local services from savings of not having a vehicle from each community making a trip to Denver or Colorado Springs.

Span of Service. There are essentially two ways to increase the span of service. One is to increase hours per day of service and the other is to increase the number of days of service. For Outback Express, this would involve some sort of service provided later in the evening and/or on the weekend. Either increase can be accomplished in this system but the question becomes is additional service warranted and at what additional expense.

Hours of Operation. Based on the information the consultant team gathered from transportation providers in the region, most of the systems offer services from 8:00 a.m. to 5:00 p.m. The most likely need for additional service would be in the evening, after 5:00 p.m. for restaurants, sporting events, shopping, night classes and non-emergency medical transportation.

Evening ridership, in more urban settings, is usually about 25% of the average hourly ridership. However, in this rural area, evening ridership would not be expected to reach even this figure of 25%. The previous Transit Element completed in 2001 assumed the 25% figure for evening ridership and even with that figure suggested that performance measures of an evening service would not be cost effective. Therefore, the implementation of evening service is not being recommended for this area.

Days of Operation. Increasing the days of service basically means providing some service over the weekends. Service could be provided on either Saturday or Sunday, or it could be provided on both Saturday and Sunday. These trips could be recreational, shopping or local service such as church trips. Recreational or shopping trips are likely to be taken into one of the major metropolitan areas such as Denver or Colorado Springs. Church trips would most likely be local service within a community. Reservations 24-hours in advance would make scheduling of drivers and vehicles more efficient.

One of the objectives of the ECCOG is to create additional scheduled trips from the region into the Denver and Colorado Springs regions. These trips would generate additional fares that should be established so that the fares recovered more of the operating costs of providing such trips.

Again the previous Transit Element indicated that weekend trips would not be as efficient as other Outback Express weekday services; therefore it was questionable that weekend service would be a viable alternative to increasing service. However, with the stated goal of adding scheduled service to the Denver and Colorado Springs areas, the Board might want to consider a well defined pilot effort for a period of time.

Such an effort should be done only following a survey of existing and potential riders of such a proposed service to determine if there would be demand for such long distance weekend services.

Capital Facilities Alternatives

Replacement of Existing Fleet

Over the next seven years all twelve vehicles identified as being in the ECCOG primary fleet are scheduled for replacement as shown in Table 5-2. Within the planning time frame of this Transit Element Plan, 2005 – 2010, eleven of the twelve vehicles are planned for replacement. Two of the vehicles to be replaced are already overdue for replacement.

Table 5-2 Vehicle Replacement Schedule			
Year to be Replaced	Type of Vehicle	Sponsoring Agency	Age at Replacement
2003	Ford Van	Kit Carson	15
2003	Chevy Van	Lincoln Co./Arriba.	14
2004	Ford Mini-bus	Elbert Co./Kiowa	9
2005	Ford/Goshen Mini-bus	Kit Carson Co./ Burlington	9
2005	Ford/Goshen Mini-bus	Kit Carson Co./ Stratton	9
2006	Ford/Goshen Mini-bus	Limon	9
2007	Ford/Goshen Mini-bus	Cheyenne County	9
2007	GMC Mini-van	DDI	9
2008	Ford Mini-bus	Elbert Co./Simla	9
2009	Ford Mini-bus	Kit Carson Co./ Flagler	9
2010	Ford-Thomas Mini-bus	Burlington	9
2011	Ford/Goshen Mini-bus	Lincoln Co./Hugo	9

ECCOG management has stated that the eight vehicles in the secondary fleet have been purchased with local funding or, if FTA funding was used for the initial purchase, the federal interest has expired. The ECCOG Board has made a policy decision that any replacement vehicles for the secondary fleet will be the responsibility of the individual communities. If the local group using a vehicle identified in a secondary fleet vehicle wants the vehicle replaced, it will be replaced with all local funds. Any funds received from federal grant programs will be allocated to purchasing vehicles for the primary fleet.

Bus Storage/Maintenance Facilities

As has been discussed, the Outback Express system locates vehicles strategically throughout this vast area. Also, fueling and maintenance are routinely scheduled at local Public Works facilities. This service is provided as an in-kind contribution to the operation budget. Unless there is a radical change to this strategy, the need for Facilities is minimal.

Transportation Demand Management

TDM consists of a wide range of programs and services that enable individuals to get around without driving alone. Included are alternative transportation modes like carpooling, vanpooling, transit, bicycling and walking, as well as programs that alleviate traffic and parking problems such as telecommuting, variable work hours, and parking management.

Vanpool Program

There are several opportunities in the ECCOG area to provide vanpool service to major employers, specifically the Correctional Facilities in Limon and Burlington. In addition to having significant employee bases, 310 and 115 respectively, they are located where motorized transportation is necessary to get to the workplace. Walking or biking is not an option. Work is scheduled on shifts, so arrivals and departures are coordinated.

There is a possibility to place a van that is being used infrequently into vanpool service. The employer or the vanpool rider would be responsible for all operating expenses. This would support the goal of increased utility without requiring additional funding from the Outback Express budget.

Western Elbert County

Elbert County is growing very rapidly as indicated in all the demographic information provided in the report. It is growing much faster and is much larger than any of the other three counties in the ECCOG service area. Its proximity to Denver as well as to Douglas and Arapahoe counties make it a convenient place to live and commute into the large employment centers along the Front Range.

ECCOG and Outback Express will continue to base one vehicle in the Simla and Kiowa area to provide demand responsive service to Elbert County residents. The population growth in Elizabeth and the western end of the Elbert County is anticipated to generate commuter trips and can be effectively directed to rideshare options.

Other Issues

Alternative Fuels. Always a consideration, alternative fuel vehicles would provide some air quality improvements for the region. However, the cost and possible reduced performance of the vehicles could outweigh any benefits that might be gained. The only location in the east central study area that may be considered for alternative fuel vehicles during the six-year period of this plan is northwestern Elbert County. This would become important if this area is included in any Denver metro non-attainment boundary.

ADA Compliance. According to ADA rules, the ECCOG existing fleet is not required to be fully accessible. This is because it provides demand responsive service as opposed to offering a fixed route schedule. Also the non-accessible vehicles have been essentially "grandfathered" for continuing use.

Any new vehicles are required to be in ADA compliance. Older vehicles that are being planned for major overhaul must also be brought into ADA compliance. However, there is an exemption process that would allow the purchase of non-accessible equipment if it can be shown that the system is providing the same level of service to people with disabilities as it does to others. Criteria for getting this exemption include establishment that service is equivalent in the following areas:

- Response time
- Fares
- Geographic service area
- Hours and days of service
- Restriction or priorities based on trip purpose
- Availability of information and reservations
- Constraints on capacity or service availability.

In order to qualify for continuing federal funding, CFR 37.77 requires that a Certificate of Exemption be on file with FTA Region 8 Office or with CDOT Transit Unit. This requirement is mentioned here as a reminder prior to the purchase of any new equipment without a wheelchair lift.

Technology. The computer equipment available to ECCOG management appears to be adequate to maintain the necessary transit records and to process the reports and documentation for the system. With prices of computer equipment coming down and system power going up, it will be important to plan for new equipment periodically. Currently, replacement every two to three years should be sufficient to remain current with technological advances.

The Internet has become more user-friendly and many people are expected to use it as a source of information. A web page could be developed for ECCOG at a relatively low cost. It could provide transit information as well as information on all the programs managed by ECCOG. A transit web page would be a good information source providing contact persons, phone numbers, trip schedules for shopping and recreation, fares, and any information related to the services that Outback Express provides. It is important to have a reliable Internet provider as well as to be committed to keeping the information current. Keeping information current can be accomplished in-house.

NECALG TRANSIT SERVICE ALTERNATIVES

Operating Service Alternatives

As with ECCOG, the basis for a transit-alternatives analysis for NECALG is a careful consideration of realistic service alternatives. Capital requirements, financial plans, and management options can then be developed to support the planned services. The following discussion evaluates both the opportunities for new services, as well as modification of existing services.

Maintain Status Quo

The first option to be considered is to maintain the current level of transit services in the six-county NECALG service area. Vans and wheelchair accessible mini-buses are based out of eleven of the region's communities. Local transportation service is provided to meal sites as well as transportation for essential shopping, errands, and medical appointments. Considerable service is provided to students in the various communities. Service for medical and other necessary appointments is provided to communities within the region and longer distances to the Front Range, primarily to Denver and Greeley. Several local assisted living centers and nursing homes continue to provide transportation to their residents, augmented with special trips by NECALG.

This alternative will continue to meet the immediate needs of the six-county region. Seniors and persons with disabilities will have transportation services to meal sites and medical appointments. School children and students at Fort Morgan Community College will continue to have services. Limited services will be available for recreational opportunities.

Maintaining the status quo will not meet the transportation needs of county residents located any distance outside the eleven communities where vehicles are located. The lack of scheduled service will not address the growing needs of employees commuting within the region. Growth in the employee sector increases the number of commuters between the large cities in the region as well as commuters to the Denver and Greeley areas for employment and medical purposes.

Modify Existing Service

Frequency of Service. A way to gauge frequency of service is to divide the total number of service hours by the number of days of service and the total number of vehicles. In 2002, the total number of service hours was reported as 35,192, the number of service days was approximately 250 (Monday through Friday, 52 weeks, minus holidays) and the number of vehicles was 35. The service hours per vehicle per day determined from that calculation is 4.02. This figure is higher than the vehicle utility of 2.97 that existed in 1999. Obviously, the 14 % increase in vehicle hours from 1998 to 2002 is a very positive step. Obviously, funding for additional operating hours is a major factor in not providing more service hours.

Span of Service. There are essentially two ways to increase the span of service. One is to increase in hours per day of the service and the other is to increase the number of days of the service. This means some form of service provided later in the evening and/or on the weekend. Either of these can be accomplished in this system, but the question becomes are they warranted and at what additional expense.

Hours of Operation. NECALG currently offers the following hours of service: Sterling – 6 to 6, Yuma – 7 to 4, Fort Morgan – 7 – 4:30, and Washington County – 8 to 5. The most likely need for additional service would be in the evening, after 6:00 p.m., for restaurants, sporting events, shopping, night classes and non-emergent medical transportation. The need for this service in the NECALG area will also be driven by the need for extended training to be offered at family centers in conjunction with various Welfare to Work programs. These programs often incorporate some sort of evening workshops.

Evening ridership, in more urban settings, is usually about 25% of the average hourly ridership. However, in this rural area, evening ridership would not be expected to reach even this figure of 25%. The previous Transit Element completed in 2001 assumed the 25% figure for evening ridership and even with that figure suggested that performance measures of an evening service would not be cost effective. Therefore, the implementation of evening service is not being recommended for this area in the short term. However, as the need for evening hour service to employers and the colleges in Sterling and Ft. Morgan increase, this alternative could be reconsidered. Also, trips for dialysis treatments are provided in Sterling and from Fort Morgan, Yuma, Holyoke, Julesburg and Peetz 3 to 6 times per week including Saturdays.

Days of Operation. Increasing the days of service basically means providing some service over the weekends. Service could be provided on either Saturday or Sunday, or it could be provided on both Saturday and Sunday. These trips could be recreational, shopping or local service such as church trips. Recreational or shopping trips are likely to be taken into one of the major metropolitan areas such as Denver or Greeley. Church trips would most likely be local service within a community. Reservations 24-hours in advance would make scheduling of drivers and vehicles more efficient. Currently drivers are available for Sunday trips only in Sterling.

One of the objectives of the NECALG is to create additional scheduled trips from the region into the Denver and Greeley regions. These trips would generate additional fares that should be established so that the fares recovered more of the operating costs of providing such trips.

Again the previous Transit Element indicated that weekend trips would not be as efficient as other County Express weekday services; therefore it was questionable that weekend service would be a viable alternative to increasing service. However, with the stated goal of adding scheduled service to the Denver and Greeley areas, the Board might want to consider a well defined pilot effort for a period of time. Such an effort should be done only following a survey of existing and potential riders of such a proposed service to determine if there would be demand for such long distance weekend services. NECALG needs to be sure that they don't lose the gains in performance measures that have been achieved in recent years.

Capital Facilities Alternatives

Replacement of Existing Fleet. Over the next six years of this planning period, 2005 – 2010, 25 of the vehicles in the NECALG fleet are scheduled for replacement. Approximately 12 vehicles are already overdue for replacement based on miles. This aging fleet was a major factor in the operating problems experienced by the former NECTA management. Table 5-3 presents a replacement schedule based primarily on the number of miles on the vehicle at the time of the study. Other factors should be taken into consideration when determining which vehicles should be replaced. For example, vehicles having the highest overall annual maintenance costs should be replaced first.

Table 5-3 Vehicle Replacement Schedule			
Year to be Replaced	Type of Vehicle	Mileage (as of 11/03)	Age at Replacement
2003	Dodge VC	24,777	2
2003	Ford/Goshen	269,392	17
2003	Ford Astra	247,861	9
2003	Chevy Lumina (2)	240,909 & 197,736	8 & 8
2003	Ford WA4	166,224	18
2003	Dodge Caravan	167,418	8
2004	Ford WA4	122,394	18
2004	Ford Supr.	184,917	13
2004	Ford WA4	157,151	9
2004	Ford Supr.	77,416	7
2004	Chevy Lumina	114,753	9
2005	Dodge Rio	78,549	6
2005	Ford Supr.	97,050	11
2005	Dodge Caravan	158,569	7
2005	Ford WA4	177,238	17
2005	Ford Supr.	146,881	10
2005	Ford Dia.	108,144	15
2005	Dodge Caravan	78,690	4
2006	Dodge Sedan	187,930	15
2006	Dodge Caravan	60,227	5
2006	Ford Dia.	204,168	18
2006	2 Dodge Caravans	83,800 & 69,402	5 & 5
2006	Dodge PV	46,553	7
2006	2 Dodge Caravan	86,111 & 87,597	5 & 5
2007	Ford Supr.	121,994	12
2007	Dodge VC	59,074	4
2008	Pontiac MV	120,152	10
2009	Ford PV	41,742	10
2009	Ford PV	58,988	10
2009	Ford PV	66,629	10
2009	Ford PV	77,511	10
2010	2 Ford Dia.	33,935 & 71,675	11 & 11
2010	Dodge VC	72,712	10
2010	Dodge VC	43,405	9
2010	Ford VC	22,253	9
2010	2 Ford Goshen	26,453 & 6,183	8 & 8
2010	Ford PV	17,264	7
2010	2 Ford VC	24,218 & 7,510	8 & 8
2006	Chev Lumina Maint. van	90,272	11

This is a conservative replacement schedule and the consultant team recommends accelerating the rate of vehicle replacement, as funding is available.

Bus Storage/Maintenance Facilities. Given the concentration of vehicles in Fort Morgan and Sterling, a bus storage and maintenance facility could be used to centralize service. Prior to consideration, it will be important to establish an accurate cost profile of the current system of maintaining vehicles. This will help in determining if a consolidated maintenance facility would be cost effective.

Transportation Demand Management. TDM consists of a wide range of programs and services that enable individuals to get around without driving alone. Included are alternative transportation modes like carpooling, vanpooling, transit, bicycling and walking, as well as programs that alleviate traffic and parking problems such as telecommuting, variable work hours, and parking management.

For NECALG, there are opportunities for utilizing vanpools with major employers locally and regionally. Affiliation with the VanGO program run by the North Front Range Transportation Planning Region would be helpful in these efforts, both locally and regionally.

Other Issues

Alternative Fuels. Alternative-fuel vehicles would provide some air quality improvements for the region, but the cost and reduced performance of the vehicles outweigh the benefits that might be gained. The only locations in the northeastern study area that may be considered during the six-year period of this plan are Fort Morgan and Sterling.

ADA Compliance. According to ADA rules, the NECALG existing fleet is not required to be fully accessible. However, any new vehicles are required to be in ADA compliance as well as any older vehicles that are being planned for major rehabilitation. Retrofitting older vehicles without lifts is not required.

According to ADA rules, the NECALG existing fleet is not required to be fully accessible. This is because it provides demand responsive service as opposed to offering a fixed route schedule, and the non-accessible vehicles are essentially "grandfathered" for continuing use.

County Express considers the minivan a cost-effective, rider-friendly vehicle for trips out of the region. They have adequate back up to provide a wheelchair accessible vehicle whenever necessary. It is important that prior to the purchase of any vehicle with a lift, that an Exemption Certificate be filed with the appropriate FTA agent. This exemption process allows the purchase of non-accessible equipment if it can be shown that the system is providing the same level of service to people with disabilities as it does to other. Criteria for getting this exemption include establishment that service is equivalent in the following areas:

- Response time
- Fares
- Geographic service area
- Hours and days of service
- Restriction or priorities based on trip purpose
- Availability of information and reservations
- Constraints on capacity or service availability

In order to qualify for continuing Federal funding, CFR 37.77 requires that a Certificate of Exemption be on file with FTA Region 8 Office or with CDOT Transit Unit. This requirement is mentioned here as a reminder prior to the purchase of any new equipment without a wheelchair lift.

Technology. The computer equipment available to NECALG's management appears to be adequate to maintain the necessary transit records and to process the reports and documentation for the system. With prices of computer equipment decreasing and the system power going up, it will be important to plan for new equipment periodically. Currently, every two to three years should be sufficient to remain current with technological advances.

The Internet has become more user-friendly and many more people are expected to use it to find information. NECALG currently has a web site that informs Internet users of the many advantages of living and working in Northeastern Colorado. There is a transportation page, but unfortunately it only addresses the transport of freight in and out of the northeastern region. The consultant team suggests that attention be given to the development of a County Express page under the transportation section. This page could be used to inform Internet users of the many transit opportunities that are available to residents and visitors in Northeastern Colorado.

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CHAPTER 6: LONG RANGE TRANSIT ELEMENT

The Eastern Transportation Planning Region is a challenging environment for public transportation due to the distinct extreme rural nature of the area and in most cases scattered development. Funding and land-use development patterns are major constraints to transit growth in the region. One constraint is due to transit operations being dependent on federal transit funds and the lack of dedicated local funding in the study area. A second constraint is the low-residential density of all the 10 counties (Morgan County being included in the Transit Element Update) combined with scattered work destinations, which limit the ability of traditional transit service to efficiently serve large numbers of people.

To identify a long range Plan, the following questions must be answered: what people currently use the existing transit services? Who uses the services? And what keeps others from doing so? There are many reasons why people choose their automobile over the transit service. Many of the future transit services would operate longer hours, run more frequently, and extend service areas. That is expensive, particularly in the early years as ridership builds, but a fast, frequent, and reliable transit system would attract all market segments to the service.

It needs to be understood that transit services cannot come close to paying for themselves. There is justification for public support given the benefits transit projects provide in providing transportation for those in need of it, reducing traffic, and improving the environment.

Regional Needs – Preferred Plan

The two primary providers of transit service in the eastern TPR, Outback Express and County Express have identified operational and capital projects for the next 26 years to address long-range transit needs. The projects discussed in the following pages are the 2030 Long-Range Preferred Plan for the Eastern TPR, not the Constrained Plan. The Long-Range Constrained Plan is presented later in the chapter. The Preferred Plan is based on *unrestricted* funding for the transit providers. The submitted projects include costs to maintain the existing system and also projects that would enhance the current transit services. All of the projects are eligible for transit funding.

Under TEA-21, transportation plans must show the ability to fund all proposed projects. The Eastern TPR has focused on projects that maintain the existing services and provide replacement vehicles required to provide those services. The available funding is expected to be far short of meeting all the identified needs. Therefore, it is important to provide a Preferred Plan not constrained by financial resources. Projects in the unconstrained list could be advanced through the amendment process to the Constrained Plan, if new funding sources are identified.

Under this arrangement, decision makers have flexibility to consider new projects and to respond to funding opportunities that may present themselves in the future. Tables 6-1 and 6-2 present totals for the long-range transit projects. The transit projects for the region for the next 26 years have an estimated cost of over \$39.0 million dollars (\$10.6 million for Outback Express and \$28.4 million for County Express). This total includes operational and capital costs of the preferred program; knowing that funding required to provide the existing plus enhanced services is not at this time available.

Table 6 – 1 Outback Express Long Range 2005 – 2030 Preferred Plan		
Project Description	Ave. Annual Cost(Costs in 2005 dollars)	26-Year Cost
Operating (Maintain Existing Services)	\$246,000	\$6,396,000
Capital Replacement (To Maintain Existing Services)	\$83,500	\$2,171,000
Provide Front Range Scheduled Service #	\$60,000	\$1,560,000
Provide Saturday Service ##	\$15,000	\$390,000
Subtotal	\$404,500	\$10,517,000
Funding sources		
Fares/Donations	\$43,000	\$1,118,000
FTA Section 5310	\$66,000	\$1,565,325
FTA Section 5311	\$131,000	\$3,053,889
Local Sources	\$157,000	\$4,082,000
Other Grants/Contracts	\$9,000	\$234,000
Subtotal	\$406,000	\$10,053,214
Reserve	\$1,500	\$39,000
# It is estimated that 60% of this service to the Front Range would be covered by fares; the remainder would be picked up by local governments.		
## It is estimated that only 20% of this weekend service would be covered by fares; the remainder would be picked up by local governments.		

Table 6 – 2 County Express Long Range 2005 – 2030 Preferred Plan		
Project Description	Ave. Annual Cost (Costs in 2005 dollars)	26-Year Cost
Operating (Maintain Existing Services)	\$704,000	\$18,304,000
Capital Replacement (To Maintain Existing Services)	\$220,000	\$5,720,000
Add Scheduled Service between Sterling and Ft. Morgan *	\$60,000	\$1,560,000
Add Scheduled Service within Morgan County **	\$40,000	\$1,040,000
Add Regularly Scheduled Services to Front Range ***	\$60,000	\$1,560,000
Subtotal	\$1,084,000	\$28,184,000
Funding Sources		
Fares/Donations	\$151,000	\$3,926,000
FTA Section 5309	\$98,400	\$2,520,982
FTA Section 5310	\$88,000	\$2,086,937
FTA Section 5311	\$222,000	\$5,175,282
Title III/Medicaid	\$70,000	\$1,820,000
Local Sources	\$274,000	\$7,124,000
Other Grants/Contracts	\$191,000	\$4,966,000
Subtotal	\$1,094,400	\$27,619,201
* # It is estimated that 40% of the cost of this service between the two communities would be covered by fares; the remainder would be picked up by the local governments.		
** ## It is estimated that 40% of the cost of this service within Morgan County would be covered by fares; the remainder would be picked up by the local governments.		
*** ### It is estimated that 60% of this service to the Front Range would be covered by fares; the remainder would be picked up by local governments.		

Funding Plan – Financially Constrained

This section of Chapter VI presents the funding plan for the Eastern TPR Long-Range Financially Constrained Plan. The revenue projections are presented along with alternative funding sources to be pursued by the agencies within the region. This Financially Constrained Plan relies on the funding sources that are currently being used by the transit agencies or are likely to be realized over the planning horizon.

CDOT's Office of Financial Management and Budget have provided control totals for the 26-year period for FTA's 5309, 5310, and 5311 programs to each TPR. The corresponding control totals to be used for the Constrained 26-year Long Range Eastern TPR Transit Element are as follows:

- FTA Section 5309 - \$2,520,982
- FTA Section 5310 - \$3,652,262
- FTA Section 5311 - \$8,229,171

These control totals are based on historical allocations of FTA funds to the Eastern TPR over the years 1999 – 2004 and represent 2005 dollars. The potential FTA funding levels in the pending reauthorization of Federal Transportation Funding legislation are not reflected in these control totals and it is recommended that these constrained control totals be reviewed and revised if significant funding increases occur during reauthorization.

Funding for transit services within the region will come from federal and local (public and private) sources. The Transportation Equity Act for the 21st Century (TEA-21) is the current legislation guiding the federal transit program. Under TEA 21, the Federal Transit Administration administers formula and discretionary funding programs that are applicable to the Eastern TPR. Currently, no state funding is available for transit services across the State of Colorado. Senate Bill I will result in state funding for transit, but no funds are anticipated for several years due to the existing budget crisis within the state. The following text provides a short description of other existing funding sources.

FTA 5309 Discretionary Funds

Established by the Federal Transportation Act of 1964 and amended by the Surface Transportation Assistance Act of 1978 and the Intermodal Surface Transportation Efficiency Act of 1991, this program provides capital funding assistance to any size community. The Federal Transit Administration (FTA) administers the program. The funds are available to public transportation providers in the state on a competitive discretionary basis, providing up to 80 percent of capital costs. These funds are generally used for "big ticket" major capital investment projects, such as modernization of a fleet and expansion plans. Competition for these funds is fierce, and generally requires lobbying in Washington, DC and receiving a congressional earmark.

It should be noted that in recent years the transit agencies in Colorado have submitted requests for projects through a statewide coalition-CASTA. The majority of transit agencies in the Eastern Region belong to CASTA. It is encouraged for all agencies to join the coalition.

FTA 5310 Elderly and Persons with Disabilities Capital Funds

This program is administered by the Colorado Department of Transportation and provides funds to private, nonprofit agencies that transport elderly and disabled persons. The funds are available on a discretionary

basis to support 80 percent of capital costs such as vehicles, wheelchair lifts, two-way radios, and other equipment.

FTA 5311 Capital Administrative and Operating Funds

Established by the Federal Transportation Act of 1964 and amended by the Surface Transportation Assistance Act of 1978 and the Intermodal Surface Transportation Efficiency Act of 1991, this program provided funding assistance to communities with a population of less than 50,000. The Federal Transportation Administration (FTA) is charged with distributing federal funding for "purposes of mass transportation."

The program is also administered by the Colorado Department of Transportation. The funds are available to public and private transportation providers in the state on a competitive, discretionary basis to support up to 70 percent of the net administrative costs, 80 percent of capital, and up to 50 percent of the net operating deficit. Use of this funding requires the agency to maintain certain records in compliance with federal and state requirements. Most of the funds are apportioned directly to rural counties based upon population levels. The remaining funds are distributed by the DOT on a discretionary basis, and are typically used for capital purposes.

Other Federal Funds

A wide variety of other federal funding programs provide support for elderly and handicapped transportation programs. Some of these are currently being utilized in the region and others can be explored further, including the following:

- Retired Senior Volunteer Program (RSVP)
- Title IIIB of The Older Americans Act
- Medicaid Title XIX
- Veterans' Affairs
- Job Training Partnership Act (JTPA)
- Temporary Assistance for Needy Families (TANF)
- Developmental Disabilities
- Housing and Urban Development (Bridges to Work and Community Development Block Grants)
- Head Start
- Vocational Rehabilitation
- Health Resources and Services Administration
- Senior Opportunity Services
- Special Education Transportation
- Rural Enterprise Community Grants, Agriculture Department
- Department of Commerce, Economic Development and Assistance Programs
- Access to Jobs/Reverse Commute Program

State Funding Sources

The Colorado Legislature passed legislation that will provide state funding for public transportation under House Bill 1310. House Bill 1310 requires that 10 percent of funds raised under Senate Bill 1 be set aside for transit-related purposes. Due to existing shortfalls in the State's budget, funds under this legislation are

not anticipated until 2007 to 2009. Potential funding from this source could be as much as \$25 million per year statewide.

Local Transit Funding Sources

A variety of local funds are available in the Eastern TPR. Examples of local support that could be used for transit include the following: voluntary assessments of municipalities and counties; contributions by major business associations; and taxes (sales tax, lodging tax, property tax, fuel tax, real estate tax). Local agencies benefit from business support in the form of advertising. These and other local funding sources are discussed below.

General Fund Appropriations: Counties and municipalities appropriate funds for transit operations and maintenance and for transit capital needs. Funds to be appropriated come generally from local property taxes and sales taxes. It is unlikely voters would vote to increase these taxes. Competition for such funding is severe and local governments generally do not have the capacity to undertake major new annual funding responsibilities for transit.

Advertising: One modest but important source of funding for many transit services is on-vehicle advertising. The largest portion of this potential is for exterior advertising, rather than interior "bus card" advertising. The potential funds generated by advertising placed within the vehicles are comparatively low.

Voluntary Assessments: This alternative requires each participating governmental entity (the cities and counties) and private businesses to contribute to funding of the system on a year-to-year basis. This alternative is common for areas that provide regional service rather than service limited to a single jurisdiction. An advantage of this type of funding is that it does not require voter approval. However, the funding is not steady and may be cut off at any time.

Private Support: Financial support from private individuals or businesses could provide support to the transit systems within the TPR. Major employers in the TPR are potential sources of revenue.

Ad Valorem Property Taxes for Capital Projects: Counties are authorized (Sec. 39-13-103) to impose property taxes for specific capital projects with voter approval.

Rural Transportation Authority: Legislation adopted in 1997 and amended in the 2000 session (CRS Sec. 43-4-603) provides authority for Colorado municipalities and counties (outside the RTD area) to establish RTAs. RTAs are able to impose a \$10 annual vehicle registration fee and, with voter approval, may levy a sales tax of up to one percent and/or a visitor benefit fee (fee added to the lodging rate within the area) of up to two percent of the price of overnight lodging. Local governments have considerable flexibility in designing the boundaries of RTAs, which may include all or a portion of the areas of participating jurisdictions. An RTA is a regional, multi-jurisdictional entity that becomes a separate subdivision of the state, but which operates pursuant to an intergovernmental agreement adopted by its member governments. This is a program that should be reviewed over time as a possible funding source for transit services within the TPR.

Special Districts: Colorado local governments also may create a variety of local districts including special districts (CRS Sec. 32-1-101), service authorities (CRS Sec. 32-7-101), municipal general improvement districts (CRS Sec. 31-25-601), county public improvement districts (CRS Sec. 3020-50 1), municipal special improvement districts (CRS Sec. 31-25-50 1), and county local improvement districts (CRS Sec. 30-20-60 1). In general, these districts are funded from fees or property taxes, with the exception of the county improvement district, which, with voter approval, may levy a sales tax of up to 0.5 percent. In general, these

districts are limited in their usefulness as mechanisms for funding transit systems, particularly in a multi-jurisdictional setting.

Financially-Constrained Plan

The following section presents the financially-constrained transit projects and the funding plan to implement those projects. The long-range projects include the continuation of existing services and a limited number of future transit projects. Table 6-3 and Table 6-4 show the estimated total for the existing services over the next 26 years is approximately \$31.8 million (\$8.2 million for Outback Express and \$23.6 million for County Express). This financially constrained plan is the basis for developing the Short Range Transit Element, presented in Chapter 7.

Table 6-3 Outback Express Long Range 2005 – 2030 Constrained Plan		
Project Description	Average Annual Cost (Costs in 2005 dollars)	26-Year Cost
Operating (Maintain Existing Services)	\$246,000	\$6,396,000
Capital Replacement (To Maintain Existing Services)	\$83,500	\$2,171,000
Subtotal	\$329,500	\$8,564,000
Funding Sources		
Fares/Donations	\$4,000	\$104,000
FTA Section 5310	\$61,750	\$1,565,325
FTA Section 5311	\$119,200	\$3,053,888
Local Sources	\$121,000	\$3,146,000
Other Grants/Contracts	\$9,000	\$234,000
Subtotal	\$314,950	\$8,103,213
Reserve	\$1,500	\$39,000

Table 6-4 County Express Long Range 2005 – 2030 Constrained Plan		
Project Description	Average Annual Cost (Costs in 2005 dollars)	26-Year Cost
Operating (Maintain Existing Services)	\$704,000	\$18,304,000
Capital Replacement (To Maintain Existing Services)	\$220,000	\$5,720,000
Subtotal	\$924,000	\$24,024,000
Funding Sources		
Fares/Donations	\$75,000	\$1,950,000
FTA Section 5309	\$98,400	\$2,520,982
FTA Section 5310	\$82,300	\$2,086,937
FTA Section 5311	\$202,000	\$5,175,282
Title III/Medicaid	\$70,000	\$1,820,000
Local Sources	\$190,000	\$4,940,000
Other Grants/Contracts	\$191,000	\$4,966,000
Subtotal	\$908,700	\$23,459,201

CHAPTER 7: SHORT RANGE TRANSIT ELEMENT

The Short Range Transit Element covers the years 2005 through 2010. These short-range plans are the basis for the operational plans of Outback Express and County Express within the Eastern TPR. CDOT uses the short-range transit element in evaluating transit grant applications submitted by the major m transit operators within the region.

ECCOG/Outback Express

Table 7-1 provides a year-by-year implementation plan for the six-year period from 2005 to 2010. Specific activities are described for the areas of service improvement, capital management, funding and marketing. These actives reflect the service and management recommendations made above.

Outback Express Short Range Six Year Transit Element Budget

A budget reflecting projected transit revenues, transit system expenses, and a transit capital expense is shown in Table 7-2. Most budget elements are escalated at an annual rate of 3%. Exceptions include farebox revenue that is escalated at 10% per year in order to begin to improve the farebox ratio recovery. It is assumed that FTA 5311 operating/administrative funding will not increase more than 3% per year. However, it is assumed that FTA 5310 capital funding will be able to supply 80% of the requested amount.

Table 7-1 ECCOG/Outback Express Six Year Transit Element Plan		
Year	Subject	Task Description
2005	Service Improvement	Continue services offered for efficiency and effectiveness including monitor coordinated trips
	Capital Management	Replace one vehicle; maintain Fleet Utility @ 20%
	Funding	Continue to solicit vanpool partners to fund new vans; increase farebox recovery by 20%
	Marketing	Develop Outback Express marketing program to promote special trips to targeted groups
2006	Service Improvement	Continue services offered for efficiency and effectiveness; develop relationship with for-hire carriers for regional "single-rider" trips
	Capital Management	Replace one vehicle; continue to maintain fleet utility @ 20%
	Funding	Continue to solicit vanpool partners to fund new vans; increase farebox recovery by 20%
	Marketing	Conduct general public survey to as an element of determining effectiveness of marketing efforts
2007	Service Improvement	Continue services offered for efficiency and effectiveness; evaluate possible inter-regional coordination with other transit providers
	Capital Management	Replace two vehicles
	Funding	Seek additional grant sources to sustain required revenues
	Marketing	Conduct survey of system users to determine customer satisfaction levels.

Table 7-1 ECCOG/Outback Express Six Year Transit Element Plan		
Year	Subject	Task Description
2008	Service Improvement	Continue services offered for efficiency and effectiveness; develop relationship with for-hire carriers for regional "single-rider" trips
	Capital Management	Replace one vehicle
	Funding	Seek additional grant sources to sustain required revenues
	Marketing	Conduct general public survey to as an element of determining effectiveness of marketing efforts
2009	Service Improvement	Continue services offered for efficiency and effectiveness; evaluate possible inter-regional coordination with other transit providers
	Capital Management	Replace two vehicles
	Funding	Seek additional grant sources to sustain required revenues
	Marketing	Conduct general public survey to as an element of determining effectiveness of marketing efforts
2010	Service Improvement	Continue services offered for efficiency and effectiveness; develop relationship with for-hire carriers for regional "single-rider" trips
	Capital Management	Replace one vehicle
	Funding	Seek additional grant sources to sustain required revenues
	Marketing	Conduct general public survey to as an element of determining effectiveness of marketing efforts

Table 7 - 2 ECCOG (Outback Express) Short Range Transit Element Budget 2005-2010 (\$ in thousands)						
	2005	2006	2007	2008	2009	2010
Transit Revenue						
Fares/Donations	4	4.40	4.84	5.32	5.86	6.44
FTA 5310	44	45.32	93.36	48.08	99.04	51.01
FTA 5311	131	134.93	138.98	143.15	147.44	151.86
Other Grants	9	9.27	9.55	9.83	10.13	10.43
Local Cash/ In-kind	105	108.15	111.39	114.74	118.18	121.72
Capital Cash	11	11.33	23.34	12.02	24.76	12.75
Total Revenue	304	313.40	381.46	333.14	405.41	354.21
System Expenses						
Operating	193	198.79	204.75	210.90	217.22	223.74
Administrative	53	54.59	56.23	57.91	59.65	61.44
Capital Expenses						
Veh. Replace./#	55 / 1	56.65 / 1	116.70 / 2	60.10 / 1	123.81 / 2	63.76 / 1
Computer Upgrade		2.00 / 1		2.00 / 1		2.00 / 1
Total Expenses	301	312.03	377.68	330.91	400.68	350.94
Total Revenue	304	313.40	381.46	333.14	405.41	354.21
Total Expenses	301	312.03	377.68	330.91	400.68	350.94
Reserve	3.00	1.37	3.78	2.23	4.83	3.27
Notes:						
- FTA 5310 Capital Funding at 80% of request.						
- FTA 5311 Operating/Administrative Funding at 3% annual increase over prior year award.						
- Farebox Revenue increased 10% per year to begin to improve Farebox Recovery Percentage.						

NECALG/County Express

Table 7-3 provides a year-by-year implementation plan for the six-year period from 2005 to 2010. Specific activities are described for the areas of service improvement, capital management, funding and marketing. These activities reflect the service and management recommendations made as part of the Recommended 2005 to 2010 Plan.

County Express Short Range Six Year Transit Element Budget

A budget reflecting projected transit revenues, transit system expenses, and transit capital expenses are shown in Table 7-4. Most budget elements are escalated at an annual rate of 3%. However, revenues from the Medicaid and Title III programs were only escalated at a rate of 2%. It is assumed that FTA 5311 operating/administrative funding will not increase more than 3% per year. NECALG is participating in the Colorado Transit Coalition process to receive funding from the FTA 5309 capital program to replace bus equipment. It is assumed that this process will continue to provide capital support. Any remaining capital needs are proposed for funding from the FTA 5310 capital funding program at 80% of the requested amount.

Table 7-3 NECALG/ County Express Six Year Transit Element Plan		
Year	Subject	Task Description
2005	Service Improvement	Continue services offered for efficiency and effectiveness; initiate Job Access Reverse Commute (Section 5309) program
	Capital Management	Replace four vehicles; continue to be involved in Colorado Transit Coalition/FTA 5309 process
	Funding	Continue to solicit vanpool partners to fund new vans
	Marketing	Initiate marketing effort to increase awareness of County Express and its services to public
2006	Service Improvement	Continue services offered for efficiency and effectiveness; develop relationship with for-hire carriers for regional "single-rider" trips
	Capital Management	Replace four vehicles
	Funding	Seek additional grant sources to sustain required revenues
	Marketing	Conduct general public survey to as an element of determining effectiveness of marketing efforts
2007	Service Improvement	Continue services offered for efficiency and effectiveness; evaluate possible inter-regional coordination with other transit providers
	Capital Management	Replace four vehicles
	Funding	Seek additional grant sources to sustain required revenues
	Marketing	Conduct general public survey to as an element of determining effectiveness of marketing efforts
2008	Service Improvement	Continue services offered for efficiency and effectiveness; develop relationship with for-hire carriers for regional "single-rider" trips
	Capital Management	Replace four vehicles
	Funding	Seek additional grant sources to sustain required revenues
	Marketing	Conduct general public survey to as an element of determining effectiveness of marketing efforts
2009	Service Improvement	Continue services offered for efficiency and effectiveness; evaluate possible inter-regional coordination with other transit providers
	Capital Management	Replace four vehicles
	Funding	Seek additional grant sources to sustain required revenues
	Marketing	Conduct general public survey to as an element of determining effectiveness of marketing efforts

Table 7-3 NECALG/ County Express Six Year Transit Element Plan		
Year	Subject	Task Description
2010	Service Improvement	Continue services offered for efficiency and effectiveness; develop relationship with for-hire carriers for regional "single-rider" trips
	Capital Management	Replace four vehicles
	Funding	Seek additional grant sources to sustain required revenues
	Marketing	Conduct general public survey to as an element of determining effectiveness of marketing efforts

Table 7-4 NECALG (County Express) Short Range Transit Element Budget 2005-2010						
Transit Revenue (\$ thousands)	2005	2006	2007	2008	2009	2010
Fares/Donations	75	77.25	79.57	81.95	84.41	86.95
FTA 5309	88	90.64	93.36	96.16	99.04	102.02
FTA 5310	88	90.64	93.36	96.16	99.04	102.02
FTA 5311	222	228.66	235.52	242.59	249.86	257.36
Title III/Medicaid	70	71.40	72.83	74.28	75.77	77.29
Co. & Muni. Govt.	190	195.40	203.00	209.83	216.88	224.11
Other Contracts	191	196.73	202.63	208.71	214.97	221.42
Total Revenue	924	951.72	980.27	1,009.68	1,039.97	1,071.17
System Expenses						
Operating	505	520.15	535.75	551.83	568.58	585.43
Administrative	199	204.97	211.12	217.45	223.98	230.70
Capital Expenses						
Veh. Replace./ #	220 / 4	226.6 / 4	233.40 / 4	240.40 / 4	247.61 / 4	255.04 / 4
Total Expenses	924	951.72	980.27	1,009.68	1,039.97	1,071.17
Total Revenue	924	951.72	980.27	1,009.68	1,039.97	1,071.17
Total Expenses	924	951.72	980.27	1,009.68	1,039.97	1,071.17
Notes:						
- FTA 5309 Capital Funding awards increase at 3% annually.						
- FTA 5310 Capital Funding at 80% of request adjusted for FTA 5309 award.						
- FTA 5311 Operating/Administrative Funding at 3% annual increase over prior year award.						
- Farebox Revenue increased 3% per year (% higher than previous Transit Element due to proposed marketing emphasis).						
- Medicaid and Title III Increase at 2% per year						
- Other Contracts (TANF, Foundations, United Way, Bus Advertising and Misc. Contracts) increase at 3% per year.						

APPENDIX A TRANSIT DEMAND ESTIMATE METHODOLOGY

Demand estimation is a very difficult task based on many uncertainties. One must first estimate how many people will be in a given area at some point in the future. Then one must determine how many of those people will use transit and how frequently they will use it if it is provided at a given level of service. The consultant team has identified eight possible methods/models that could be used for this task. There are some common elements to all the methods/models considered:

- All require good input data to produce consistent results
- All models use assumptions
- Any assumptions made by the consultants must be believable
- The cost of reliable input data rises as model complexity increases
- More data does not necessarily make for more certain estimates

Methods Not Used

The methods/models that were evaluated but not considered for further use were:

Zero Vehicle Population Method

This method requires calculations using the current and projected zero vehicle household population in persons. This information was available and accurate following the 1990 census, but there is no projection available for the change in person per household over time nor are projections available for the number of households without vehicles over time. This method is rejected because it would rely heavily on 1990 data that is now outdated and known to vary over time.

Regression Model for Zonal Demand

In this model extensive data is used to estimate transit demand. Things like race, zero-vehicle households and low-income households are available from the 1990 census, but are not projected at the county level or smaller. This model was developed for use with urban area traffic analysis zones and assumes that it is acceptable for application to rural and resort areas at the county level. This model is rejected because of several factors, including the determination that race is not a factor of transit use and the reliance on 1990 census data-

Transit Cooperative Research Program Method

This method is data intensive. The model as it stands, allows for some overlap and potential double counting. For these reasons, this method was not considered applicable to this project.

Land Use Trip Generation Method:

This method uses route segment length and transit trip generation data to calculate transit demand by route. Its applicability is tied to fixed-route services. There is no International Transportation Engineer Transit T-rip Generation Manual, as yet, and trip rates are very costly to develop independently. This method was not used for these reasons.

Modal Split Method

This method is based on total population and assumes 3.5 one-way trips per person per day and that a transit mode split of 0.21 %. The data needed to calculate using this method is readily available. This

method predicts the demand for all transit trips and requires a second method if the subsets of trip types, such as work trips or commute trips, need to be identified.

Model Form:

Total annual one way person trips = Total Population
 x 3.5 one way trips/person per day
 x 365 days per year
 x 0.21 % transit mode trips

R & R Method

This method is being used similarly to the above Survey Research Method. The projected age data needed to calculate demand using this method is available from the Colorado Department of Local Affairs, except for the availability of the age segregated mobility limitation data. We again used the percentages of mobility limited persons from the 1990 census, and applied it as above.

Model Form:

General Population Trips = Population under 60, w/o mobility limitations
 X 1 trip per person per year (on average)

Elderly/Disabled Trips = Pop. 60+ and pop. under 60 w/o mobility limits
 x 4 trips per person per year (on average)

Methods Used

The two methodologies that were used in the development of the transit demand and needs analysis for this update of the Eastern TPR Transit Element were the Survey Research Method (Mesa County, CO 1992) and the Employee Transit Use Method. The utilization of these two methods provides the TPR with a reasonable and rational projection of transit need for all potential transit users; general population, elderly population, disabled population and employees. A description of each methodology is provided below:

Survey Research Method (Mesa County, CO 1992)

This model was designed to predict local service in small to large urban areas. Other methods are needed to predict rural demand and commuter demand. The data needed to calculate the demand using this model is available except that there are no projections of mobility limited population or ability to segregate mobility limited elderly from mobility limited non-elderly. We used the percentages of mobility-limited elderly from the 1990 census and applied those percentages to the projected data from the Colorado Department of Local Affairs.

Model Form

General Population Trips = Population under 65, w/o mobility limitations
 x 6.5% of that population use transit
 x 0.02 round trips per day per person
 x 2 one way trips per round trips
 x 365 days per year

Elderly Population Trips = Population 65+, w/o mobility limitations

- x 7.6% of that population use transit
- x 0.04 round trips per day per person
- x 2 one way trips per round trip
- x 365 days per year

Disabled Population Trips = Mobility limited population all ages

- x 80% of that population use transit
- x 0.03 round trips per day per person
- x 2 one way trips per round trips
- x 365 days per year

Employee Transit Use Method

This model predicts only work trips. An additional model is needed to predict general demand or elderly/disabled demand. The employee data is available and the assumption was made that there are 2 daily work round trips on transit. This assumption can be adjusted if local data are available and indicate a significant difference from this assumption.

Model Form:

Total annual one way person trips for work = Total Employees

- x 0.21% employees use transit/day
- x 2 one way trips per day
- x 250 work days/year
(260 weekdays-10 holidays)

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APPENDIX B DATA USED IN CALCULATING TRANSIT NEED

Table B - 1 Year 2000 Data for Calculating Transit Need				
County	County Employment	Go Outside Home Disability	Elderly	General Population
Cheyenne	1,054	111	313	1,807
Elbert	10,777	692	960	18,220
Kit Carson	3,665	461	980	6,570
Lincoln	2,476	241	734	5,112
Sub-total	17,972	1,505	2,987	31,709
Logan	9,393	968	2,564	16,972
Morgan	11,888	1,191	3,082	22,898
Phillips	1,981	235	796	3,449
Sedgwick	1,321	183	547	2,017
Washington	2,361	280	746	3,900
Yuma	4,803	538	1,372	7,931
Sub-total	31,747	3,395	9,107	57,167
Total	49,719	4,900	12,094	88,876
Notes:				
<ul style="list-style-type: none"> - County Employment data and projections taken from Department of Local Affairs – Labor Force & Employment Projections for Colorado Counties - "Go-Outside-Home Disability" data taken from Colorado Department of Local Affairs, Demography Section – Disability Status : Quick Tables" - Elderly (65 and Older) and General Population (less than 65) taken from Colorado Department of Local Affairs, Demography Section – County Population forecasts – 10 Year Increments 				

Table B - 2 Year 2010 Data for Calculating Transit Need				
County	County Employment	Go Outside Home Disability	Elderly	General Population
Cheyenne	1,491	108	279	1,677
Elbert	16,999	1,022	2,060	25,251
Kit Carson	4,778	512	1,058	6,817
Lincoln	3,407	262	712	5,378
Sub-total	26,675	1,904	4,109	39,123
Logan	13,870	1,201	2,752	20,293
Morgan	16,593	1,485	3,271	27,628
Phillips	2,679	261	684	3,775
Sedgwick	1,524	205	488	2,180
Washington	2,414	297	798	3,834
Yuma	5,809	600	1,392	8,388
Sub-total	42,889	4,049	9,385	66,098
Total	69,564	5,953	13,494	105,221
Notes:				
<ul style="list-style-type: none"> - County Employment data and projections taken from Department of Local Affairs – Labor Force & Employment Projections for Colorado Counties - "Go-Outside-Home Disability" data taken from Colorado Department of Local Affairs, Demography Section – Disability Status : Quick Tables" - Elderly (65 and Older) and General Population (less than 65) taken from Colorado Department of Local Affairs, Demography Section – County Population forecasts – 10 Year Increments 				

Table B – 3 Year 2030 Data for Calculating Transit Need				
County	County Employment	Go Outside Home Disability	Elderly	General Population
Cheyenne	1,358	98	443	1,340
Elbert	25,553	2,119	7,205	49,435
Kit Carson	5,637	575	1,567	7,275
Lincoln	4,534	303	796	6,225
Sub-total	37,082	3,095	10,011	64,275
Logan	25,058	1,629	4,739	26,527
Morgan	28,329	2,200	5,710	40,078
Phillips	3,338	286	899	3,982
Sedgwick	2,001	232	545	2,470
Washington	3,026	312	992	3,872
Yuma	7,123	675	1,938	9,061
Sub-total	68,875	5,334	14,823	85,990
Total	105,957	8429	24,834	150,265

Notes:

- County Employment data and projections taken from Department of Local Affairs – Labor Force & Employment Projections for Colorado Counties
- "Go-Outside-Home Disability" data taken from Colorado Department of Local Affairs, Demography Section – Disability Status : Quick Tables"
- Elderly (65 and Older) and General Population (less than 65) taken from Colorado Department of Local Affairs, Demography Section – County Population forecasts – 10 Year Increments