

2006-2007 Transit Needs Assessment



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I. INTRODUCTION



\$3.8 million in Transportation Development Act (TDA) funds provided 802,078 transit trips for Shasta County residents in 2004/2005. These services, together with other non TDA-funded transit services, are intended to meet the primary transit needs within the county. Because transit in Shasta County is funded primarily with TDA revenues, only transit services that are reasonable to fund can be provided. Therefore, the existing transit system cannot meet 100 percent of the transit demand in the county. Shasta County encompasses 3,850 square miles, with 60 percent of the county population residing in the urban area cities of Anderson, Redding, and Shasta Lake. Public transportation is provided to these areas where services meet the “reasonable to meet” definition. The annual unmet transit needs review required by TDA is intended to determine what new transit needs, if any, can be reasonably funded using TDA funds.

The Shasta County Regional Transportation Planning Agency (SCRTPA) reviews unmet transit needs in accordance with Section 99401.5 of TDA. This review helps determine the amount of TDA funds to be allocated for transit services in each jurisdiction in the cities and county. The annual unmet transit needs review process involves the following three steps:

1. Perform a general assessment of transit needs within Shasta County jurisdictions;
2. Conduct a public hearing to consider specific unmet transit needs; and
3. Participation by the Social Services Transportation Advisory Council (SSTAC), including a recommendation to the SCRTPA.

Information gathered through this process is used by the RTPA to determine unmet transit needs, which are reasonable to meet. Appendix D directs citizens to the agency they can contact regarding transit issues.

This report contains the information for the first part of this three-step process — the general assessment of transit needs. TDA guidelines for this analysis are included as Appendix A to this report. The general assessment of transit needs consists of the following:

- Unmet Transit Needs and Reasonable to Meet Definition: Provides the definition and evaluation criteria adopted by the RTPA pursuant to TDA §99401.5(c).

- Transit Demand Analysis: Identifies the size and location of groups likely to be transit dependent or transit disadvantaged, including the elderly and disabled (TDA §99401.5 (B)(1)).

- Description of Existing Transit Services: Inventories existing public and private transit services in Shasta County, including paratransit. This inventory helps determine which transit needs are currently being served and sets the framework for the existing transit performance section discussed below.

- Existing Transit Performance: Reviews trends in ridership and farebox ratios for TDA-funded transportation services. This section identifies transit demands currently met by existing services (TDA §99401.5 (B)(2)).

- Transit Evaluation: Assesses potential TDA-funded transit services that would meet all or part of the transit needs, which are not currently met (TDA §99401.5 (B)(3)). Potential services are reviewed for consistency with established performance criteria such as reasonable to meet standards. Criteria to be used when considering expansion of these services are also provided in this section. Appendix E of this report presents a chronological history from 1999 to present detailing primary unmet need requests and RTPA responses and actions.

A. SUMMARY OF CONCLUSIONS

Public and private transit operators serve the primary areas of high transit demand, including specialized transit needs throughout the county. TDA-funded transit operators include the Redding Area Bus Authority (RABA) and Shasta Senior Nutrition Programs (SSNP), which operate senior transportation programs. SSNP is the designated Consolidated Transportation Services Agency (CTSA) and receives TDA funds under Article 4.5 PUC 99275. SSNP shall be referred to as the CTSA throughout this document.



The TDA-funded Burney Express and CTSA services currently meet the established performance standards, including those found in the unmet needs and reasonable to meet definitions described in the next section. While RABA did not meet the RTPA-established farebox ratio for 2004/2005, the RTPA has approved a temporary farebox ratio reduction to 15 percent in 2005/2006. RABA's farebox ratio, calculated from their State Controller Report information for the 2004/2005 fiscal years was 13.54 percent, falling below the RTPA required 19 percent. RABA has developed a 10-year financial plan that expects to meet the RTPA-established farebox ratio beginning in 2005/2006. Failure to meet farebox ratio is further discussed in Section VI. Transit Evaluation.

New or expanded services can be required under TDA when an unmet transit need is found reasonable to meet by the RTPA. The expansion criteria discussed in this report (see Section VI. Transit Evaluation) for each type of service should be utilized in determining whether a new service can be funded. Specific transit needs may be identified as a result of the unmet transit needs hearing process. These needs will be reviewed on a case-by-case basis.

B. METHODOLOGY

In 1995, the RTPA retained the services of transit consultant Leigh, Scott & Cleary (LSC) to build a framework for providing a general assessment of unmet transit needs in Shasta County based on available demographic information. This framework is detailed in the *Shasta County Transit Services Evaluation; Technical Memorandum Number One dated March 1995*. This framework was updated in the *July 2001 RABA Short- and Long-Range Master Transit Plan Study*, and is described in Section 3, Transit Demand Analysis. The method to determine transit demand is further presented in Appendix A-2 and A-3. The RTPA Board has approved funding in the 2005/2006 Overall Work Program (Federal Highway Administration Funds) to update this transit plan.

Transit demand information, together with current ridership trends and public hearing testimony on specific unmet needs, will be considered by the SSTAC and the RTPA in making the final determination regarding unmet transit needs that are reasonable to meet.

II. UNMET TRANSIT NEEDS AND REASONABLE TO MEET DEFINITION

Section 99401.5 of TDA statutes requires that the RTPA conduct an annual assessment of transit needs within each jurisdiction. This assessment consists of a two-part test: First, are there unmet transit needs? Second, are these unmet transit needs reasonable to meet? The SCRTPA has adopted the definitions shown below for unmet transit needs and reasonable to meet (Resolution 00-21, December 12, 2000).



UNMET TRANSIT NEEDS

An unmet transit need, under TDA, shall be found to exist only under the following conditions:

1. A population group in the proposed transit service area has been defined and located which has no reliable, affordable, or accessible transportation for necessary trips. The size and location of the group must be such that a service to meet its needs is feasible within the definition of reasonable to meet as set forth below.
2. Necessary trips are defined as those trips which are required for the maintenance of life, education, access to social service programs, health, and physical and mental well being, including trips that serve employment purposes.
3. Unmet transit needs specifically include:
 - a. Transit or specialized transportation needs identified in the transit system's Americans with Disabilities Act Paratransit Plan or short-range Transit Plan, which are not yet implemented or funded.
 - b. Transit or specialized transportation needs identified by the SSTAC and confirmed by the RTPA through testimony or reports, which are not yet implemented or funded.
4. Unmet transit needs specifically exclude:
 - a. Minor operational improvements or changes, involving issues such as bus stops, schedules, and minor route changes.
 - b. Improvements funded or scheduled for implementation in the following fiscal year.
 - c. Trips for any purpose outside of Shasta County, in accordance with PUC Section 99220(b).
 - d. Primary and secondary school transportation.

REASONABLE TO MEET

An identified unmet transit need shall be found reasonable to meet only under the following conditions:

1. It has been demonstrated to the satisfaction of the Agency that transit service adequate to meet the unmet need can be operated with a subsidy not to exceed 80 percent of operating cost in urbanized areas and 90 percent in non-urbanized areas. It must also have been demonstrated that fare revenues as defined in the State Controller's Uniform System of Accounts and Records can recover the

unsubsidized portion of operating costs. The Cost Allocation Method is the method used for determining fare box ratio (Appendix A-1). Appendix A-1 should be used as a guide to determine costs to be allocated to any proposed new services. Transit service subsidy maximums may be determined on an individual route or service area, or an individual proposed route or service area basis.

2. The proposed expenditure of TDA funds required to support the transit service does not exceed the authorized allocation of the claimant, consistent with Public Utilities Code Sections 99230-99231.2 and TDA Regulations Sections 6649 and 6655.

The fact that an identified need cannot fully be met based on available resources, however, shall not be the sole reason for finding that a transit need is not reasonable to meet.

3. The proposed expenditure shall not be used to support or establish a service in direct competition with an existing private service or to provide 24-hour service.
4. Where transit service is to be jointly funded by two or more of the local claimant jurisdictions, it shall be demonstrated to the satisfaction of the commission that the resulting interagency cost sharing is equitable. In determining whether the required funding equity has been achieved the commission may consider, but is not limited to considering, whether or not the proposed cost sharing formula is acceptable to the affected claimants.
5. Transit services designed or intended to address an unmet transit need shall, in all cases, make coordinated efforts with transit services currently provided, either publicly or privately.

III. TRANSIT DEMAND ANALYSIS

This section evaluates the transit demand in the county by census tract. U.S. census data provides the only countywide demographic information, and is broken down into smaller county sub areas. Important types of census information for evaluating transit needs include population density, elderly and mobility-impaired populations, and single-vehicle households. Shasta County is divided into 27 census tracts (see Map 1a, 1b on Page 6). Census tracts are generally smaller in urban areas where population densities are higher. Census data is collected every ten years, with the last census conducted in 2000.

Table 1 compares the 2004 and 2005 Shasta County population by jurisdiction. The 2005 countywide population increased 1.2 percent over 2004.

TABLE 1: POPULATION TRENDS				
	2004 Population	2005 Population	Percent Change	Estimated 2006 Population (Based on 1.2% population growth)
ANDERSON	10,050	10,441	3.7%	10,566
REDDING	87,300	88,459	1.3%	89,520
SHASTA LAKE	10,050	10,204	1.5%	10,326
UNINCORPORATED	68,300	69,093	1.1%	69,922
TOTAL COUNTY	175,700	178,197	1.2%	180,334

Figure 1 (Page 7) charts the Projected Transit Demand by Census Tract. These densities range dramatically between the high-demand, small-census tracts in Central Redding to the larger, low-population tracts in the outlying areas of the county. The highest demand density is Census Tract 107. The second highest demand density is Census Tract 108. This route serves Shasta College, Simpson University, Shasta View, Old Alturas/Dana Drive, and Churn Creek Road. All areas with substantial transit demand density currently have fixed-route service as identified with an asterisk (*) on the following figure. Map 5 (Page 8) details the census tract locations within Shasta County. Figure 2 on Page 9 represents the density by census tract within the county. Areas with an asterisk (*) represent areas served by transit.

EXISTING RIDERSHIP DEMAND

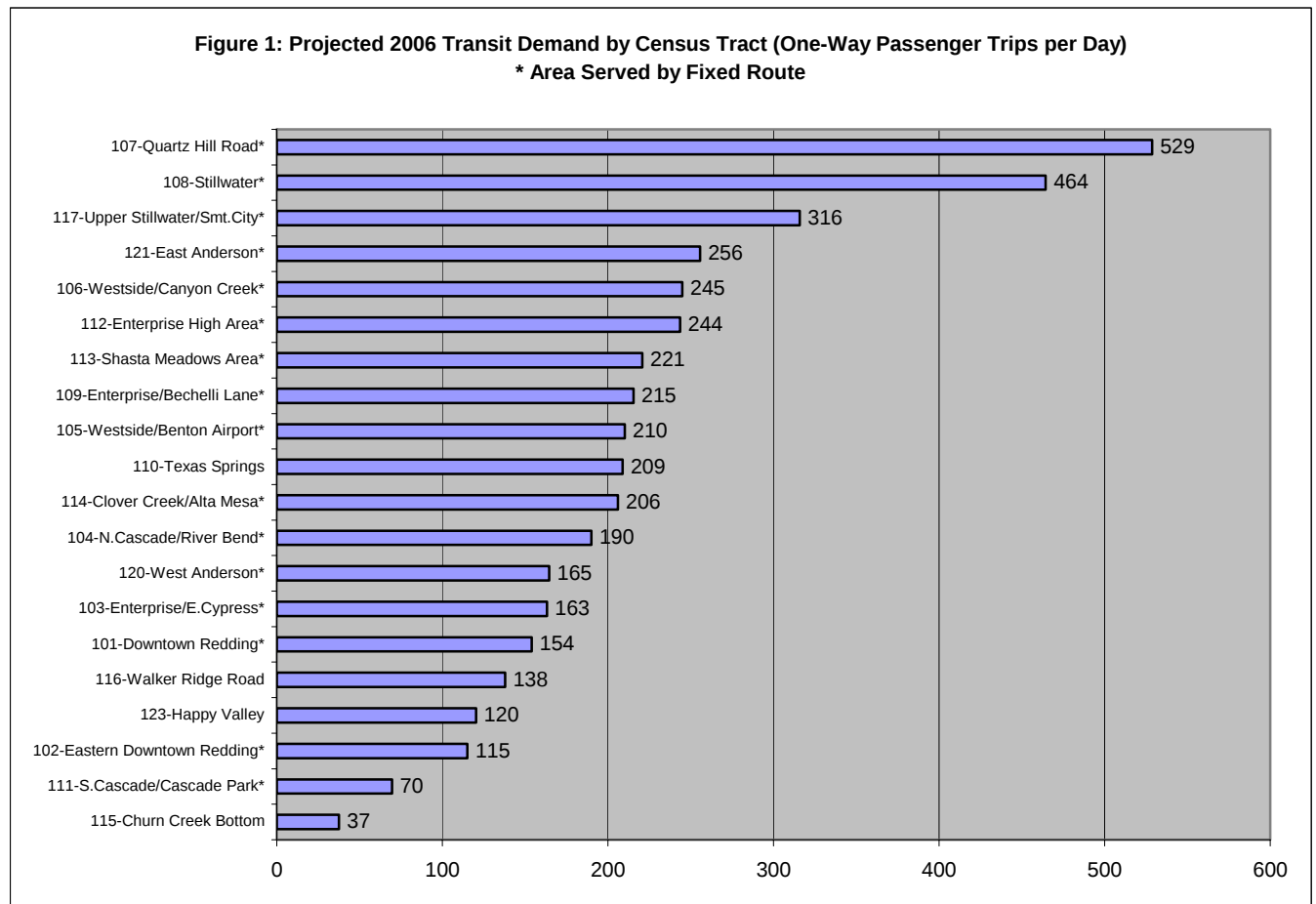
The first step in analyzing transit demand was to develop existing ridership figures. In the 2001 LSC report, ridership figures were collected and allocated to the various census tracts (see Map 5) that comprise the RABA service area. The 2000 U.S. Census Data regarding population figures and the California State Department of Finance's Population Estimate were used to allocate population to census tract. Only those portions of each census tract within the RABA service area were analyzed.

Allocating the total existing transit demand figures to individual census tracts based upon demographic data yields the estimated future demand presented in Figure 1 (Page 7). As shown, demand is particularly high in census tracts 107 and 108, comprising the northern and northeastern portions of Redding.

This map of Shasta County, California, illustrates the distribution of water rights. Key features include:

- Water Bodies:** Shasta Lake, French Gulch, Big Bend, Montgomery Creek, and Fall River Mills.
- Towns and Communities:** Lakehead-Lakeshore, French Gulch, Shasta Lake, Redding, Cottonwood, Anderson, Millville, Palo Cedro, Shingletown, Round Mountain, Burney, Big Bend, and McArthur.
- Highways:** State Routes 5, 299, 89, and 44.
- Water Rights Values:** Numerical values are placed across the county, including 125.00, 126.01, 127.01, 127.02, 127.00, 126.02, 124.00, 123.02, 122.00, 123.03, 119.00, 118.00, 117.00, 116.00, 115.00, 114.00, 113.00, 112.00, 111.00, 110.00, 109.00, 108.00, 107.00, 106.00, 105.00, 104.00, 103.00, 102.00, 101.00, 100.00, 99.00, 98.00, 97.00, 96.00, 95.00, 94.00, 93.00, 92.00, 91.00, 90.00, 89.00, 88.00, 87.00, 86.00, 85.00, 84.00, 83.00, 82.00, 81.00, 80.00, 79.00, 78.00, 77.00, 76.00, 75.00, 74.00, 73.00, 72.00, 71.00, 70.00, 69.00, 68.00, 67.00, 66.00, 65.00, 64.00, 63.00, 62.00, 61.00, 60.00, 59.00, 58.00, 57.00, 56.00, 55.00, 54.00, 53.00, 52.00, 51.00, 50.00, 49.00, 48.00, 47.00, 46.00, 45.00, 44.00, 43.00, 42.00, 41.00, 40.00, 39.00, 38.00, 37.00, 36.00, 35.00, 34.00, 33.00, 32.00, 31.00, 30.00, 29.00, 28.00, 27.00, 26.00, 25.00, 24.00, 23.00, 22.00, 21.00, 20.00, 19.00, 18.00, 17.00, 16.00, 15.00, 14.00, 13.00, 12.00, 11.00, 10.00, 9.00, 8.00, 7.00, 6.00, 5.00, 4.00, 3.00, 2.00, 1.00, 0.00.
- Shaded Areas:** Purple shaded regions indicate specific water rights areas, primarily located around Shasta Lake and along major creeks.

FIGURE 1: TRANSIT DEMAND BY CENSUS TRACT



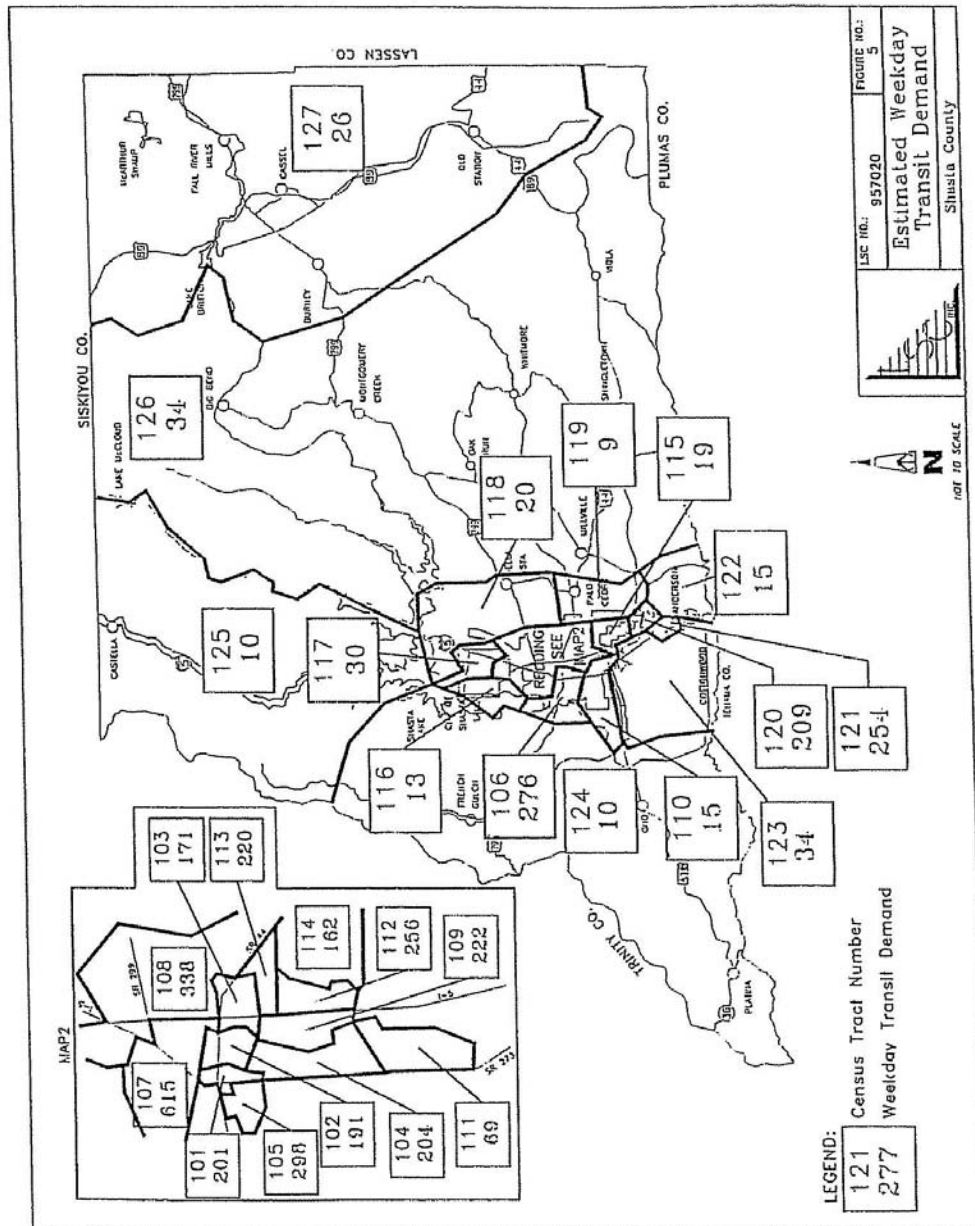
These figures are updated annually from the 2000 U.S. Census Data and 2001 LSC report using the countywide percent change from the Department of Finances E-1 Population Estimate for the current year.

FORECAST OF RIDERSHIP DEMAND

The demand for public transit services in the RABA service area is expected to increase over the next 20 years. It is expected that by the year 2025 the county population will reach 250,000, with the majority of population increases in the three urban areas.



Map 5:
Transit Demand by Census Tract



SOURCE: US Census Bureau - Census 2000
 GCT-PH1. Population, Housing Units, Area, and Density
 Shasta County by Census Tract

Figure 2: DENSITY BY CENSUS TRACT
 * = RABA Service Provided

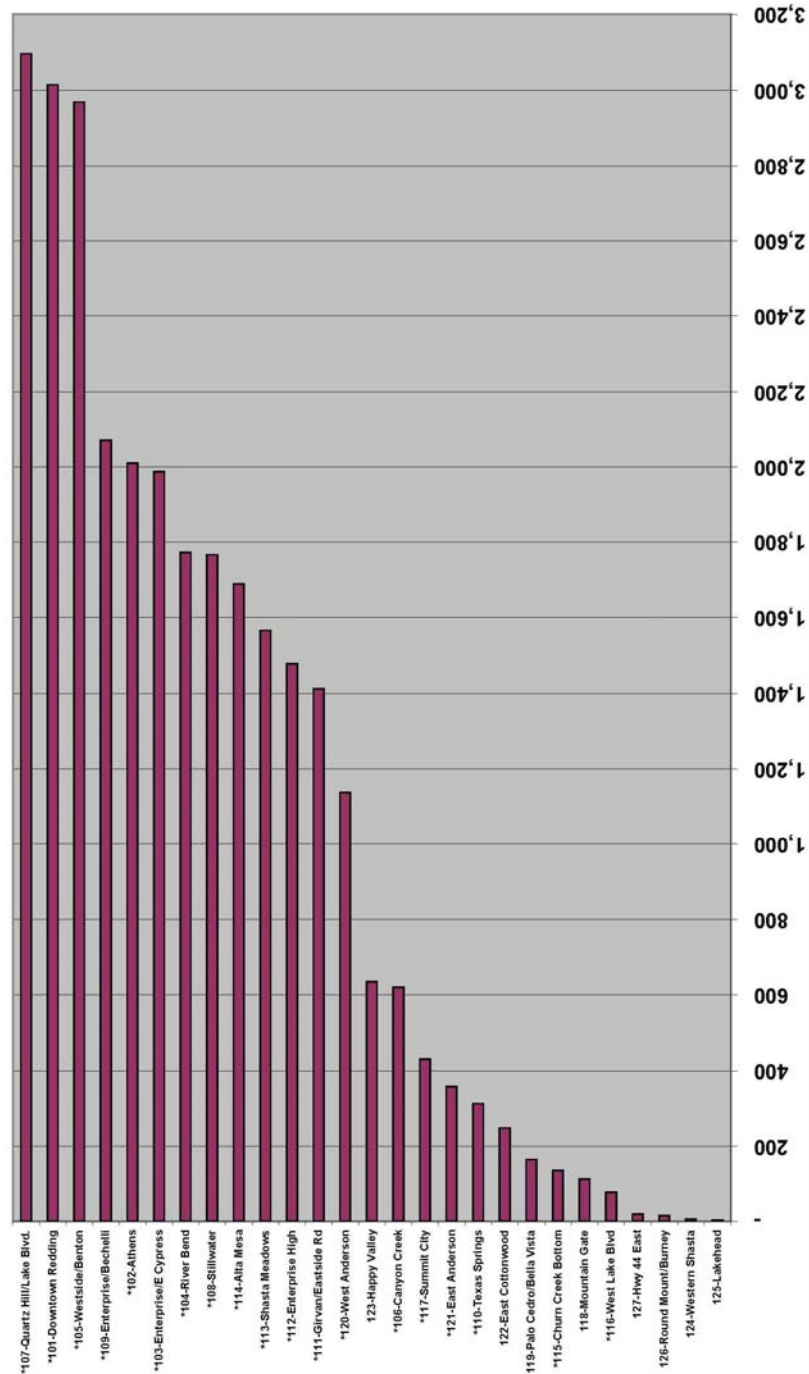


FIGURE 2: DENSITY BY CENSUS TRACT

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IV. DESCRIPTION OF EXISTING TRANSIT SERVICES

This section reviews the transit services available in Shasta County. Types of services available have been divided into two categories: TDA-funded services and non TDA-funded services. This distinction is made since the purpose of this report is to assist in allocating TDA funds. Appendix B details the prior years' schedule of TDA allocations.

A. TDA-FUNDED TRANSPORTATION SERVICES



1. REDDING AREA BUS AUTHORITY (RABA) SERVICES

RABA provides fixed route and demand-response service to the greater Redding Area. Fixed route and demand-response service is provided six days a week. Hours of operation are Monday through Friday from 6:30 a.m. to 7:30 p.m., and Saturday from 9:30 a.m. to 7:30 p.m. RABA provides express service to the Burney area on behalf of Shasta County.

Fixed Route: RABA operates 12 fixed routes within the cities of Redding, Shasta Lake, and Anderson. Some unincorporated fringe areas are also served. The service area covers approximately 100 square miles, from the City of Shasta Lake as the northern boundary to Anderson as the southern boundary. The eastern-most boundary is Shasta College, while the western boundary is Wisconsin Avenue off of Placer Street. Ten of the routes operate on one-hour headways using one vehicle apiece. Route 9 to Anderson operates on a 90-minute headway using two vehicles. In total, 12 vehicles need to be operating.

The following table represents routes and hours of operation:

TABLE 2: RABA FIXED ROUTE

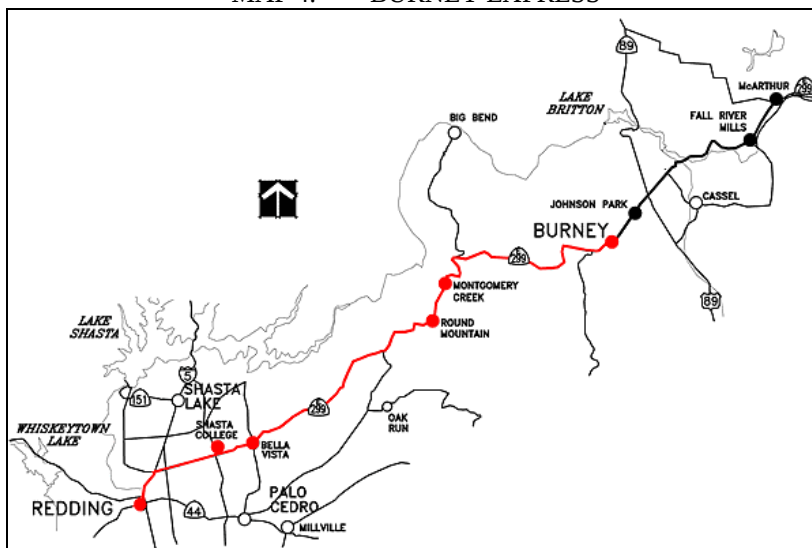
City	Route	Area	Hours
Anderson	Route 9		6:15am—7:15pm
Redding	Route 2	Eureka/Placer/Trinity	6:30am—7:30pm
	Route 3	Park Marina/Bonneyview/Railroad	6:30am—7:30pm
	Route 4	Bechelli/Churn Creek	6:15am—7:15pm
	Route 5	Hartnell	6:30am—7:30pm
	Route 6	Mt Shasta Mall/Victor	6:30am—7:30pm
	Route 7	Churn Creek/Shasta College	6:30am—7:30pm
	Route 11	Hilltop/Cypress	6:30am—7:30pm
	Route 12	Breslauer	7:00am—6:30pm
	Route 14	Market/Cypress	7:00am—7:30pm
Shasta Lake	Route 1	Redwood/Lake	6:00am—8:00pm



Demand Response: RABA's demand-response service provides curb-to-curb transportation to individuals who, because of a disability, are not able to use a regular fixed-route service. To be eligible for this service, passengers must apply and be accepted into the system. The service area is generally within three-quarters mile of the fixed routes, complying with the mandates of the Americans With Disabilities Act (ADA).

Burney Express: Offers express service into Redding from the outlying community of Burney. Aimed at commuters who typically live in Burney and work in the Redding area, Burney Express operates Monday through Friday with two round-trips each day. Express route services are provided by RABA on a contract basis on behalf of Shasta County.

MAP 4: BURNEY EXPRESS



RABA SERVICE CHANGES SINCE THE 2005/2006 UNMET TRANSIT NEED REVIEW:

Transportation Enhancements: A total of 149 benches have been placed within RABA's service area. This project was in conformance with the RABA's Short- and Long-Range Master Transit Plan Study by LSC Transportation Consultants, Inc., and funded by federal monies.

RABA has an agreement with a contractor to provide a bus shelter program. The contractor furnishes the shelters, performs any maintenance to keep them in good repair and working order, and performs weekly cleanup of each shelter location, at its expense. RABA receives 10 percent of the gross advertising revenues derived from any advertising placed by the contractor. To date, 36 shelters have been placed throughout RABA's service area.

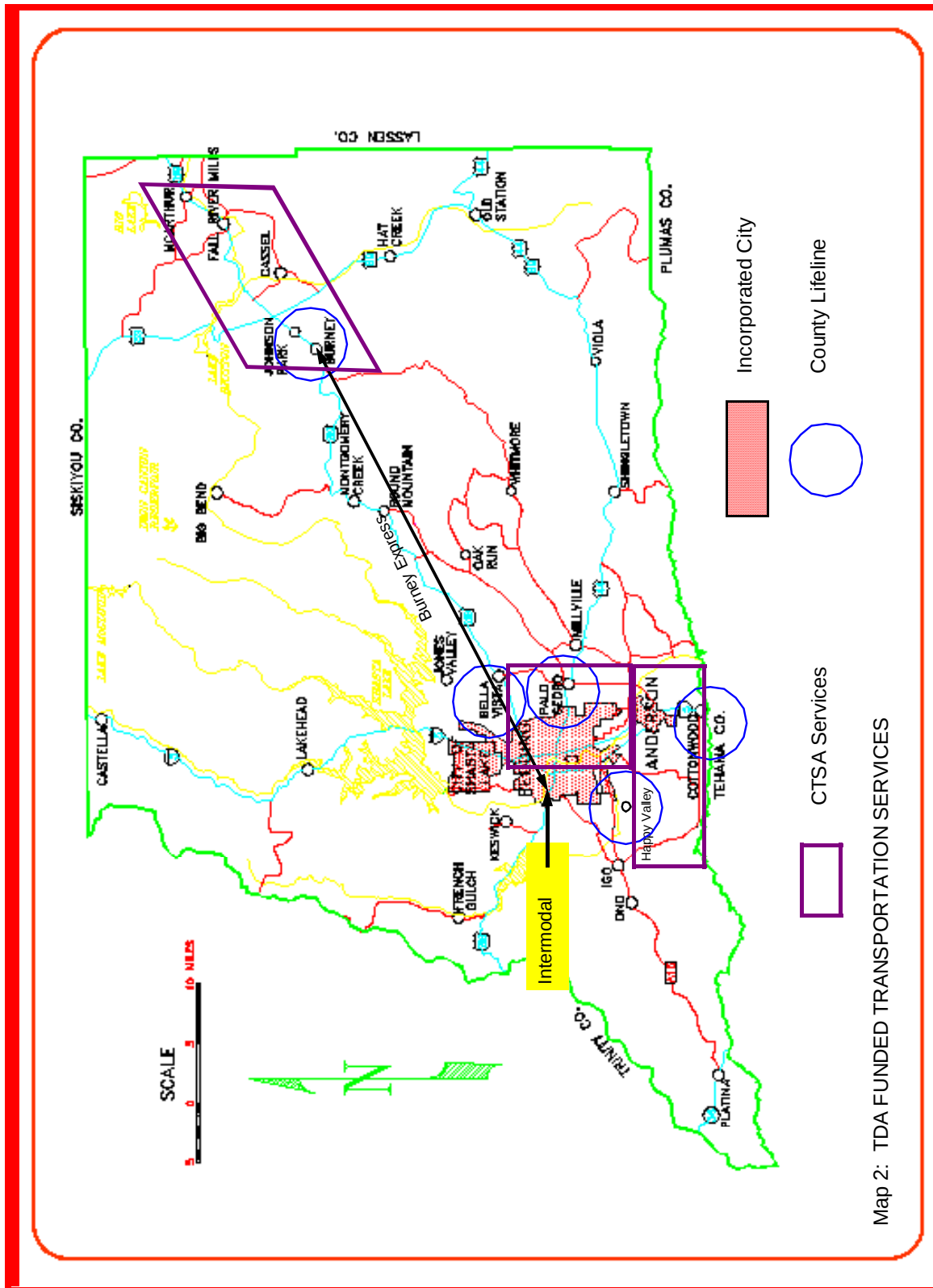
Passenger Amenities for the Year 2006: Work is in progress to place additional bus benches throughout RABA's service area using federal monies. All improvements and acquisitions of equipment are in conformance with RABA's Short- and Long-Range Master Transit Plan.

Maintenance Facility Improvements: Improvements to the existing maintenance facility programmed to begin in 2004/2005 were postponed due to funding uncertainties. This fiscal year the design and construction phase are scheduled to begin. Improvements will include

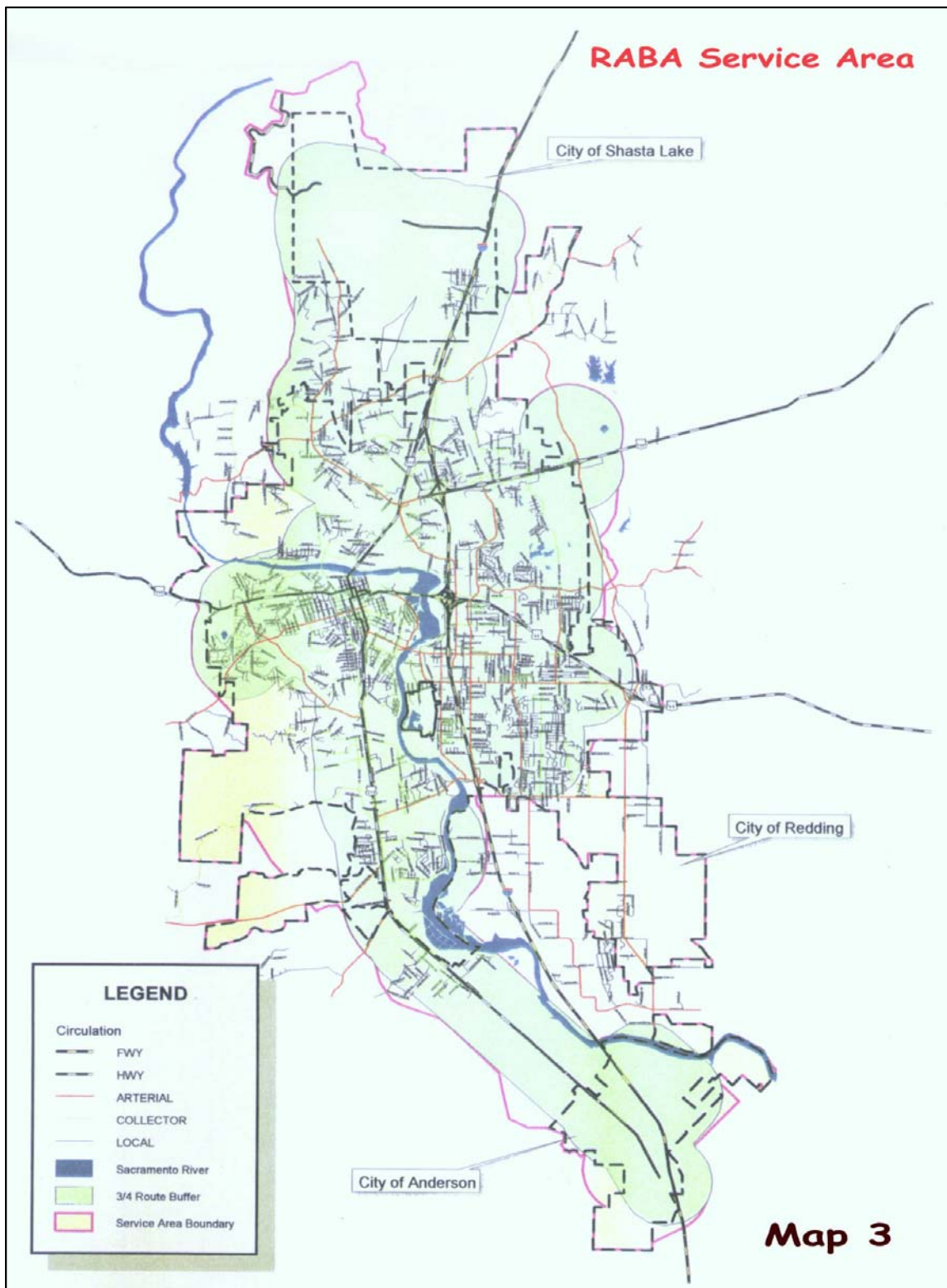
additional maintenance bays, parking areas for employees and the transit fleet, landscape features, and a vehicle vacuum area that will house additional components. The project will be funded primarily with federal monies and local match.

Service improvements: In 2005/2006, RABA will change Route 9 to an “Anderson-only route” and provide an express service between Redding and Anderson. Minor adjustments will be made to Routes 2, 3, and 4. Route 12 will be eliminated with Route 3 covering these bus stops. The changes utilize existing routes with no impacts to the annual operating costs. Performance measures are utilized to monitor the new express service and the various route modifications.

The electronic fareboxes and communication system will be upgraded to reflect current software upgrades. The electronic fareboxes were originally acquired in 1995 and the communication system was installed in 1996.



MAP 2: TDA-FUNDED TRANSPORTATION SERVICES



MAP 3: RABA SERVICE AREA

TABLE 3: RABA SERVICE SUMMARY				
Route	Route Length (miles)	Route Service Area	Round- Trip Time	Frequency
Fixed route				
1	19.2	MASONIC/OASIS/ASHBY/SHASTA DAM/CASCADE	1 hour	Hourly
2	19.3	Downtown/Pioneer/Airpark/Continental/ Placer	1 hour	Hourly
3	16.7	Downtown/Turtle Bay/Breslauer/Girvan/Ellis	1 hour	Hourly
4	14.7	Canby/Churn Creek/Hartnell/Larkspur/College View	1 hour	Hourly
5	12.0	Downtown/Hartnell/Bechelli	1 hour	Hourly
6	15.0	Downtown/Victor/Canby	1 hour	Hourly
7	18.0	Downtown/Canby/Shasta & Simpson Colleges/College View	1 hour	Hourly
8	16.9	Masonic/Cascade/Lake	1 hour	Hourly
9	33.0	Anderson	1 1/2 hour	2 buses – one leaving every hour
11	11.6	Downtown/Cypress/Canby/Masonic/No. Market	1 hour	Hourly
12	11.00	Downtown/Breslauer/Market	½ hour	Hourly
14	11.9	Downtown/Benton/Masonic/Hilltop/Cypress	1 hour	Hourly
Demand Response	N/A	Generally within ¾ mile of all fixed routes		
Burney Express	110 miles round trip			2 round trips daily

TABLE 4: TDA-FUNDED TRANSPORTATION PROVIDERS IN SHASTA COUNTY							
Service and Operator	Vehicles	Miles per Month	Passenger Trips per Month	Hours of Operation	Service Area	Fixed or Demand	Cost Per Trip
Fixed Route (RABA)	20 buses	61,839	58,361	Weekdays 6:30-7:30 Saturday 9:30-7:30 Times vary by route	Redding Anderson Shasta Lake area	Fixed	\$3.80
Demand Response (RABA)	20 lift equipped vans	32,445	5,554	Weekdays 6:30-7:30 Saturday 9:30-7:30	Redding Anderson Shasta Lake area	Demand	\$18.12
Subtotal (DR & FR)	40 vehicles	94,284	63,915				
Burney Express	2 lift equipped vans	4,711	439	Weekdays 6:00-7:00	Burney-Redding	Fixed	\$11.21
CTSA (SSNP)	9 small lift equipped buses	12,353	2,184	M-F 8-4:30	Shasta County (see table 5)	Demand	\$12.13
Shasta County Lifeline	1 lift equipped van	2,230	303	M-F 8-4:30	Burney, Johnson Park, Bella Vista, Happy Valley, Palo Cedro, Cottonwood	Demand	\$8.25

2. CONSOLIDATED TRANSPORTATION SERVICES AGENCY (CTSA) SERVICES

Shasta Senior Nutrition Program (SSNP) has been the designated CTSA since 1995. This allows SSNP to act as both the administering agency and service operator. The CTSA provides specialized services to those who cannot use conventional transit services, such as the elderly and mobility-impaired. By definition, CTSA services are designed to link intercommunity origins and destinations (TDA §99275). Table 5 below provides a description of CTSA service areas and hours of service.

TABLE 5: CTSA HOURS OF SERVICE AND SERVICE AREA		
ROUTE	HOURS OF SERVICE	AREA OF SERVICE
Route 2	8:00am - 3:30pm Monday-Friday	Airport Road, Churn Creek Bottom, East of I-5, and Balls Ferry Road (as schedule requires)
Route 3	8:00am - 4:30pm Monday-Friday	Burney Area—Doyles Corner, Johnson Park, Four Corners (as schedule requires)
Route 4	8:00am - 4:30pm Monday-Friday	Fall River Mills, McArthur, Cassel, to Burney and return
Route 6	8:00am - 4:30pm Monday-Friday	Happy Valley, Olinda, Cottonwood, to Anderson, Hwy 273 to Redding
Route 10	8:00am - 4:30pm Monday-Friday	Redding—Enterprise, Hartnell, Bechelli
Route 11	8:00am - 4:30pm Monday-Friday	Palo Cedro, Graystone Rd, Bella Vista, Deschutes Road
Frail and Elderly	8:00am - 4:30pm Monday-Friday	Cities of Redding, Anderson, Shasta Lake, and the unincorporated County areas

3. COUNTY LIFELINE SERVICES

County Lifeline Services were established by Shasta County effective July 1, 1996. Like CTSA services, Lifeline services are operated by SSNP. The service is intended to provide transportation services to and from medical appointments for the elderly and mobility-impaired in areas outside of the RABA service area. These areas include; Burney/Johnson Park, Bella Vista, Palo Cedro, Happy Valley, Cottonwood, and some areas of Redding. Table 4 on the previous page provides a summary of County Lifeline Services. It also compares the Lifeline Service to other TDA-funded services. The hours of service vary since the Lifeline Service is part of Snip's coordinated transportation system, which includes the CTSA services and other non TDA-funded programs.

B. NON TDA-FUNDED TRANSPORTATION SERVICES

The public and private transportation services throughout the county are varied. The available services are operated on limited schedules. A summary of these services is presented in Table 6 on the following page. SSNP is listed on both Table 4 and Table 6, since some of their programs are not TDA-funded and serve different transit needs from those served through their TDA-funded programs (i.e., CTSA and Lifeline services).

TABLE 6: NON TDA-FUNDED TRANSPORTATION PROVIDERS								
Agency	Vehicles	Miles/Mo	Passenger Trips/Mo	Hours of Operation	Service Area	# Of Clients	Fixed or Demand	Coordinating Participant
County Schools	11 lift equipped 8 vans 27 buses	54,900	N/A	M-F 5:00am- 5:30pm	Shasta	590	Both	N/A
Far Northern Regional Center	All Contract Services (ABC, Laidlaw, Etc)	N/A	25,000	M-F	Shasta Siskiyou Tehama, Lassen, Glenn, Butte, Modoc, Plumas, Trinity	5,400 Developmentally Impaired	Both	Yes
Golden Umbrella	1 minivan 1 8 psg van	2,044	N/A	M-F 8:00am- 4:00pm	Greater Redding area – rural and urban	4	Demand	Yes
Headstart	18 20 psg bus 2 22 psg bus	25,000	630	M-F 7:00am- 5:00pm	Shasta Siskiyou Trinity	780	Demand	Yes
Pit River Health Service	Information Not provided							
SSNP (PSA Services Only)	2 10/2 buses 2 lift equipped vans 4 vans	6,325	1,027	M-F 8:00- 4:30	Rural and urban areas	619	Demand	Yes
Shascade	2 minivans 4 mod van 2 med bus	15,000	7,800	M-F 7:00am- 4:30pm On call for evenings	Majority Shasta County – Avail. For medical purposes out of area	250 daily	Demand	Yes
Shasta College	9 lag buses (3/w lift) 2 sm bus/w lift 3 vans	12,000	3,150	6:00am- 6:00pm	Shasta Tehama Trinity	500/yr	Both	N/A
Redding Rancheria	Information Not provided							
Veterans Admin.	3 10 psg van 1 12 psg van 1 wchair van 2 sedans 1 minivan	4,000+	180+	5:30am- 5:00 pm	Shasta Siskiyou Trinity, Tehama Butte, Contra Costa, Yolo, Sacramento	3,000+ per year	Demand	N/A

V. EXISTING TRANSIT PERFORMANCE

This section examines trends in ridership and farebox ratios for TDA-funded transportation services. It also discusses funding limitations affecting current and future levels of transit service. Only TDA-funded services are reviewed, since the purpose of this report is to assist in allocating TDA funds.

Two terms are commonly used in this section: passenger trip and farebox ratio. They are important to understand when reviewing the information provided in this section and each term is discussed below.

Passenger Trip: A passenger trip is a one-way trip and is counted separately each time a passenger transfers. Passenger trips should not be confused with the number of riders. One rider typically accounts for two or more passenger trips each day.

Farebox Ratio: Farebox ratio is the fare revenue received divided by the cost of operating the service. Operating costs do not include fixed costs such as bus purchases. For example, if passengers pay 20¢ of every dollar spent to operate a service, the farebox ratio for that service is 20 percent (also expressed as 0.2). The farebox ratio is important for three reasons. First, funding penalties can apply where a minimum farebox ratio is not met. Second, minimum farebox standards are included in the RTPA definition of reasonable to meet transit services. Third, farebox ratio is the most commonly used measure of efficiency for a transit service.

A. REDDING AREA BUS AUTHORITY (RABA) SERVICES

FIXED ROUTE AND DEMAND RESPONSE

Performance of the RABA System has been evaluated in RABA's *Short- and Long-Range Master Transit Plan* prepared by LSC Transportation Consultants, Inc. dated July 2001. The document presents a review of demographic characteristics, growth forecasts, existing transit services, and future transit demand. The following incorporates 2004/2005 operating statistics and future demand. The *Short- and Long-Range Master Transit Plan* is scheduled for an update in 2005/2006.

2004-2005 Findings

The population of the RABA service area, based on the Department of Finance E-1 Population Report for 2005, was 114,462. The population for Shasta County increased 1.2 percent during 2005. Table 7 on the following page represents RABA's operating and financial statistics for 2004/2005.

TABLE 7: RABA– 2004/2005 OPERATING AND FINANCIAL STATISTICS

Performance Indicator	Fixed Route	FR Change from Prior Year	Comments	Demand Response	DR Change from Prior Year	Comments	TOTAL
Passenger trips	705,596*	Decrease 12,821	Decrease From Previous Year: 1.8%	66,645	Increase 1,420 Trips	Increase From Previous Year: 2.2%	772,241
Service Miles	798,602*	Increase 1,676 Miles	Passenger trips per service mile: .88	389,342	Increase 7,968 Miles	Passenger trips per service mile: .17	1,187,944
Service Hours	48,154*	Increase 126 miles	Passenger trips per service hour: 14.6	25,594	Increase 1,934 Trips	Passenger trips per service hour: 2.6	73,748
Expenses	\$2,681,393	Increase \$127,302	Per Passenger Trip Cost: \$3.80	\$1,207,691	Increase \$129,693	Per Passenger Trip Cost: \$18.12	\$3,889,084
Fares	\$428,218	Decrease \$26,330	Farebox Recovery: 15.97%	\$98,221	Decrease \$11,474	Farebox Recovery: 8.13%	\$526,439

- Fares: Combined farebox recovery = 13.54%.
- Fixed Route Per Passenger Trip Subsidy = \$3.19
- Demand Response Per Passenger Trip Subsidy = \$16.65
- * Burney Express is included in RABA's fixed route SCO report



BURNEY EXPRESS

Burney Express operates two routes twice daily between the Burney area and Redding. This is an express service for commuters with fewer stops than a fixed-route service.

Burney Express is funded through Shasta County's portion of TDA funds. This service continues to exceed the 10 percent minimum farebox requirement and has averaged a 19.23 percent farebox recovery over the past 12 months. Average ridership for 2004/2005 was 2.9 riders per hour.

B. CONSOLIDATED TRANSPORTATION SERVICES AGENCY (CTSA) SERVICES

SSNP, as the designated CTSA, provides transportation to the elderly. These combined services provide approximately 120 passenger trips per day. CTSA services are funded using TDA revenue before it is apportioned to jurisdictions ("off the top"). TDA funding is limited to 5 percent of the money available for apportionment (TDA §99233.7). CTSA services are not subject to farebox ratio requirements, but must meet certain performance standards. Passenger fare is a suggested donation of \$1.00 per trip.

CTSA services provided 26,202 trips at a cost of \$12.13 per trip, and a cost per service hour of \$27.49. The CTSA performance criteria is a TDA subsidy of less than \$15.00 per passenger trip, and the cost per hour shall not exceed \$35.00 per service hour. These amounts shall be adjusted for changes in the consumer price index.

TABLE 8: SSNP– 2004/2005 OPERATING AND FINANCIAL STATISTICS

Performance Indicator	2003/2004	2004/2005	Change from Prior Year	Percent Change
Passenger trips	26,403	26,202	Decrease 201 trips	.76% Decrease
Service Miles	143,755	148,233	Increase 4,478 Miles	3.1% Decrease
Cost Per Passenger	\$11.16	\$12.13	Increase Per Passenger \$.97	8.7% Increase
Cost Per Mile	\$2.05	\$2.14	Increase \$.09 per mile	4.4% Increase
Total Expenses	\$294,645	\$317,826	Increase \$23,181 Expenses	7.8% Increase

C. COUNTY LIFELINE SERVICES



Lifeline Services provide approximately 14 passenger trips daily. This service is currently funded voluntarily by Shasta County using TDA funds. This service is not subject to farebox requirements; however, it must meet performance requirements established by the County. Like the CTSA services, the system operates on a donation basis.

Lifeline Services, as part of SSNP's coordinated system, effectively serves specialized transportation needs in Burney,

Johnson Park, Cottonwood, Bella Vista, Palo Cedro, Happy Valley, and Redding. It provides approximately 3,635 trips annually at a cost of \$8.25 per trip.

D. CALWORKS TRANSPORTATION COORDINATION

CalWORKS is a state-mandated program designed to assist welfare clients to enter the work force. Transportation is one of the barriers for clients attempting to access training and work sites. The program requires that CalWORKS identify transportation resources for its clients. CalWORKS provides the following transportation assistance to qualifying clients:

- ◆ RABA Monthly Bus Passes
- ◆ Individual \$5.00 punch cards
- ◆ Mileage reimbursement (must have a valid drivers license, legal vehicle registration, and an insured vehicle)
- ◆ Community service clients can be picked up if they have no car and there is no bus service.

E. FINANCIAL ISSUES

Minimum Farebox Ratio:

Annually, the RTPA is required to review the farebox ratio for RABA services to determine funding eligibility pursuant to TDA regulations. The ultimate significance of farebox ratios is that RABA's eligibility for TDA funds is determined in large part by the required ratios. If RABA's actual fare revenues are less than the required ratio, RABA's TDA eligibility may not be increased to make up the difference.

The farebox ratio for RABA urban fixed route and demand-response services in 2004/2005 was 13.54 percent, failing to meet the RTPA farebox ratio of 19 percent. While RABA did not meet the RTPA established farebox ratio for 2004/2005, the RTPA has approved a temporary farebox ratio reduction to 15 percent in 2005/2006. RABA has developed a 10-year financial plan that expects to meet the RTPA established farebox ratio beginning in 2005/2006.

The next section provides a detailed discussion of farebox ratio requirements.

VI. TRANSIT EVALUATION

This section reviews the feasibility of expanding TDA-funded services, by type of service, to meet identified transit needs. Expansion of service can include increasing the level of services (e.g., expanded hours, more vehicles, or shorter headways) or expanding service to a new area. This section focuses on existing services and current operational information. New types of services may meet transit needs, but would need to be considered on a case-by-case basis depending on the method of funding and any required performance standards. Appendix E represents a chronological history from 1999 to present detailing primary unmet need requests and RTPA responses and actions.

Where an unmet transit need is found reasonable to meet according to the RTPA-adopted definition, transit funds are allocated. Existing transit services can also continue to receive TDA funds as long as they comply with the reasonable to meet standard (§99401.5 (e)). The RTPA is not required to provide funding for an unmet need if the need does not meet the RTPA-adopted criteria for reasonable to meet; however, jurisdictions may provide these services at their discretion using TDA funds or other revenue sources.

TABLE 9: PERFORMANCE CRITERIA

Redding Area Bus Authority (Fixed Route and Demand Response)	System-wide 19% farebox ratio requirement. Temporary reduction in 2005/2006 to 15%.
Burney Express	10% Farebox Ratio Requirement
Consolidated Transportation Services Agency	TDA subsidy of less than \$15.00 per passenger trip and a service hour cost not to exceed \$35.00 per service hour.
Lifeline	Voluntary – set by County
Vanpool	Voluntary

A. FIXED ROUTE / DEMAND-RESPONSE SERVICE



This service is currently an unmet transit need determined reasonable to meet by the RTPA (see RTPA adopted definitions and standards). RABA receives TDA funds under Article 4 (PUC 99260) of TDA law.

In 2003/2004 RABA's farebox ratio was 16.97 percent, which did not meet the 17.5 percent farebox ratio of the RTPA. During RABA's annual fiscal audit, deferred revenue was recognized, placing RABA in compliance with a 17.91 percent farebox ratio.

Based on information provided in the State Controller's Report submitted by RABA, the system-wide farebox ratio for fiscal year 2004/2005 was 13.54 percent, falling below the 19 percent farebox ratio required by the RTPA. Appendix C provides detailed farebox ratio calculations. Failure to meet farebox ratio places RABA in non-compliance under Section 99268.9 of TDA law. However, the first fiscal year for which an operator does not maintain the required ratio of fare revenues to operating cost is considered a grace year, and will not result in any penalty or loss of eligibility for funds under this article (99268.9 (b)). If RABA's farebox continues to fall below the required farebox ratio, this will result in a penalty or loss of eligible TDA funds.

While RABA did not meet the RTPA established farebox ratio for 2004/2005, the RTPA has approved a temporary farebox ratio reduction to 15 percent in 2005/2006. RABA has developed a 10-year financial plan that expects to meet the RTPA established farebox ratio beginning in 2005/2006.

Expansion Criteria: Expansion of fixed-route service should only be considered by the RTPA where a positive effect on farebox ratios can be demonstrated. A new transit service would need to generate at least 15 passenger trips per each new service hour or about 200 passenger trips a day to meet or exceed a 20 percent farebox ratio. Figure 1 on Page 7 shows census tracts in the county, which can generate this level of passenger trips. All census tracts exceeding 200 passenger trips per day are served by RABA fixed routes.

One or more of the following criteria should be used when considering an approval of an expansion or modification to a fixed-route service:

- ◆ Based on census group and block information and the methodology described in Section 3 and Appendix A-2 and A-3, the population density in the new service area would need to generate at least 200 passenger trips per day. This may need to be slightly adjusted periodically due to rising operating costs.
- ◆ The new transit service includes controls to reduce operating cost or increase fare revenues to maintain the current system average. Such services would be evaluated on a case-by-case basis to determine whether minimum farebox ratios can be met or exceeded.

B. BURNEY EXPRESS SERVICE

This service is currently an unmet transit need determined reasonable to meet by the RTPA adopted definitions and standards. The current service from Burney exceeds the 10 percent minimum farebox requirement for rural areas. There are no demand response requirements for express service. This system meets all criteria associated with the unmet transit need and reasonable to meet standards.

Burney Express provides service to a community of 3,500 people. Burney has community sewer and water service, which support urban-type densities. Many residents utilize Redding for services and some residents commute to Redding for employment and education.

Expansion Criteria: Since this service is currently considered “reasonable to meet,” express service from other outlying communities to Redding should only be considered where similar demographic conditions occur (i.e., total population, population densities, and demand for Redding services) as those found in the Burney area.

C. CONSOLIDATED TRANSPORTATION SERVICES AGENCY (CTSA) SERVICES

This is a community transit service funded “off the top” (apportioned from total available revenue prior to allocations for public transit and streets and roads) by the RTPA pursuant to TDA, Article 4.5. These services are not subject to unmet transit need and reasonable to meet standards. Funding is limited to 5 percent of the money available for apportionment countywide. Among other requirements, claims filed for community transit services must meet all of the following criteria:



- The service must link intracommunity origins and destinations (§99275(b)).
- The service is responding to a transportation need currently not being met in the community of the claimant (§99275.5(c)(1)).
- The service is integrated with existing transit services, where appropriate (§99275.5(c)(2)).
- The RTPA revised performance criteria for CTSA services in February 2005. The performance criteria established is a subsidy of less than \$15.00 per passenger trip, and the cost per service hour shall not exceed \$35.00 per service hour. These amounts shall be adjusted for changes in the consumer price index.

Expansion Criteria: Expansion can be considered by the RTPA provided the service meets the performance criteria for a community transit service as listed above. Expanded hours of operation or service to new areas are examples of expanded services that could be provided.

Finding: Community transit services must be provided at a TDA subsidy of less than \$15.00 per passenger trip, and the cost per service hour shall not exceed \$35.00 per service hour.

D. COUNTY LIFELINE SERVICES

This service is currently funded voluntarily by Shasta County and is not subject to unmet transit need and reasonable to meet standards. The existing agreement established by the county for this service sets minimum service standards regarding service areas, hours of operation, operating costs, and a minimum number of trips to be provided annually.

Expansion Criteria: Expansion of these services is at the discretion of the cities or county and not the RTPA. Individual jurisdictions may provide the service with TDA funds, or other funding sources, and set their own performance standards. Potential expansions to services could include new service in specified areas or expanding the frequency, days, or hours of service.

E. VANPOOLS

Vanpool service can be funded voluntarily. Vanpools are not necessarily subject to unmet transit need and reasonable to meet standards. Vanpools have been provided in Shasta County in the past. Policies can be established with minimum standards. Past policies have included the following:

- Commitment of a volunteer driver/coordinator and a minimum of four paying riders.
- Trip origins and destinations should be within Shasta County.
- The distance from origin to destination should be at least 25 miles.

Expansion Criteria: Like any other service provided at a jurisdiction's discretion, a vanpool service could be provided to meet other transit needs. Individual jurisdictions would adopt their own performance standards.

F. SUMMARY

Both CTSA services and the Burney Express meet the performance standards established by the RTPA. Limited funding is available to meet specialized transit needs through the CTSA. CTSA services are funded at the discretion of the RTPA Board.

RABA currently does not meet the established performance standards, including those found in the unmet transit needs and reasonable to meet definition. RABA expects to meet the established performance standards with the development of a 10-year financial plan.

New or expanded services can be required under TDA only when an unmet transit need is found reasonable to meet by the RTPA. The expansion criteria discussed in this report for each type of service must be utilized in determining whether a new service can be funded.

Due to a low farebox ratio in urban areas and rising operating costs, the ability to expand the fixed route/demand response system is limited at this time. If, however, new transit services are identified through the unmet needs process and can demonstrate improved farebox performance, there may be opportunities to provide additional fixed-route service.

APPENDIX A - UNMET TRANSIT NEEDS FINDING

Public Utilities Code Section 99401.5. Prior to making any allocation not directly related to public transportation services, specialized transportation services, or facilities provided for the exclusive use of pedestrians and bicycles, the transportation planning agency shall annually do all of the following:

- a. Consult with the social services transportation advisory council established pursuant to Section 99238.
- b. Identify the transit needs of the jurisdiction which have been considered as part of the transportation planning process, including the following:
 1. An annual assessment of the size and location of identifiable groups likely to be transit-dependent or transit-disadvantaged, including, but not limited to, the elderly, the handicapped, individuals eligible for paratransit and other special transportation services pursuant to Section 12143 of Title 42 of the United States Code (the federal Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12101, et seq.)), and persons of limited means.
 2. An analysis of the adequacy of existing public transportation services and specialized transportation services, including privately- and publicly- provided services necessary to implement the plan prepared pursuant to Section 12143 (c) (7) of Title 42 of the United States Code, in meeting the transit demand identified pursuant to paragraph (1).
 3. An analysis of the potential alternative public transportation and specialized transportation services and service improvements that would meet all or part of the transit demand.
- c) Identify the unmet transit needs of the jurisdiction and those needs that are reasonable to meet. The transportation planning agency shall hold at least one public hearing pursuant to Section 99238.5 for the purpose of soliciting comments on the unmet transit needs that may exist within the jurisdiction and that might be reasonable to meet by establishing or contracting for new public transportation or specialized transportation services or by expanding existing services. The definition adopted by the transportation-planning agency for the terms unmet transit needs and reasonable to meet shall be documented by resolution or in the minutes of the agency. The fact that an identified transit need cannot be fully met based on available resources shall not be the sole reason for finding that a transit need is not reasonable to meet. An agency's determination of needs that are reasonable to meet shall not be made by comparing unmet transit needs with the need for streets and roads.
- d) Adopt by resolution a finding for the jurisdiction, after consideration of all available information compiled pursuant to subdivisions (a), (b), and (c). The finding shall be that (1) there are no unmet transit needs, (2) there are no unmet needs that are reasonable to meet, or (3) there are unmet transit needs, including needs that are reasonable to meet. The resolution shall include development pursuant to subdivisions (a), (b), and (c) which provides the basis for the finding.
- e) If the transportation planning agency adopts a finding that there are unmet transit needs, including needs that are reasonable to meet, then the unmet transit needs shall be funded before any allocation is made for streets and roads within the jurisdiction.

APPENDIX A1 - COST ALLOCATION METHOD

Appendix A-1
Cost Allocation Method

TABLE 31: Recommended Service Modifications – FY 1995-96 Subsidy Impact Under Existing DAVE Contract												
Modification	Annual Impact of Modification					Total		Ridership		Impact on Annual Farebox Revenue	Change in Annual Subsidy Required Under DAVE Contract	
	Daily Vehicle Hours(1) Miles(2)	Vehicle Hours	Vehicle Miles	DAVE Contract Cost(s)	RABA Maintenance Costs	Marginal Operating Cost	Allocated Operating Cost(4)	Annual	Avg Day			
Provide Mid-day Burney Trip	2.5	0	640	0	\$13,436	\$0	\$13,436	2,000	8	\$3,500	\$9,936	
Reduce Dial-A-Ride Service Hours - Burney	-2.5	-8	(640)	(2,048)	(\$13,436)	(\$4511)	(\$13,887)	(400)	(2)	(\$400)	(\$13,487)	
- Palo Cedro/Bella Vista	-3.5	-24	(896)	(6,144)	(\$18,811)	(\$1,352)	(\$20,163)	(300)	(1)	(\$300)	(\$19,863)	
- Happy Valley	-1.5	-12	(384)	(3,072)	(\$8,062)	(\$676)	(\$8,738)	(300)	(1)	(\$300)	(\$8,438)	
Provide Service to Fall River Mills Using Burney DAR Vehicle	0.0	72	0	18,488	\$0	\$4,067	\$4,067	2,600	10	\$2,500	\$1,567	
Provide Shasta College-Northpoint Svc. Using Bella Vista DAR Vehicle	0.0	18	0	4,710	\$0	\$1,036	\$1,036	2,600	10	\$2,500	(\$1,464)	
Provide Cottonwood Service Using Happy Valley DAR Vehicle	0.5	30	128	7,578	\$2,687	\$1,687	\$4,354	3,100	12	\$1,100	\$3,254	
SUBTOTAL: Rural Services	-4.5	76	(1,152)	19,512	(\$24,186)	\$4,291	(\$19,895)	9,300	37	\$8,600	(\$28,495)	
Operate Route 8 on Lake Blvd.	0.0	-40	0	(11,574)	\$0	(\$5,324)	(\$5,324)	1,700	6	\$700	(\$6,024)	
Eliminate Route 9 to Cottonwood	-6.5	-96	(1,866)	(27,648)	(\$39,175)	(\$12,718)	(\$51,893)	(5,500)	(19)	(\$2,300)	(\$49,593)	
Implement Route 12 on S. Market St.	6.5	70	1,866	20,175	\$39,175	\$9,281	\$48,456	20,100	70	\$8,600	\$39,856	
SUBTOTAL: Urban Fixed Route	0.0	-66	0	(19,046)	\$0	(\$8,761)	(\$8,761)	16,300	57	\$7,000	(\$15,761)	
TOTAL	-4.5	10	(1,152)	465	(\$24,186)	(\$4,470)	(\$28,656)	25,600	94	\$15,600	(\$44,256)	
NOTE 1: Excluding deadhead travel, per existing DAVE contract.												
NOTE 2: Including deadhead travel, as RABA direct maintenance expenses are dependent upon actual miles travelled.												
NOTE 3: At \$20.944, the average of the 1995 and 1996 DAVE rates per vehicle-hour of service.												

NOTE 1: Excluding deadhead travel, per existing DAVE contract.

NOTE 2: Including deadhead travel, as RABA direct maintenance expenses are dependent upon actual miles travelled.

NOTE 3: At \$20.944, the average of the 1995 and 1996 DAVE rates per vehicle-hour of service.

NOTE 4: Allocated fixed costs by vehicle-hours of service.

APPENDIX A2 - METHOD TO DETERMINE TRANSIT DEMAND

The analysis presented below segments the potential ridership for RABA services into two categories:

- ⇒ General public trips; and
- ⇒ Mobility-Impaired trips

The analysis (Appendix A-3) yields estimates of the demand that could be expected given a high level of transit service for each category of ridership, and for each portion of the study area.

The first step is to review the demographic data available for the study area from the current U.S. Census.

Determine the Mobility-Impaired Ridership

Calculate the Mobility Impaired (MI) using the 16-64 years of age with a disability from the 2000 Census: Disability Status by Gender table by census tract.

The populations (P) are added together for each census tract to determine the total population for all census tracts (GPT). The current RABA State Controller's Report (SCO) for specialized transit Demand Response (DR) is the source for the total elderly or mobility-impaired ridership. The total annual passengers for demand response are used as the base to calculate Mobility Impaired (MI) calibrated transit trips (MIC).

The total calibrated transit trips for the Mobility Impaired (MI) is calculated using this formula:

Formula: MI for census tract: $MI / MI \text{ Total (MIT)} * \text{current DR SCO data} = \text{total Mobility Impaired calibrated trips (MIC)}$.

Example Census Tract 107: $1,293 / 16,522 * 65,225 = 5,104$ Calibrated Mobility-Impaired Trips (MIC).

Determine General Public Transit Trips

The General Public (GP) in each census tract is calculated by using the total population for the census tract minus the Mobility Impaired (MI) in the census tract.

Step 1: Calculate the general public by the total population for the census tract (P) minus the Mobility Impaired (MI) in the census tract for the sum of general public in the census tract.

Step 2: Subtract the total Mobility Impaired Total (MIT) population from the total Population (GPT)

Step 3: Divide Step 1 by Step 2 for to equal the factor for general public trips

Step 4: Multiply the factor by the RABA SCO Fixed Route (FR) trips for the calibrated general public trips per census tract (GPCT).

Formula: Calibrated General Public Trips $= (P - MI) / (GPT - MIT) * FR = \text{Total calibrated general public trips (GPCT)}$

Example Census Tract 107: $(10,879 - 1,293 = 9,586) / (122,433 - 16,522 = 105,911)$
 $9,586 / 105,911 = .09050 * 713,904 = 64,615$ General Public Calibrated Trips per Census Tract (GPCT)

The total calibrated transit trips (TT) per census tract are the sum of the mobility-impaired calibrated trips (MIC) plus the general public calibrated trips (GPCT) ridership in the tract.

Determining Annual Transit Trips Per New Census Tract

When applying this methodology to a new census tract first determine the calibrated trips per census tract using the transit demand method above. Calculate the annual transit trip per Mobility-Impaired (MI) persons per year by using the RABA Demand Response trips (DR) – divided by the total Mobility-Impaired (MIT) from the current census. This yields the total estimated (MIY) Mobility-Impaired trips per year. General public trips annual transit trips are calculated using the total calibrated general public trips from the RABA State Controller's Report Fixed Route trips (FR) divided by the total population for all census tracts (GPT).

The total Mobility-Impaired (MI) for the census tract is multiplied by Mobility-Impaired trips (MIY) per year to determine the number of calibrated trips for Mobility Impaired within the census tract (MIC).

General Public transit trips follow the formula of the total population in census tract (P) minus the Mobility Impaired (MI) in the census tract times the Public trips per year (GPY) equals the calibrated public trips (GPCT). The total calibrated Mobility-Impaired calibrated trips (MIC) plus the General Public trips (GPCT) equal the total transit trips per model (TT) for the census tract.

Formula to determine total transit trips per census tract:

1. Total estimated &MI: $(DR/ MIT) = MIY$ transit trips per year
2. Total estimated GP: $(FR/ GPT) = GPY$ total estimated general public trips per year
3. Calibrated MI Trips per Census Tract: $MI * MIY = MIC$ total trips
4. General Public Trips per Census Tract: $P - MI * GPY = GPCT$ total general public trips
5. Total Trips per Model: $EP + MIC + GPCT = TT$

Example Census Tract 107:

1. $65,225/16,522 = 3.95$ MI Trips per year
2. $713,904/(122,433 - 16,522) = 6.74$ Trips per year
3. $1,293 * 3.95 = 5,107$ Calibrated MI Trips
4. $10,879 - 1,293 = 9,586 * 6.74 = 64,609$ Calibrated GP Trips
5. $5,107 + 64,609 = 69,716$ Transit Trips per Model

APPENDIX A3 - ANALYSIS OF TRANSIT DEMAND

Shasta County RTPA

(DR) Demand Response
Trips*

65,225 DR

(FR) Fixed Route Trips*

713,904 FR

Estimated Total Trips

779,129

*Source: 2004 RABA SCO Report

Census Tract	Description	(P) Population	(EP) Persons Over 65	(MI) Mobility Impaired 16-64	(MI) Total Mobility Impaired	(MIC) Mobility Impaired Calibrated Trips	(GPCT) Calibrated General Pub. Trips	(TT) Total Trips Per Model	Density Per Square Mile
107	Quartz Hill	10,879		1,293	1,293	5,104	64,615	69,720	3,097.2
108	Lake Blvd	16,685		1,446	1,446	5,708	102,720	108,429	1,765.8
117	Summit City	7,802		1,359	1,359	5,365	43,430	48,795	431.5
121	East Anderson	5,429		834	834	3,292	30,973	34,266	358.8
106	Eureka Way/Canyon Crk	8,131		828	828	3,269	49,227	52,495	619.6
112	Enterprise High	5,377		613	613	2,420	32,112	34,532	1,477.3
113	Shasta Meadows	5,158		896	896	3,537	28,728	32,266	1,565.4
109	Enterprise/Bechelli	3,854		487	487	1,923	22,696	24,618	2,071.3
105	Placer/Benton Airpark	4,688		849	849	3,352	25,877	29,229	2,969.2
110	Texas Springs	6,851		947	947	3,739	39,797	43,535	313.6
114	Alta Mesa	8,709		1,032	1,032	4,074	51,748	55,822	1,688.7
104	River Bend	4,134		612	612	2,416	23,740	26,156	1,772.4
120	West Anderson	4,799		889	889	3,510	26,356	29,865	1,137.5
103	Enterprise/E Cypress	3,720		514	514	2,029	21,610	23,640	1,987.7
101	Downtown Redding	1,579		325	325	1,283	8,453	9,736	3,014.8
116	West Lake Blvd	3,528		525	525	2,073	20,242	22,315	77.4
123	Happy Valley	11,088		1,712	1,712	6,759	63,200	69,958	634.5
102	Eastern Downtown Rdg	2,126		313	313	1,236	12,221	13,456	2,010.9
111	Girvan/Eastside	2,742		229	229	904	16,939	17,843	1,412.6
115	Churn Creek Bottom	5,154		819	819	3,233	29,221	32,454	135.3
TOTAL		122,433	-	16,522	16,522	65,225	713,904	779,129	
		(GPT)			(MIT)				
118	No Transit - Mount. Gate	7,374		936	936	3,695	43,396	47,091	112.2
119	No Transit - PC/BV	4,265		428	428	1,690	25,864	27,553	165.5
122	No Transit - E Cottonwood	4,988		676	676	2,669	29,065	31,734	248.7
124	No Transit - Igo/Ono/Platina	3,863		497	497	1,962	22,689	24,651	6.3
125	No Transit - Lakehead	1,609		193	193	762	9,545	10,307	3.4
126	No Transit - Burney	10,473		1,561	1,561	6,162	60,072	66,235	15.0
127	No Transit - Fall River	8,251		1,293	1,293	5,104	46,901	52,006	19.2
Mobility Impaired Trips per year = MIY						3.95	= (MIY)		
General Public trips per year = GPY						6.74	= (GPY)		
118	Sample Tract	7,374			1,971	7,781	36,419	44,201	112

APPENDIX B – SCHEDULE OF TDA CLAIMS

SHASTA COUNTY RTPA SCHEDULE OF ANNUAL CLAIMS /TDA BUDGET FISCAL YEAR 2005 / 2006 CLAIMS

EXHIBIT B

CLAIMANT/PURPOSE	LTF	Funding Sources	
		STA	FTA
Off-The-Top Apportionments			
Administrative PUC 99233.1	197,850		
(Includes Core Function Match)			
CTSA Funding for Elderly Population PUC 99275	309,100		
CTSA Funding for Administration by CTSA PUC 99275	12,000		
Carryover CTSA Funding for Senior Training Program PUC 99275	-		
Total Off The Top Apportionments	518,950		
Redding Area Bus Authority			
TDA funds required per RABA budget PUC 99400(c)	6,461,138		
Sources of Transit Funding:			
LTF - Redding	2,933,049		
STA - Redding	165,637	165,637	
FTA Section 5307	2,151,166		2,151,166
LTF - Shasta Lake	126,740		
STA - Shasta Lake	19,068	19,068	
FTA Section 5307	247,643		247,643
LTF - Anderson	62,540		
STA - Anderson	19,068	19,068	
FTA Section 5307	247,643		247,643
LTF - Shasta County	334,816		
STA - Shasta County	129,588	129,588	FTA 5311
FTA Sec 5311	24,179		24,179
Total Funds Provided RABA for Transit	6,461,138	3,457,145	2,670,631
Services Provided Under Contract to Shasta County	LTF for Other		FTA 5311
Burney Express-Voluntary Program	1,984		80,316
City of Redding			
LTF - Streets and Roads	0		
City Of Anderson			
LTF Streets and Roads	275,114		
City Of Shasta Lake			
LTF Streets and Roads	210,914		
Shasta County			
LTF - Streets and Roads (PUC 99400(a))	1,921,650		
LTF - Purchased Transportation - Rural Administration (Voluntary Program)	6,250		FTA 5311
LTF - Purchased Transportation - Lifeline Services (PUC 99400(c))	30,000		0
Total Revenues by Funding Source	5,903,057	333,362	2,750,947
PROOF	0	0	0
TOTAL REVENUES TO BE DISTRIBUTED=	8,987,366		
Off-the Top Apportionment	518,950		
Less Core Planning Match	(12,946)		
Equal Totals Resources Available for Distribution (Exhibit A)	9,493,370		

APPENDIX C – FAREBOX RATIO
RABA FIXED AND DEMAND COMBINED
2004-2005 FAREBOX RATIO CALCULATIONS

	Demand	Fixed Route	Total
Revenues: 6611.2 (excludes Charter 99247 (a))	\$1,269,526	2,807,956	4,077,482
Operating Expenses (Depreciation Not Included)			
Services	164,755	376,914	541,669
Fuel & Lubricants	126,939	417,762	544,701
Tires and Tubes	18,425	49,229	67,654
Other Materials & Supplies	51,219	189,098	240,317
Utilities	27,267	51,850	79,117
Casualty & Liability Costs	17,232	32,768	50,000
Purchased Transportation	813,510	1,548,749	2,362,259
Miscellaneous	50,179	136,297	186,476
Property	0	880,681	880,681
Total Expenses	1,269,526	3,683,348	4,952,874
Exclusions	<u>(61,835)</u>	<u>(1,001,955)</u>	<u>(1,063,790)</u>
TOTAL OPERATING EXPENSES	1,207,691	2,681,393	3,889,084
 Farebox Recovery	 8.13%	 15.97%	 13.54%

Redding Area Bus Authority Fare Structure		
	Redding/Slake	Anderson
Burney Express Routes	\$1-3.00	
Base Fare (6-61)	\$1.00	\$1.20
Zone Charge	\$.50	\$.60
Children Under 6	Free	Free
Transfers	Free	Free
Senior Base Fare	\$.50	\$.60
Handicapped Base Fare	\$.50	\$.60
Medicare Card Holder	\$.50	\$.60
Zone Charge	\$.25	\$.30
Demand Response	\$1.50	\$1.80
Zone Change	\$.75	\$.90

APPENDIX D - TABLE OF RESPONSIBILITY

Citizens using transit in Shasta County often have comments or suggestions they would like to make about the system they use, but are unclear as to which comments are appropriate for the Unmet Transit Needs hearing. The examples in the table below are intended to offer citizens direction as to which agency to contact.

AREA OF CONCERN	EXAMPLES	RESPONSIBLE AGENCY
Expanded RABA/CTSA Service	• Adding a new bus route • Having buses operate for longer hours • Having buses operate on Sundays	RTPA During the Unmet Transit Needs written comment period and public hearing
Existing RABA service Issues	• Altering RABA's existing routes • Changing the location of bus stops • Comments about RABA's customer service	RABA
Existing CTSA service issues	• Altering existing SSNP routes • Comments about SSNP's customer service	CTSA
Other services	• Request for services not required by RTPA as part of Unmet Transit Needs process such as; Lifeline service or vanpools	Shasta County City of Redding City of Anderson City of Shasta Lake

APPENDIX E – CHRONOLOGICAL HISTORY

Year	Primary Requests	RTPA Responses/Actions
1999/2000	1. Sunday Service 2. Longer Hours 3. Half Hour Headways 4. Rural Area Service	1998 Temporary farebox reduction to 15%. 1997/98 RABA generated 15.87% farebox ratio. Further expansion could result in system not meeting 17.5% farebox for 98/99. No evidence that service expansions would generate 20% farebox ratio required for expansion of service. Request for service in rural areas were in areas where service was attempted in the past and discontinued for low ridership. There is no increase in demographics in the areas requesting service. CTSA expanded service in 97/98 to the Burney/Fall River Mills area and added a special service for the frail and elderly. Both of these expansions have been a success. The CTSA service expansion to Lakehead twice weekly was terminated due to only one client being transported during the 11-month period.
2000/2001	1. Service Expansion 2. Longer Hours	RTPA implemented a temporary farebox reduction for RABA. The required farebox will be: 2001/2002—16.5%, 2002/2003—17.5%, 2004/2005—18.5%, and 19% thereafter.
2001/2002	1. Extend Anderson route to Cottonwood, Airport Road route, Add service to Fall River 2. Sunday Service 3. Longer Hours	1. Cottonwood Express may be reasonable to meet based on census tract data. Airport Road does not have enough density to recover 20% farebox requirement. Burney Express service is operating at 19% farebox. 69 service hours would be required to run this extension to Fall River. Census Data does not support the needed trips. 2,3. The 1999/00 RABA farebox ratio was 19.1%, falling short of the required 20% for a new service to be determined reasonable to meet. *Note: Shingletown Vanpool terminated due to lack of riders and driver. Note: RTPA adopted a weighted average farebox ratio for RABA of 19%. Implemented trial services to Cottonwood, Airport Road Corridor, and Fall River.
2002/2003	1. Service to Palo Cedro and Lakehead 2. Sunday Service 3. Longer Hours	1. These areas are low density and not reasonable to meet. 2,3. The 00/01 Farebox ratio was 18.8% falling below the required 20% farebox.
2003/2004	1. Service to Shasta College 2. Service to Outlying Areas 3. Longer Hours 4. Sunday Service	1,2. RABA implemented a pilot service to Shasta College thru regular operations.2: Due to lack of ridership and farebox recovery Trial Services implemented in 2001/02 were terminated. Farebox ratios were Fall River—3.7%, Cottonwood—3%, and Airport Road Corridor—1.5%. RABA did meet the farebox requirement of 16.5% in 2001/02. 3,4: An extended hour analysis was performed by the RTPA using an elasticity of demand theory. The analysis yielded a 14.7% farebox ratio, which does not meet the reasonable to meet definition. To obtain data for the analysis, RTPA staff performed an on-board survey of riders for both RABA Demand Response and CTSA.
2004/2005	1. Service to Happy Valley and Mountain Gate 2. Longer Hours 3. Sunday Service	1. Service can be provided to outlying areas where the CTSA operator has service, providing that persons are over 60 years of age or mobility-impaired. 2,3. See discussions in 2003/2004.
2005/2006	1. Service to Stillwater and Shingletown 2. Reduce 1-hour Headways 3. Longer Hours 4. Sunday Service	1. These areas are low density and not reasonable to meet. RTPA staff met with SSNP to discuss the feasibility of providing senior transportation to Shingletown. SSNP and community medical center will continue these discussions. 2,3,4. RABA is currently operating below the required 19% farebox ratio. RABA developed a 10-year financial plan that is projected to achieve the required farebox ratio of 19% in 2006/07. RTPA Board approved a temporary one-year farebox ratio reduction to 15% for 2005/2006. RTPA Board approved funding from the 2005/2006 Overall Work Program to update the <i>2001 RABA Short and Long Range Transit Plan</i>.

APPENDIX F - LIST OF FREQUENTLY USED ACRONYMS

ADA	<u>Americans with Disabilities Act.</u>
CTSA	<u>Consolidated Transportation Services Agency.</u> A local agency designated by the Regional Transportation Planning Agency to implement local social service transportation coordination plans.
SCRTPA	<u>Shasta County Regional Transportation Planning Agency</u>
SSNP	<u>Shasta Senior Nutrition Programs.</u> Designated as the county's Consolidated Transportation Services Agency (CTSA), this non-profit agency provides senior transportation to the elderly population of Shasta County.
SSTAC	<u>Social Services Transportation Advisory Council.</u> As outlined in the California Public Utilities Code Section 99238, this group advised the SCRTPA on other major transit issues, including the coordination of specialized transit services and implementation of the American with Disabilities Act.
TDA	<u>Transportation Development Act.</u> Senate Bill 325 created Regional Transportation Planning Agencies (RTPA) funded by ¼ cent of retail sales tax extended to include tax on gasoline through the Local Transportation Fund (LTF).