



FACT BOOK

Long-Range Transit Plan

July 2020



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1 INTRODUCTION

The Existing Conditions Fact Book is the first element of the Shasta Regional Transportation Agency (SRTA) Long-Range Transit Plan (LRTP) effort. The purpose of the report is to summarize the background conditions in which transit operates in Shasta County and to provide a comprehensive evaluation of existing service characteristics, demographics, and system performance. This Fact Book is intended to serve as the foundation for the development of recommendations as part of the SRTA LRTP.

The Fact Book is comprised of three main sections:

- Summary of Existing Data
- Potential New Transit Funding Sources
- Evaluation of Recent Transit Enhancement Initiatives

KEY FINDINGS

- Priority service improvements identified in existing planning documents include improving on-time performance, extending service span to provide later evening service, adding Sunday service, and improving service frequency.
- Transit demand and propensity are highly concentrated in the Redding urbanized area, particularly in downtown Redding, the Hilltop Dr corridor, and the Hartnell Ave corridor.
- Shasta County population is expected to increase by 17% between 2020 and 2040.
- Today the Shasta region's mobility is dominated by use of private autos. Alternate modes, including transit, are not well situated to offer a broadly attractive or viable alternative.
- Future projections of employment, population, and land use suggest a need to develop attractive mobility alternatives to conserve the Shasta region's livability.
- The cost to operate Redding Area Bus Authority (RABA) service is rising and farebox recovery ratio for the agency is decreasing.
- Ridership on RABA has decreased by approximately 19% since 2014.
- RABA express service is underperforming relative to other fixed-route service types.
- Transit funding in the county has been limited. Options exist to increase transit funding but require local support to access those funding sources. Recent history has shown a lack of voter support for local ballot measures to fund other community needs.
- Local Transit Fund (LTF) funding is limited based on current law and SRTA policy regarding designated uses, agency performance, and sufficient funding availability to accomplish expansions. While unmet transit needs may exist, they must also be deemed reasonable to meet with the financial resources available.
- Farebox recovery ratio for RABA has been steadily declining from a high of 19.6% in 2013 to a low of 15.4% in 2018.

- Recent transit initiatives have focused on alternative service models as opposed to traditional fixed-route service. Those include a planned zero-emission intercity bus (Salmon Runner), on-demand (ShastaConnect Sunday service pilot), expanded express service (Crosstown Express) and downtown circulator service (DASH Downtown Area Shuttle).
- Recent transit improvements have generally focused on alternative service models because they have been grant funded (LCTOP, AHSC, etc.) projects which must meet specific criteria to ensure funding eligibility.

2 SUMMARY OF EXISTING DATA

PLANS

Current transit planning efforts in Shasta County exist within a broader planning context that has evolved over time. This section reviews that municipal and regional planning context, identifying key findings, goals, strategies, and priorities from each document that establish the context and framework for transportation planning in the region. These documents and findings are shown in Figure 2-2.

Values, Goals, and Guiding Principles

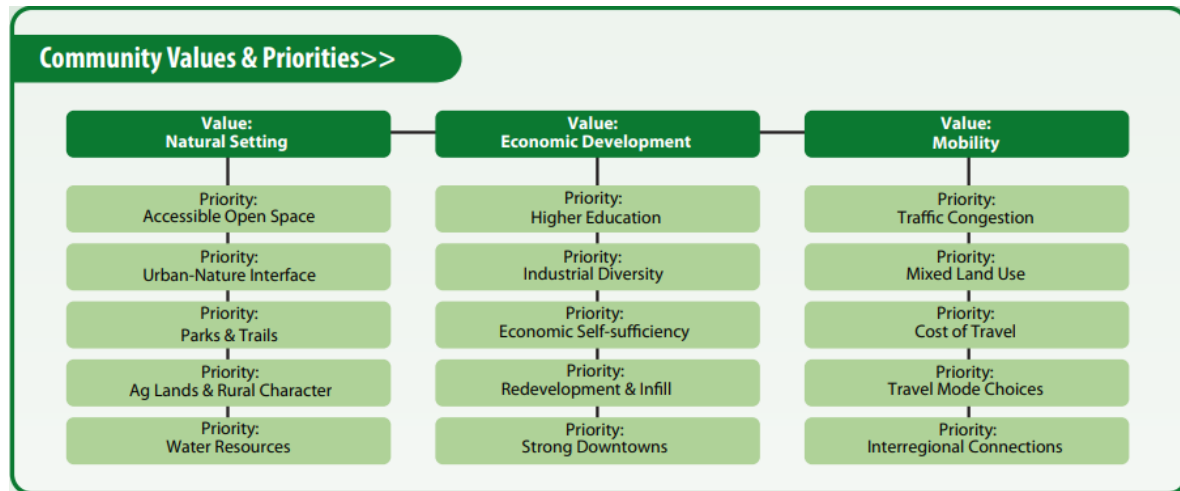
Guiding principles and priorities are relatively consistent between SRTA and RABA, including:

- Improving regional accessibility
- Meeting federal and state requirements
- Prioritizing Sunday service and service frequency as new service improvements

Guiding principles from the Regional Sustainable Communities Strategy (SCS) are shown in Figure 2-1.

The primary disconnect in values, goals, and guiding principles is between the short-range planning documents (SRTP, Shasta Coordinated Transportation Plan, Transit Asset Management Plan, Shasta Lake Microtransit Feasibility Study) and the SCS. The SCS calls for significant improvements in transit service frequency, increased revenue hours and ridership, and investments in emerging mobility strategies. Because each agency in the region develops their own short-range plans and lacks an overarching long-range plan to guide interagency development, there has not been an identified strategy or approach to achieve these goals established in the SCS. A key priority of this LRTP will be to determine the necessary steps and funding strategies that will bridge the existing services with the guiding principles and goals identified in the SCS.

Figure 2-1 Communities Values & Priorities



Source: ShastaFORWARD Regional Blueprint, SRTA, 2010

Priorities

Priority service improvements have consistently included improving on-time performance, extending service span to provide later evening service, adding Sunday service, adding service to unserved areas, and improving service frequency. These priority improvements have been identified in the 2014 RABA's Short-Range Transit Plan (SRTP) and the SRTA Annual Unmet-Transit Needs Assessment. Documentation from both agencies are consistent in their assessment that more funding is necessary to extend service span and improve service frequency, as well as reconfiguring service to improve travel times. The Sunday service pilot project is currently grant funded and will need to secure a long-term dedicated funding source if the service is to continue after grant funding is exhausted. A summary of key findings, goals, strategies and priorities from regional and local documents are shown in Figure 2-2.

Figure 2-2 Document Review Summary

Plan Lead Agency	Findings, Goals, Strategies, and Priorities
ShastaFORWARD Regional Blueprint Draft Report SRTA, 2010	- The document analyzes the county and plans future growth in the region - Sets the stage for the 'Sustainable Communities Strategy' for the county to reduce greenhouse gas emissions in the transportation sector - Elements to support this include: - Creating a 'Regional Priorities Compact' which combines the community's values, preferred land use patterns, and specific action-items for uniform local agency consideration - Based on active community engagement, three alternative scenario concepts were finalized for the future of the county which includes: - Focus on rural and peripheral areas - Focus on urban core and corridors - Focus on maintaining distinct cities and towns

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Plan Lead Agency	Findings, Goals, Strategies, and Priorities
	▪ Of the three scenarios, a combination of focusing on the urban core and corridors while maintaining a distinct identity between urban and rural areas was chosen
Coordination of CTSA Services Review SRTA, 2014	▪ Potential Coordinated Transit Service Agreement performance measures include: – Number of trips coordinated – Average operating cost of trips – Cost to administer trips – Percent of requested trips successfully accommodated – Demonstrable cost savings through trip coordination – Number of people trained to use fixed-route service ▪ RABA wanted to evaluate the impacts of their own service before taking up a CTSA role ▪ Under the JPA agreement RABA could expand its capabilities and provide a wide range of transportation services for Shasta County and has declared an interest in doing so in the future
Short-Range Transit Plan RABA, 2014	▪ Highest priority improvements include: – Improving on-time performance – Extending weekday service to 8:30 pm – Adding Sunday service – Improving peak period frequency to 30-minutes ▪ Plan determined that extending service span, improving frequency, and adding Sunday service could not be done with existing budget ▪ Approximately 66% of RABA funding is derived from the TDA program ▪ Coordination – Plan recommends SRTA sponsor multiple studies to increase coordination between Human service agencies and RABA – Calls for better coordination SNP and RABA demand response services
Transit Technology Plan SRTA, 2014	▪ Recommendations include: – Smart Bus System Deployment – Integrated electronic fare boxes – Advanced Traveler Information Systems – Install APC systems on all vehicles – Install Transit Signal Priority
Shasta Coordinated Transportation Plan SRTA, 2017	▪ Plan identified 8 priority strategies: – Evaluate, strengthen, and maintain existing transportation services and projects – Marketing and education of services – Mobility management – Multi-organizational approach to solutions and overall coordination

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Plan Lead Agency	Findings, Goals, Strategies, and Priorities
	– Driver recruitment, development, screening, and training programs – New or expanded services and projects to meet identified gaps and needs – Infrastructure projects – Shared use of agency vehicles
Transit Asset Management Plan RABA, 2018	▪ RABA assets are generally in a state of good repair ▪ Only server equipment and non-revenue vehicles were beyond Useful Life Benchmark
Microtransit Feasibility Study City of Shasta Lake, 2019	▪ Stakeholder interviews found strong dissatisfaction with both frequency and reliability of existing RABA service ▪ Potential strategies for Microtransit or fixed-route improvements include: – Using smaller vehicles types and electric vehicles – Developing express fixed-route service with connections to local service – Improving connections to Redding – Potential service extensions to Mountain Gate and along Shasta Dam Boulevard ▪ Plan identifies key challenges with replacing RABA service with microtransit service ▪ Proposes three scenarios for the administration of microtransit for City of Shasta Lake and SRTA to choose.
2019/2020 Unmet Transit Needs Assessment SRTA, 2019	▪ Highest priority transit needs include Sunday service, expanding service span, and more frequent service ▪ Outcomes from the assessment include: – Grant funded Sunday service pilot in Redding – Expanded crosstown express service – Continue working with partners reinstitute Whiskeytown Lake Beach Bus
2020/2021 Unmet Transit Needs Assessment SRTA, 2020	▪ Sunday service pilot was launched and is close to meeting performance expectations ▪ Grant funds are allowing for the continuation of Crosstown Express service between Downtown Redding and the Canby Transit Center ▪ Whiskeytown Beach Bus was approved for funding and scheduled to return to operations in Summer 2020 ▪ Several responses to public comments suggested service improvements would be assessed in the long-range planning process, including: – New service to Lakehead, Shingletown, Palo Cedro, and Riverland Drive – Exploring potential for intercity passenger rail
North State Intercity Bus System Business Plan SRTA, 2018	▪ This project was identified as the highest priority intercity connectivity project in the region ▪ Supported by the 16 county North State Super Region ▪ Project would contribute to alleviating congestion and meeting California's goal of reducing greenhouse gas emissions to 40% below 1990 levels by 2030, as

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Plan Lead Agency	Findings, Goals, Strategies, and Priorities
	defined by State Bill 32. However, greenhouse gas reductions only count toward reduced vehicle miles traveled inside the respective region. ▪ Service is not yet in operation ▪ SRTA requested around \$900,000 for operating funds to connect the missing links between Redding to Orland, Orland to Sacramento, and the Valley Feeder to Chico.
ShastaConnect Sunday On-Demand Transit Service Demonstration Project Business Plan SRTA, 2019	▪ This study found that the introduction of a general public demand response service for Sunday service would be fairly easy for RABA passengers and other potential riders to understand and utilize. ▪ Several key strategies for the pilot program include: – Using a smartphone app to access and use the service, improving overall productivity – Education and marketing is a key prioritized strategy for informing the public of the pilot project – Partnering with Dignity Health Connected Living to be a service provider
Triennial Performance Audit of the RTPA SRTA, 2019	▪ SRTA is largely in compliance with TDA requirements except for 3 minor compliance issues and 1 functional finding: – SRTA submitted the state controller report for FY 16/17 late – SRTA allocated TDA funding to RABA between the start of the fiscal year and the completion of the audit – SRTA did not provide evidence that it certified RABA's triennial performance audit – There are internal inconsistencies related to the RABA farebox recovery ratio in SRTA's TDA Handbook policies and procedures
Regional Transportation Plan & Sustainable Communities Strategy for the Shasta Region SRTA, 2018	▪ Sustainable Communities Strategy calls for several transit improvements, including: – Increased frequency on select routes in 2020 and more extensively by 2035 – Invest in on-demand transit in targeted areas and at specific times – Develop subsidized transit pass programs ▪ Sustainable Communities Strategy includes several service expansion and ridership projections, including: – Increase daily service hours by 21 hours in 2020 and 104 hours by 2035 – Increase daily boardings by 867 in 2020 and 3,098 in 2035
Go Shasta Regional Active Transportation Plan SRTA, 2018	▪ Provides a regional vision, identifies projects, and action lists for Shasta County and its incorporated cities ▪ Major themes highlighted in this plan include: – Increase active transportation mode share – Increase safety and comfort of active transportation users – Invest in healthy, vibrant, sustainable, and people-centered communities ▪ Provides five performance metrics to evaluate the progress of the projects highlighted in the plan

Plan Lead Agency	Findings, Goals, Strategies, and Priorities
	– Active transportation modal split for the region and for Strategic Growth Areas – Miles of active transportation facilities accessing transit stops and schools in Strategic Growth Areas – Miles of low-stress bike facilities in Strategic Growth Areas – Number of collisions resulting in serious injuries and fatalities in Strategic Growth Areas – Average daily vehicle miles traveled per household in Strategic Growth Areas ▪ Recommends five different programs to be implemented by SRTA which include: – Education – includes Bicycle Ambassador program and Safe Routes to School programs – Bicycle Theft Prevention Initiatives – create a bicycle registration program, anti- bike theft signage and bait bike program – Encouragement – includes encouragement through infrastructure, programs, and land use policies – Enforcement – through campaigns and safety patrols on trails – Evaluation – maintaining a robust database with bike and pedestrian counts ▪ Action lists at the regional level focus on providing funding for projects undertaken by local municipalities whose projects are of regional significance ▪ Action lists for local jurisdictions focus on improving walking, biking, and transit environment for its residents

PEOPLE AND PLACES

Identifying the market for transit within the region provides relevant context for the role of transit today and how that role may change in the future. Assessing where people live and work, where the key markets for transit exist, and how people in the region perceive transit are all relevant for assessing the role of public transportation in the region. Taking stock of the current state of transit in Shasta County provides the starting point for charting a path forward and achieving regional goals.

Population and Employment

Population and employment density are key determinants of transit demand. Higher density residential areas have more people within walking distance of streets that buses can operate along. Therefore, these areas are more likely to support frequent service than lower density areas. Additionally, studies have shown that a doubling of population density is correlated with as much as a 30% decrease in driving.¹ Many of these driving trips are replaced with transit trips.

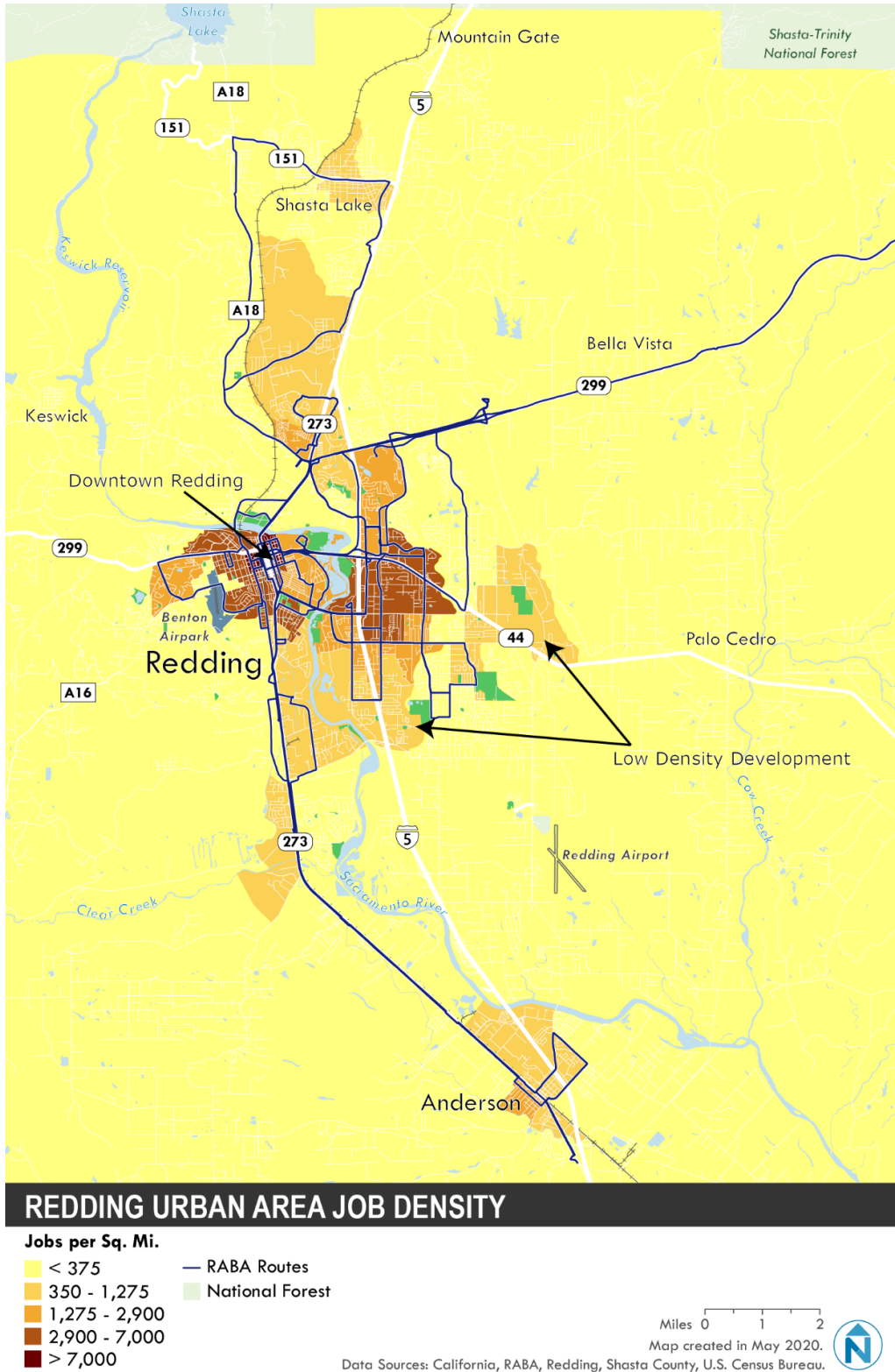
¹ *Patterns of Automobile Dependence in Cities*. Newman and Kenworthy, 1989

Population in Shasta County is concentrated in the Redding urbanized area along the I-5 corridor. This urbanized area is comprised of the cities of Redding, Shasta Lake, and Anderson. Population density in the Redding urbanized area (Figure 2-3) is concentrated in:

- Downtown Redding.
- Along the Hartnell Ave corridor on the east side of Redding.
- The neighborhood adjacent to the south of Shasta Dam Blvd in Shasta Lake.
- The neighborhood adjacent to the north of Lake Blvd in the northwest portion of Redding.

Despite being the population center for the Shasta region, the Redding urbanized area is generally characterized by low-density, automobile-oriented development over a large geographic footprint, including the neighborhoods surrounding downtown Redding. As mentioned above, there are a few pockets of density in the area but the region as a whole is relatively low-density. Stakeholder interviews conducted with local businesses, non-profits, advocacy groups, and government agencies indicated that Redding has low levels of traffic congestion and a large inventory of available, mostly free, parking. The combination of low-intensity land use and ease of automobile use in the region presents challenges for providing alternative mobility that offers competitive travel times with driving.

Figure 2-3 Redding Urbanized Area Population Density

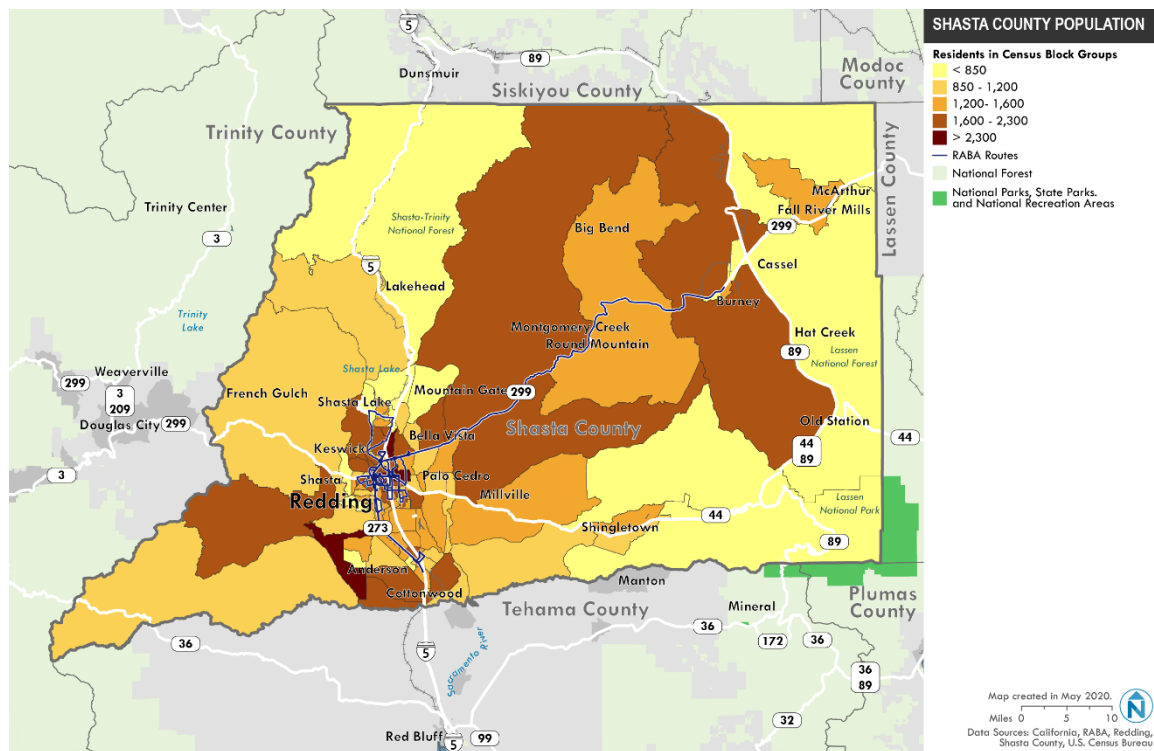


While population density is a common metric used to identify transit demand, it is a measure that involves both the absolute number of people within an area and the land area itself. Low density does not mean that no one lives in an area; it simply means that people are more spread out. In conventional fixed route transit, this is a significant challenge as lower density means fewer people within easy reach of a fixed route, thusly limiting the market for the service being offered. To display the difference between “density” and where people are actually living consider Figure 2-4, which shows the total population within each block group in Shasta County.

Outside of the Redding urbanized area, there are several small, low-density residential communities throughout the county. These communities represent significant populations with their own unique transportation needs. However, the remoteness, topography, and lack of established transportation infrastructure presents challenges for providing public transportation services. These communities include:

- Unincorporated communities of Cottonwood, Igo, and Centerville to the southwest of the Redding urbanized area.
- Unincorporated communities of Burney, McArthur, and Fall River Mills along SR 299 in the northeast of Shasta County.
- Unincorporated communities of Palo Cedro, Millville, and Shingletown along SR 44 to the east of the Redding urbanized area.
- The data suggests that there are significant populations spread throughout the northern and central areas of Shasta County near Shasta-Trinity National Forest and Latour State Forest. These Census block groups are relatively large and contain low density residential development across a large area.

Figure 2-4 Shasta County Population



Employment density shares a similar nexus with transit demand as population density. Areas with a higher density of jobs are more popular destinations and have a higher demand for transit trips, particularly during the morning and afternoon peak periods. In Shasta County, employment is highly concentrated in the Redding urbanized area, as shown in Figure 2-6. Analyzing the total employment within each Census blockgroup for the entire county (Figure 2-5) shows some additional employment outside of the Redding urbanized area, but to a much lesser degree.

Key employment hubs are concentrated in a roughly 3 by 5 mile area of Redding and include:

- Downtown Redding.
- The Shasta County Health and Human Services facility on Breslauer Way.
- The Hilltop Dr corridor and East Redding Industrial Subdivision.
- Mt. Shasta Mall and Shasta Crossroads shopping center located to the northwest of the I-5 & SR 44 interchange.

Figure 2-5 Shasta County Employment

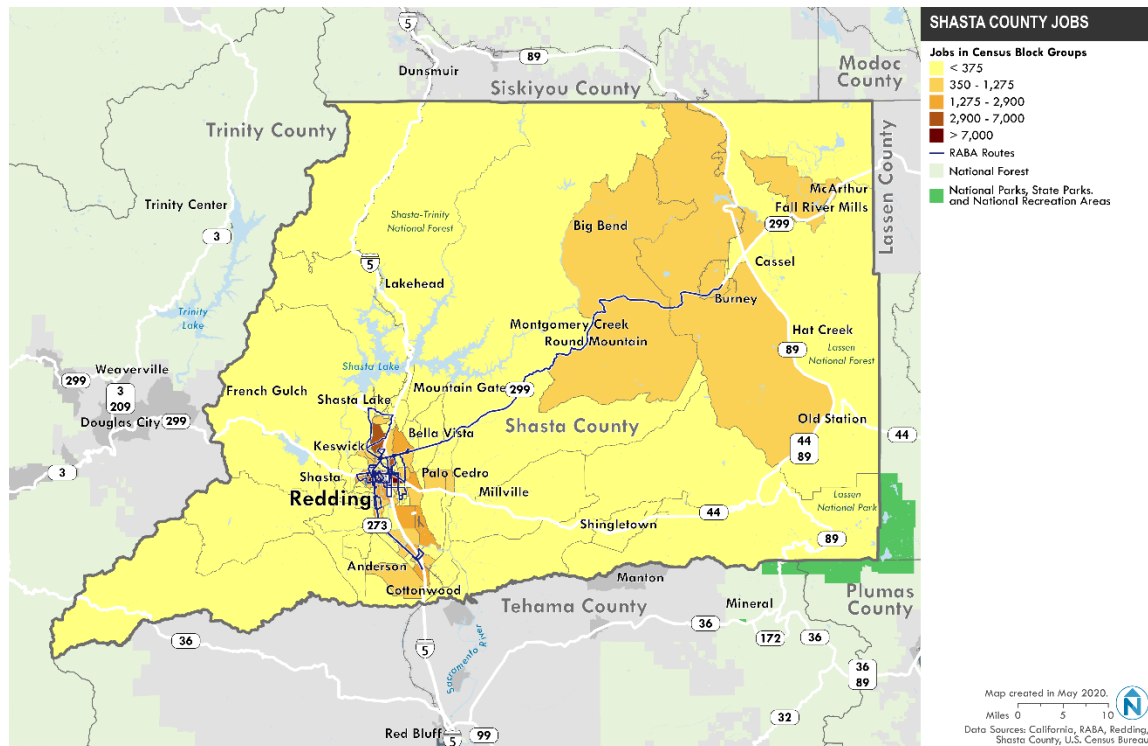
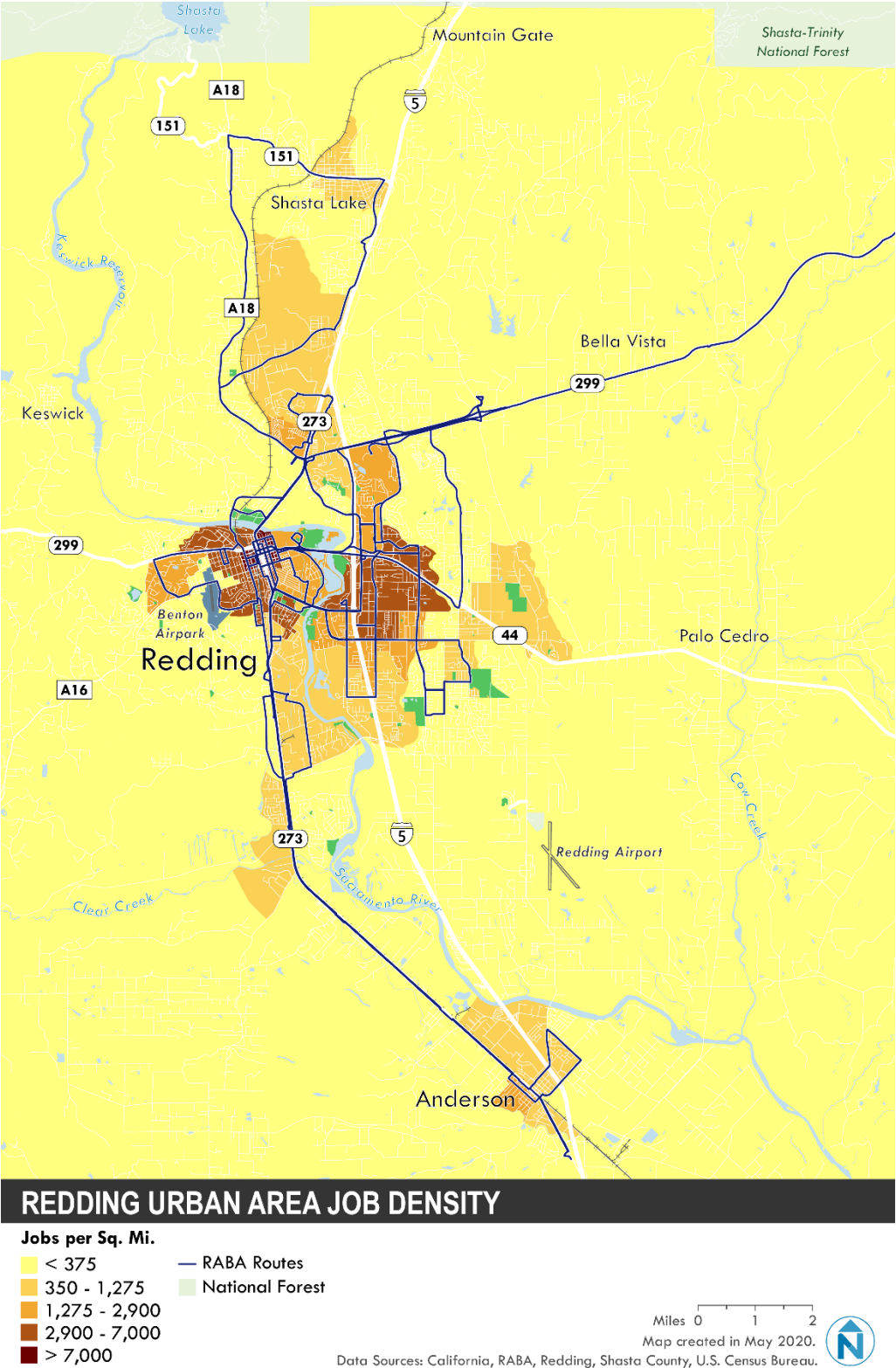


Figure 2-6 Redding Urbanized Area Employment Density



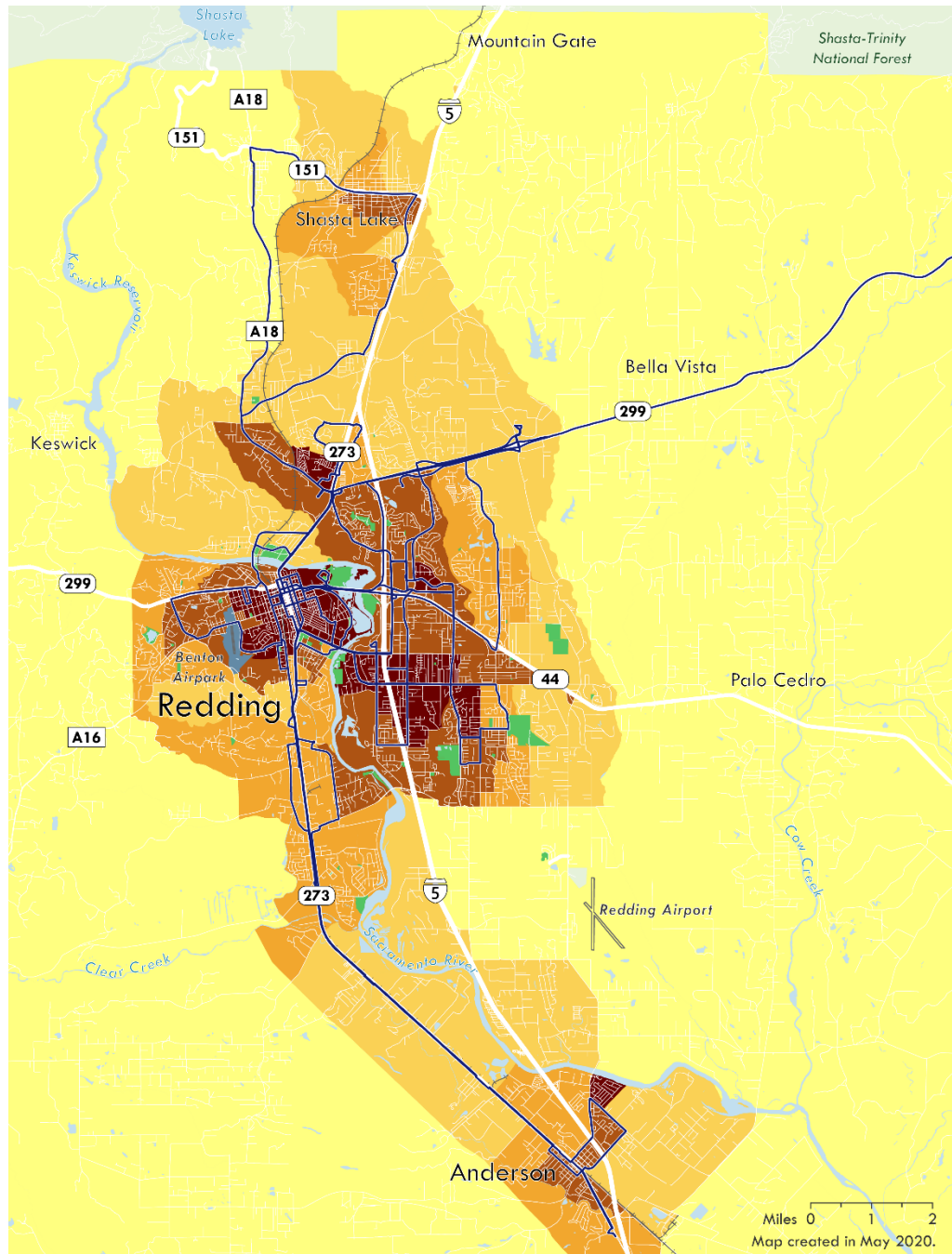
Demographics

Certain population groups and demographics are more likely to use transit than others. While population and employment density is useful for broadly determining demand for transit, identifying the concentrations of these population groups is useful for understanding where people with a typically high propensity for transit use live. These specific demographics include seniors (ages 65 and older), youth (ages 17 and younger), people with low-incomes (150% of the federal poverty level), total jobs, total low-income jobs, people with disabilities, and zero-vehicle households. These factors can be combined into a single Transit Propensity Index (Figure 2-7) to identify the areas of the region with the highest concentration of these demographics.

Based on this index, the largest demand for transit is clustered in:

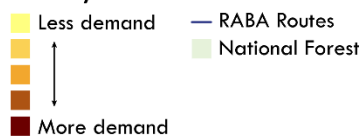
- Downtown Redding and the surrounding neighborhoods.
- Turtle Bay and the Park Marina Dr corridor.
- The Hilltop Dr and Hartnell Ave corridors in east Redding.
- Mt. Shasta Mall and Shasta Crossing shopping centers.
- The Lake Blvd corridor in north Redding, including Redwoods Mobile Home Community, Northpoint Apartments, and Heather Ridge Apartments.
- Downtown Anderson and residential developments in northeast Anderson.

Figure 2-7 Redding Urbanized Area Transit Propensity



REDDING URBAN AREA TRANSIT PROPENSITY INDEX

Intensity of Transit Demand



The transit propensity index combines the following data to identify places that are most likely to produce demand for public transit:

- People over age 65
- People under age 18
- People below 150% of the poverty level
- Total jobs
- Total low-income jobs
- People with disabilities
- Workers without access to a vehicle

Data Sources: California, RABA, Redding, Shasta County, U.S. Census Bureau. Map created in May 2020.



Strategic Growth Areas

In 2011 SRTA worked with city and county planners to update the population forecasts for the region and incorporated those updates within the regional demand model. The results of this updated forecasting are shown in Figure 2-8. Countywide population is expected to increase by 17% by 2040, an increase of about 32,500 people.

Figure 2-8 Shasta County Region-Wide Population Forecasts

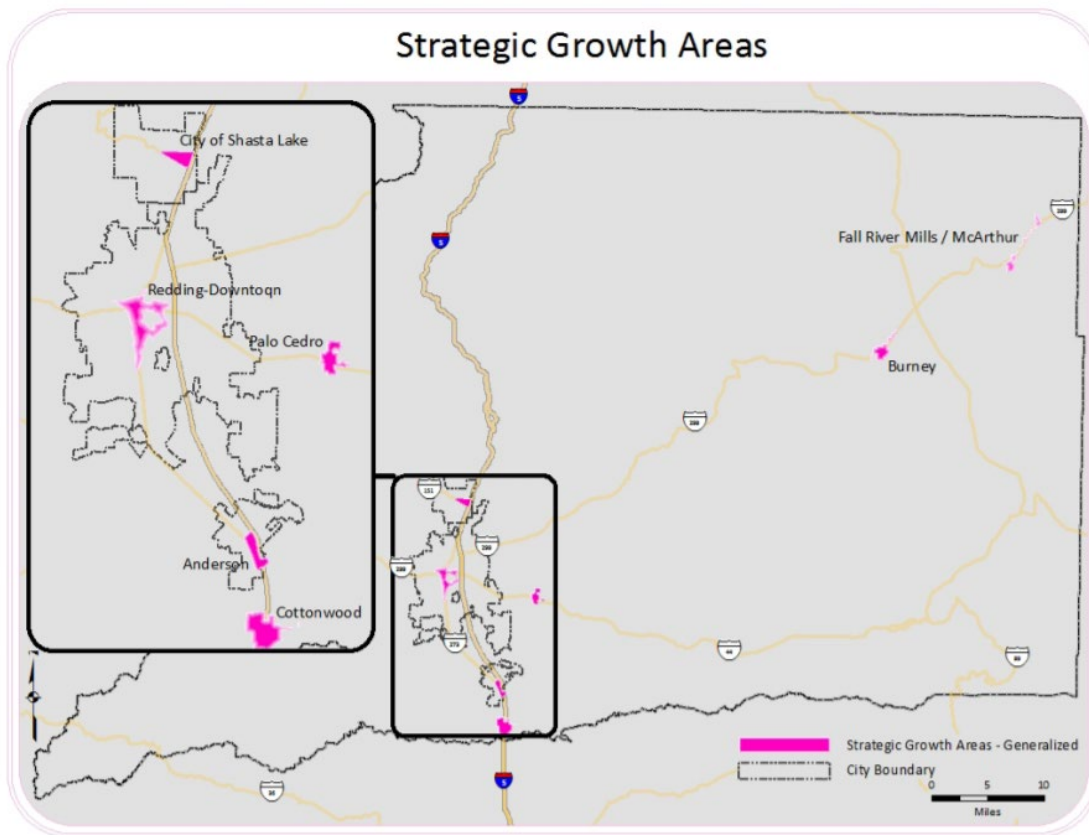
Year	Recommended Countywide Forecast	Anderson	Redding	Shasta Lake	Unincorporated Shasta County
2020	190,192	10,353	99,071	11,210	69,558
2025	197,747	10,426	103,539	11,845	71,938
2030	205,990	10,498	106,666	12,478	76,348
2035	214,364	10,925	111,002	12,985	79,451
2040	222,738	11,352	115,339	13,493	82,555
Total Change	32,546	999	16,268	2,283	12,997
Percent Change	17%	10%	16%	20%	19%

Source: SRTA 2018 RTP/SCS Growth Projections

The 2018 SCS features seven Strategic Growth Areas (SGAs), shown mapped in Figure 2-8, where various strategies can be focused to effectively reduce per capita vehicle miles traveled and associated greenhouse gas emissions. These SGAs build upon the 2010 ShastaFORWARD blueprint which establishes a vision for the region that includes a compact urban core, transit-oriented corridors, and maintains the balance between urban/rural areas. Strategies are intended to increase population and employment density within SGAs and to provide a range of practical mobility alternatives. The seven SGAs, shown in Figure 2-9, include downtown Redding, the City of Shasta Lake, the City of Anderson, Palo Cedro, Cottonwood, Burney, and Fall River Mills/McArthur.

In addition to designating these SGAs, the 2018 RTP also develops goals and strategies for targeted implementation within these areas. This section will outline the transit specific goals, region-wide adopted strategies, and potential strategies for future consideration.

Figure 2-9 Shasta County Strategic Growth Areas



Source: SRTA 2018 Regional Transportation Plan

The 2018 RTP identified three goals for the 2018-2022 cycle, which have all made significant progress since the plan's adoption. These goals include:

- **Long-range transit plan** – develop a plan that articulates regional priorities; SRTA’s transit coordination role; future transit capital needs; and an overarching transit funding strategy.
- **On-demand transit pilot project service** – beginning with pilot projects for Sunday service in high-demand areas and in the city of Shasta Lake. Based on real-world performance and lessons learned, explore possible service expansion to additional areas and times of day, in accordance with the adopted long-range transit plan.
- **Intercity bus to Sacramento** – Implement North State Express service in accordance with the project grant award, including completion of interagency agreements and ticketing, marketing and launching of new service, and fund seeking for feeder services.

Beyond these transit specific goals for the four-year RTP cycle, SRTA has adopted seven goals necessary to accomplish the regional vision established in the plan:

- **Optimize the use of existing interregional and regionally significant roadways** to prolong functionality and maximize return-on-investment.
- **Strategically increase capacity** on interregional and regionally significant roadways to keep people and freight moving effectively and efficiently.

- Provide an integrated, context-appropriate range of **practical transportation choices**.
- Create **people-centered communities that support public safety, health, and well-being**.
- Strengthen **regional economic competitiveness** for long-term prosperity.
- Promote **public access, awareness, and action** in planning and decision-making processes.
- Practice and promote **environmental and natural resource stewardship**.

Opportunities for additional improvements have been identified should additional funding for planning and implementation be made available to SRTA, local jurisdictions, and community development partners, including:

- **Expanded plug-in electric vehicle charging infrastructure**, including fast charging stations needed to accelerate the market penetration of zero-emission electric vehicles.
- **Expansion of interregional public transportation options**, with a focus on replacing long-distance interregional vehicle trips to airports and other large-urban destinations.
- **Consolidated goods and freight hub**, including capital infrastructure investments needed to support aggregation, wholesale, and distribution of agricultural commodities, natural resources, and other key industries in Shasta County and the North State.
- **Expanded bicycle and pedestrian infrastructure**, including completion of network gaps, enhanced integration with public transportation, and connections between regional trail corridors and the roadway network.
- **Incentives for infill and redevelopment projects**, needed to spur location-efficient development patterns.
- **Technology-based strategies**, including intelligent transportation systems (ITS) applications designed to enhance traffic operations and provide real-time travel information to system users.

SERVICE AND USAGE

This section describes the operating characteristics of transit service in Shasta County, including available service types, operating hours, fare structures, service guidelines, on-time performance characteristics, ridership and travel patterns, and the impacts of recent transit enhancement initiatives.

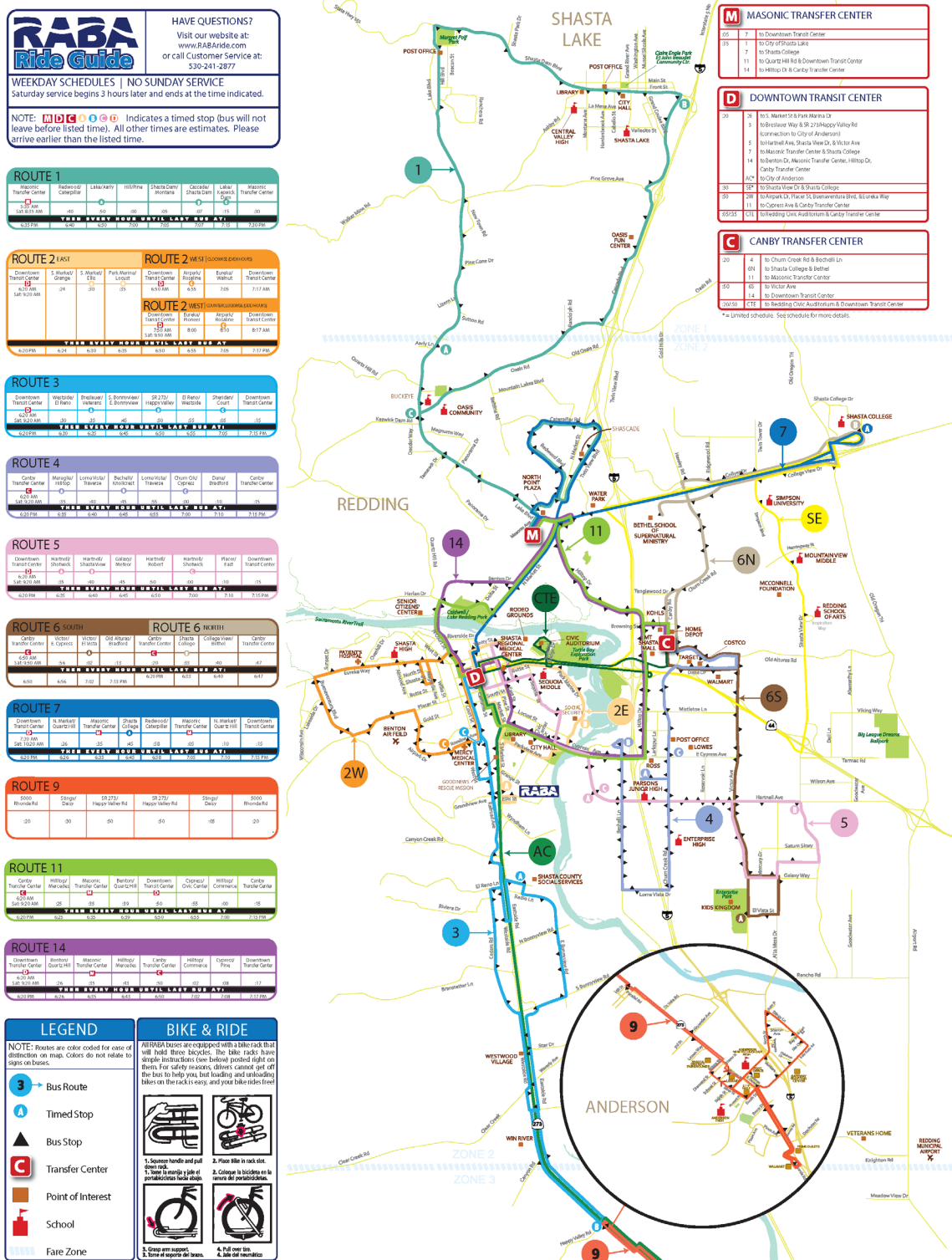
Service Description

Redding Area Bus Authority

RABA currently provides fixed-route bus service, commuter bus service, and complementary paratransit service within the City of Redding. RABA operates ten fixed-routes and three commuter routes, Anderson Commuter (AC), Crosstown Express (CE), and School Express (SE). The RABA system map is shown in Figure 2-10.

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Figure 2-10 RABA System Map



Fixed-Route and Commuter Service

Fixed-route service is operated on weekdays and Saturdays, with most routes operating every 60 minutes between 6:20 am and 7:30 pm on weekdays and between 9:20 am and 7:30 pm on Saturdays. Fixed-route service primarily operates within the City of Redding with connections to the City of Shasta Lake and the City of Anderson.

Commuter routes operate on weekdays only and the School Express route only operates during the school year. The Anderson Commuter provides one round trip per day between the Anderson Walmart and downtown Redding before interlining with the local Route 9 service. The Crosstown Express provides 30-minute service during peak periods only between the Canby Transfer Center near Mt. Shasta Mall and the Downtown Transit Center. The School Express provides two round trips per day between the Downtown Transit Center and Shasta College, once in the morning and once in the afternoon. Fares for fixed-route and commuter service are shown in Figure 2-11.

Figure 2-11 RABA Fixed-Route and Commuter Fare Structure

Passenger	1-Way Trip		Monthly Pass		
	1 Zone	Each Addt'l Zone	Redding	Redding & Shasta Lake	Redding & Anderson
Children (0-5)	Free	Free	--	--	--
Youth (6-17)	\$1.50	\$0.75	\$29.00	\$29.00	\$29.00
Adult (16-61)	\$1.50	\$0.75	\$48.25	\$82.00	\$82.00
Senior (62+) Disabled/Medicare	\$0.75	\$0.75	\$24.00	\$41.00	\$41.00

ADA Paratransit Service

RABA paratransit operates within $\frac{3}{4}$ mile of the fixed-route system. Service hours are the same as fixed-route service on weekdays and Saturdays. Paratransit service is only available to passengers who submit an eligibility application and demonstrate that they are functionally unable to use the fixed-route bus system. Once eligibility has been verified, passengers may schedule trips using a call in number. Trips must be scheduled at least one day in advance and up to two weeks in advance. Cancellations must be made within three hours of a reservation. Trip reservations are made in 30-minute pick up windows. Paratransit fares are shown in Figure 2-12.

Complementary Americans with Disabilities Act (ADA) Paratransit service for the Redding urbanized area is provided by RABA. However, for residents with an origin and/or destination not served by RABA, paratransit service is also provided by Dignity Health Connected Living (DHCL) which is a non-profit organization. DHCL is the designated Consolidated Transportation Services Agency (CTSA) within Shasta County and provides service under contract to SRTA through June 2022.

Figure 2-12 RABA Paratransit Fare Structure

Passenger	1-Way Trip	
	1 Zone	Each Addt'l Zone
All Passengers	\$3.00	\$1.50

Burney Express

The Burney Express route provides three round trips per day between Burney and Redding on weekdays only. Although funded by Shasta County, this service is operated by RABA. Fares for the Burney Express are also distanced based and shown in Figure 2-13.

Figure 2-13 Burney Express Fare Structure

From	To			
	Shasta College/ Bella Vista	Round Mtn / Montg Creek	Burney	Redding
Redding	\$2.00	\$3.50	\$5.00	--
Burney	\$3.50	\$2.00	--	\$5.00

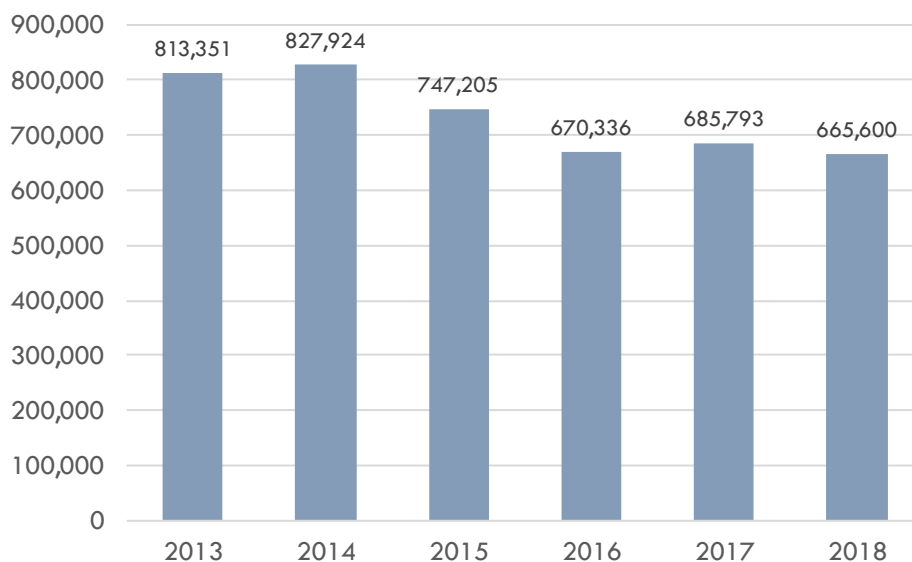
ShastaConnect

ShastaConnect is a brand name for transit services operated by DHCL under contract with SRTA. Services under ShastaConnect include: CTSA service and the fare free, on-demand service in the City of Redding on Sundays between 6:30 am and 7:30 pm. ShastaConnect service is discussed in more detail in Chapter 4 of this report.

Ridership and Productivity

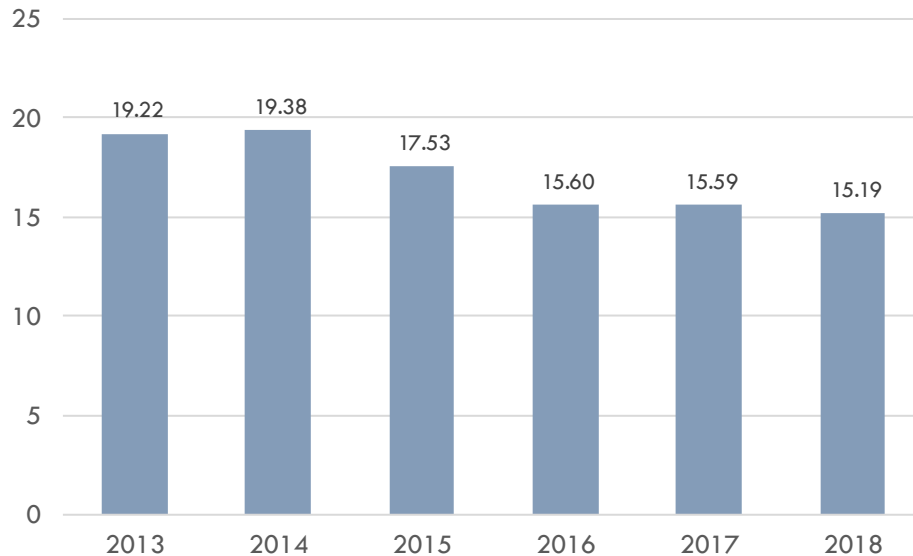
Ridership (annual passenger trips) and productivity (annual passenger trips per revenue hour) are two commonly used performance indicators for public transportation. Systemwide ridership on RABA, as shown in Figure 2-14, decreased by 19% from 2014 to 2016 and has been relatively stable since. Passenger trips per revenue hour, as shown in Figure 2-15, followed a similar trend as ridership, decreasing by 19.5% from 2014 to 2016. Passenger trips per revenue hour have stabilized since 2016.

Figure 2-14 RABA Annual Passenger Trips 2013-2018



Source: NTD 2013-2018

Figure 2-15 RABA Annual Passenger Trips per Revenue Hour 2013-2018



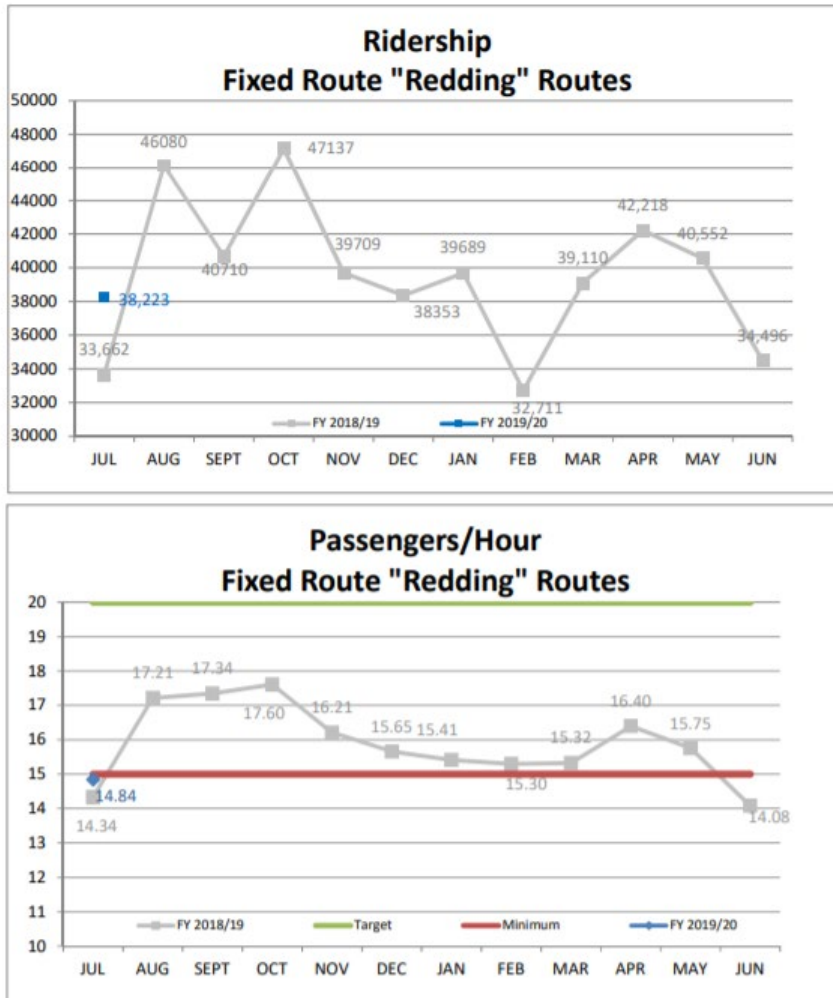
Source: NTD 2013-2018

RABA assesses ridership and productivity based on four different route classifications:

- Intra-city routes (routes 2, 3, 4, 5, 6, 7, 11, and 14)
- Inter-city routes (routes 1 and 9)
- Express routes (airport, school, and crosstown express)
- Burney express contract service

Intra-city routes generally operate within the city of Redding and make up the bulk of the routes in the RABA system. Monthly ridership and productivity for intra-city routes in FY2018-2019 are shown in Figure 2-16. Total ridership on these routes fluctuated between a high of 46,080 boardings in August 2018 and a low of 32,711 boardings in February of 2019. Productivity fluctuated between a high of 17.34 boardings per revenue hour in September 2018 and a low of 14.08 boardings per revenue hour in June 2019. The agency established a target productivity of 20 boardings per revenue hour with a minimum of 15 boardings per revenue hour. RABA intra-city routes failed to reach this target during FY 2018-2019 and was below the minimum standard in July 2018 and June 2019.

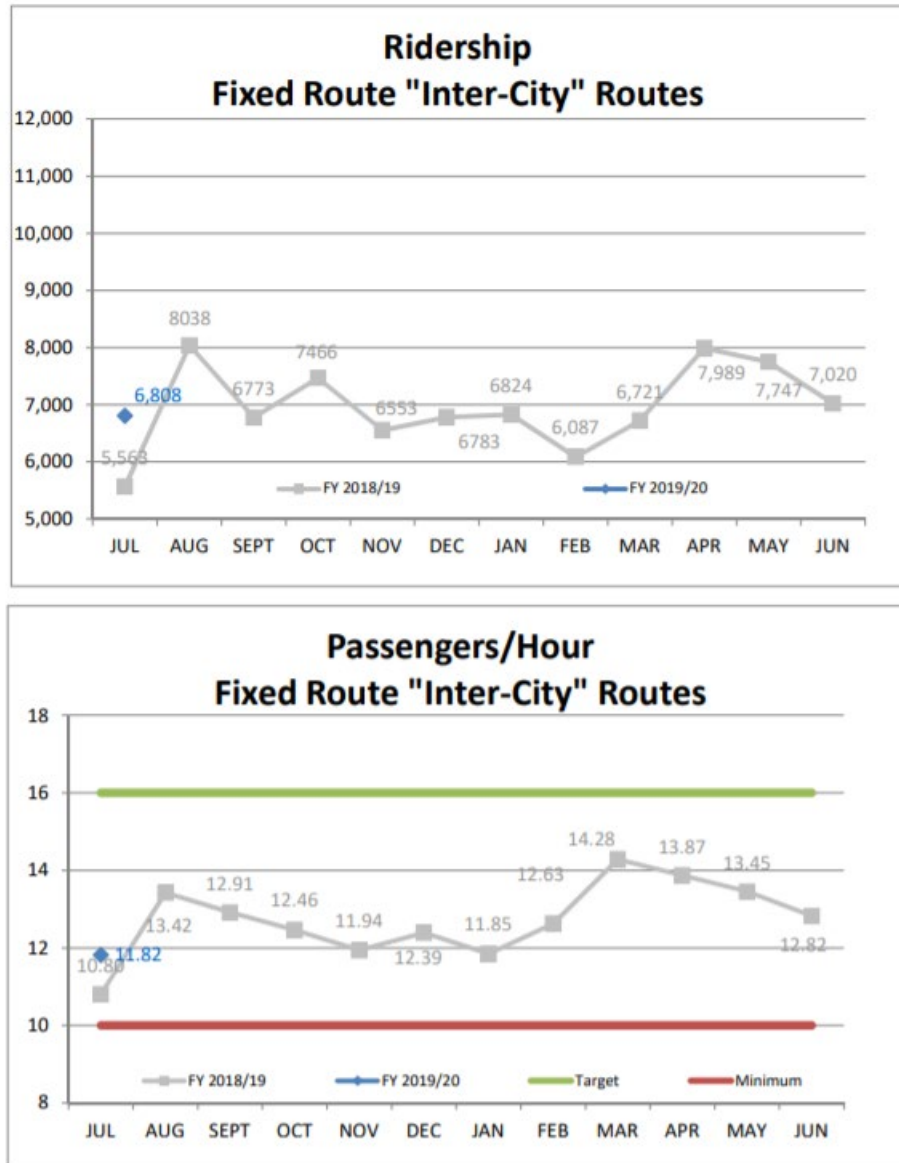
Figure 2-16 RABA Intra-city Ridership and Productivity (July 2018-July2019)



Source: RABA, 2020

RABA inter-city routes include two routes that connect the city of Anderson and the city of Shasta Lake with the city of Redding. Total ridership for these two routes, as shown in Figure 2-17, ranged from a high of 8,038 in August 2018 to a low of 5,563 in July 2018. Productivity ranged from a high of 14.28 boardings per revenue hour in May 2019 to a low of 10.80 boardings per revenue hour in July 2018. These inter-city routes generally operate over longer distances and through less densely populated areas. To reflect these differences in operating characteristics, RABA established target and minimum productivity levels of 16 and 10 boardings per revenue hour, respectively, lower than for intra-city routes. During FY2018-2019, inter-city routes did not reach target productivity, but were consistently above the minimum productivity threshold.

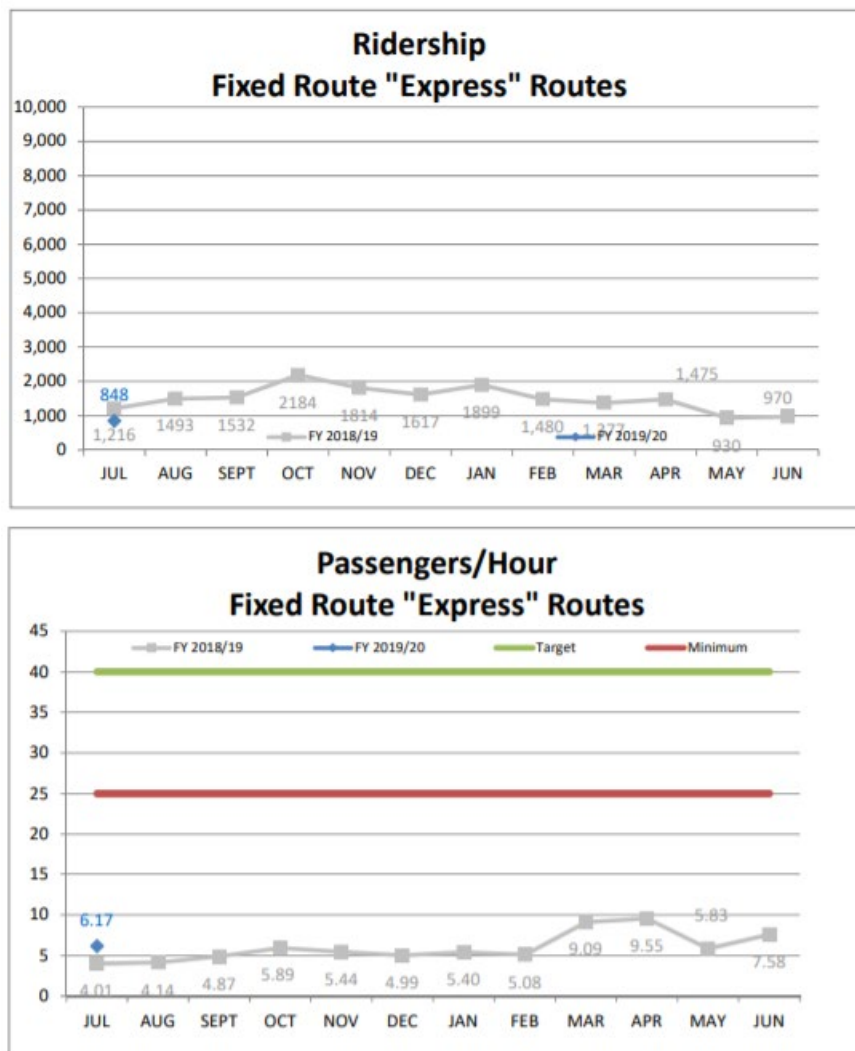
Figure 2-17 RABA Inter-city Ridership and Productivity (July 2018-July 2019)



Source: RABA, 2020

Express routes in the RABA system operate during peak periods only and are tailored to specific markets, including schools, and the Mt. Shasta Mall. Ridership and productivity for RABA express routes in FY2018-2019 are shown in Figure 2-18. Ridership ranged from a high of 2,184 boardings in October 2018 to a low of 930 boardings in May 2019. Productivity ranged from a high of 9.55 boardings per revenue hour in April 2019 to a low of 4.01 boardings per revenue hour in July 2018. Productivity for express routes was significantly lower than the minimum productivity standard of 25 boardings per revenue hour. This suggests that express routes are underperforming and may need to be adjusted in the future.

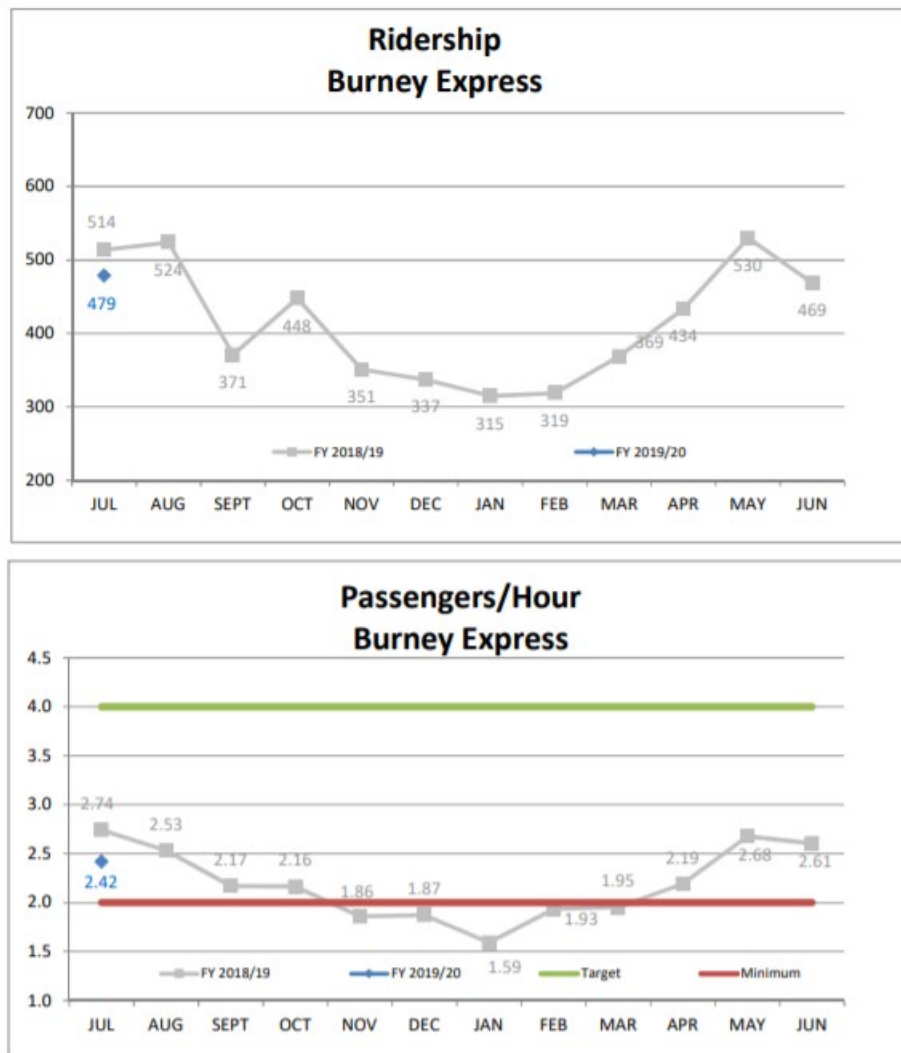
Figure 2-18 RABA Express Ridership and Productivity (July 2018- July 2019)



Source: RABA, 2020

The Burney Express route is funded by Shasta County and operated by RABA. Ridership on the Burney Express, as shown in Figure 2-19, appears to be highest in the spring and summer months. In FY2018-2019, ridership ranged from a high of 530 boardings in May 2019 to a low of 315 boardings in January 2019. Productivity ranged from a high of 2.74 boardings per revenue hour in July 2018 to a low of 1.59 boardings per revenue hour in January 2019. The Burney Express did not reach its productivity goal of 4 boardings per revenue hour during FY2018-2019 and was below the minimum threshold of 2 boardings per revenue hour for five months between November 2018 and March 2019.

Figure 2-19 Burney Express Ridership and Productivity (July 2018- July 2019)



Source: RABA, 2020

BUDGETS

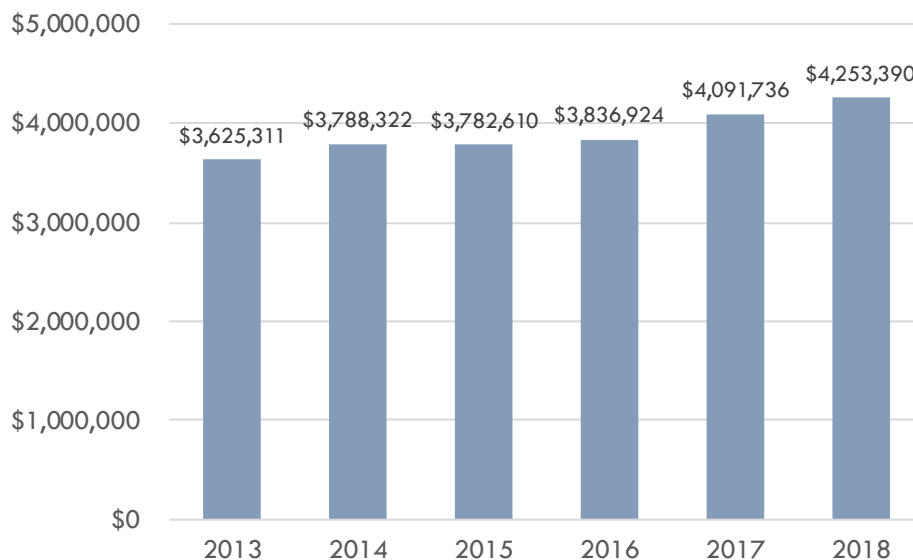
Transit Revenues, Expenditures, and Financial Sustainability

This assessment compares RABA's current financial performance with previous years. The trends identified in this section paint a data-driven picture of performance which helps to shape the vision and potential for future service priorities. This section assesses five transit performance indicators for the six-year period from 2013 through 2018. The five indicators include:

- Annual Operating Cost
- Operating Cost per Revenue Hour
- Operating Cost per Revenue Mile
- Operating Cost per Passenger Trip
- Farebox Recovery Ratio

Annual operating expenses, shown in Figure 2-20, have been steadily increasing since 2013, reaching a peak of \$4.25 million in 2018. Annual operating costs have increased by approximately 17% since 2013.

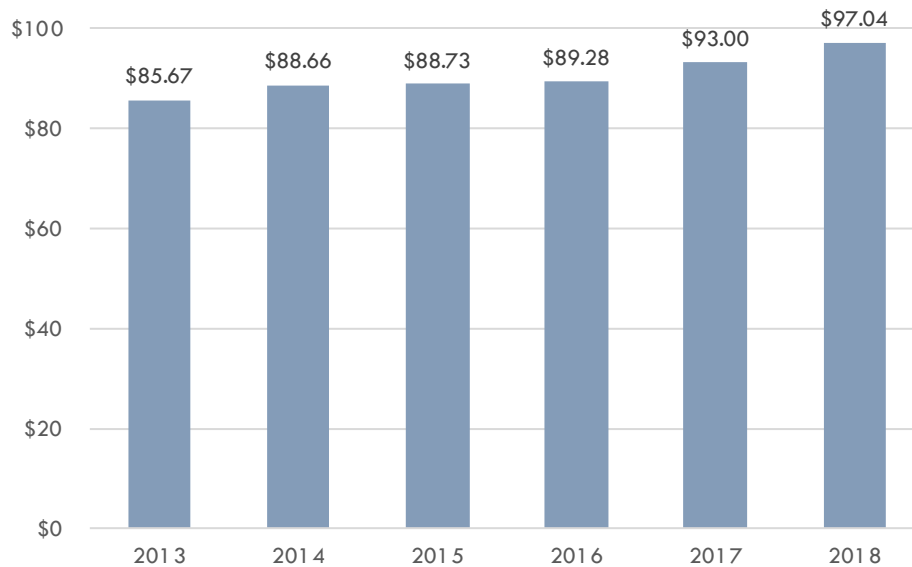
Figure 2-20 RABA Annual Operating Expenses (2013-2018)



Source: NTD 2013-2018

Similar to annual operating cost, the operating cost per revenue hour of service has also been increasing steadily since 2013, shown in Figure 2-21. Operating cost per revenue hour has increased by 13% since 2013.

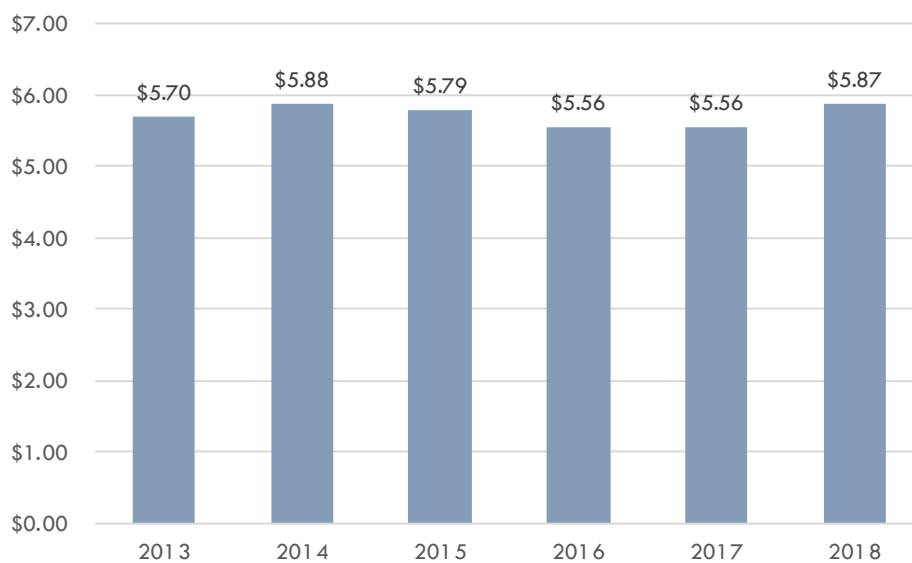
Figure 2-21 RABA Operating Cost per Revenue Hour (2013-2018)



Source: NTD 2013-2018

Operating cost per revenue mile, shown in Figure 2-22, have remained relatively stable between 2013 and 2018. Between 2013 and 2018, operating cost per revenue mile increased by 3%. Despite increases in annual operating cost and operating cost per revenue hour, the operating cost per revenue mile decreased between 2014 and 2017 before increasing in 2018. This is a result of revenue miles increasing at a significantly higher rate than revenue hours between 2015 and 2017. Over this two-year period, revenue hours increased by 3.2% while revenue miles increased by 12.6%. This is likely due in part to the implementation and expansion of the Crosstown Express service in 2016 and 2017, which operates over longer distances and at faster speeds.

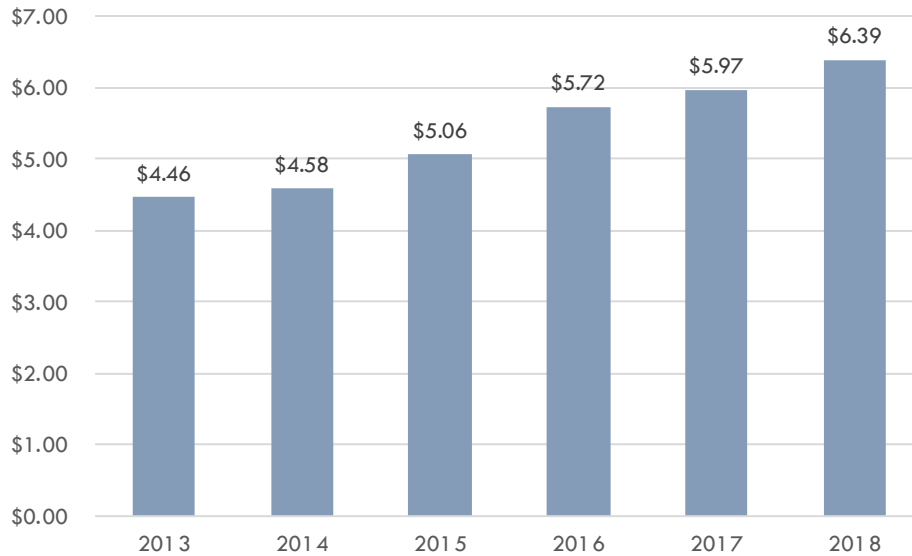
Figure 2-22 RABA Operating Cost per Revenue Mile (2013-2018)



Source: NTD 2013-2018

As operating costs have increased over this six-year period, the operating cost per passenger trip, shown in Figure 2-23, has also increased. Operating cost per passenger trip has increased by 43%, from a low of \$4.46 in 2013 to a high of \$6.39 in 2018.

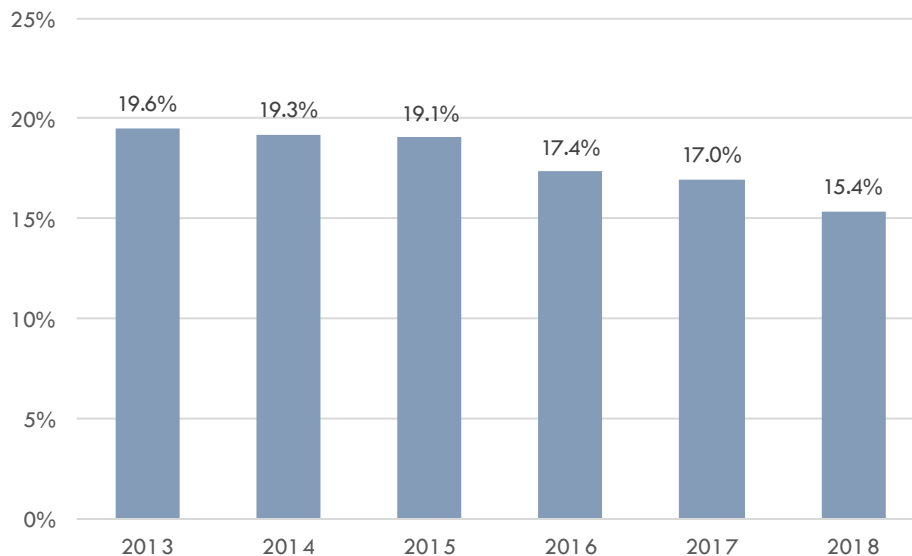
Figure 2-23 RABA Operating Cost per Passenger Trip (2013-2018)



Source: NTD 2013-2018

Farebox recovery ratio is the ratio of operating expenses met by farebox revenue. Farebox recovery ratio has been steadily decreasing since 2013. This decrease coincides with the increase in annual operating costs over the same time period. Farebox recovery ratio decreased by 21% from a high of 19.6% in 2013 to a low of 15.4% in 2018.

Figure 2-24 RABA Farebox Recovery Ratio (2013-2018)



Source: NTD 2013-2018

Capital Investments

Recent planned capital expenditures for RABA were detailed in the 2014 Short Range Transit Plan (SRTTP). These expenditures fall into three main categories:

- Vehicle acquisition and replacement
- Passenger amenity capital procurements
- Equipment and minor facilities

Actual capital investment expenditures were shown in RABA's annual Transportation Asset Management (TAM) plans. This cross comparison between the SRTTP and TAM identifies how priorities may have shifted over the SRTTP planning horizon and how expenditures and investments were actually made in the following years.

Vehicle Acquisition and Replacements

The 2014 SRTTP determined that planned optional services would result in a peak vehicle pullout of 30 vehicles, including 12 buses and 16 cutaways, in FY 2018/19. This represented a two vehicle increase in the peak fleet from the time the SRTTP was written. Maintaining a 20% fleet spare ratio would increase the total fleet size to 36 buses. Over the 5-year period from 2014-2019, RABA planned to replace 21 buses at a total cost of \$3.3 million.

Following the adoption of the SRTTP, RABA has received its first 100 percent electric, zero emissions bus, received four new paratransit vans, and has ordered five new 35-foot buses to replace vehicles in the current fleet which have reached the end of their useful life. From 2014 – 2019, RABA's fixed-route fleet decreased from 18 buses to 17 buses and the demand response fleet decreased from 20 cutaways to 17 cutaways. RABA has continued to invest in new vehicles, replacing those at the end of their useful life but has not achieved the fleet size identified in the SRTTP.

Passenger Amenity Capital Procurements

RABA allocated approximately \$1,000,000 for bus stop improvements over the course of the 5-year planning horizon. The majority of this funding was needed to improve pedestrian and ADA-compliant access to and from the bus stop in a strategic manner.

As documented in RABA's Comprehensive Annual Financial Reports for fiscal years 2014/15 through 2018/19, RABA continuously improved bus stops by adding additional bus benches, lighted shelters, sidewalk connections, crosswalks, and other concrete improvements in accordance with the SRTTP. RABA also retrofit existing shelters with solar safety lighting in 2018. RABA is also continuing to acquire solar/safety bus stop lighting with an anticipated completion by the end of fiscal year 2019/20.

Equipment and Safety

The 2014 SRTTP also planned for the acquisition and installation of automatic vehicle location (AVL) hardware, automatic passenger counters (APC), vehicle annunciators, and real time passenger information between 2014 and 2019. There were a number of other equipment and security enhancements that RABA identified in the SRTTP, including:

- Upgrades to the farebox equipment
- Replacement and upgrades to the Demand Response Mobile Data Terminals
- Security upgrades as part of the bus stop and transfer center upgrades
- Office equipment and computer replacement
- Shop equipment replacement
- Miscellaneous minor equipment

Since the adoption of the SRTP, RABA has acquired new fareboxes and the associated hardware and software. Automatic Vehicle Location (AVL) was also procured by RABA which tracks buses and aids in relaying real-time bus information. RABA has also acquired Real Time Passenger Information Systems (RTPIS) that will be used to continue work developing traffic signal priority in the city. RABA is also continuing to acquire video/safety cameras in coordination with the City of Redding IT Department with an anticipated completion date by the end of fiscal year 2019-2020. RABA's expenditures on equipment and safety appear consistent with the goals and priorities identified in the SRTP.

CHALLENGES AND OPPORTUNITIES

An in-depth assessment of the existing data, including local and regional planning documents, demographics, service characteristics, performance trends, and financial status has identified several opportunities and challenges in providing transit service in the Shasta region:

- Regional population is highly concentrated in the Redding urbanized area. however, Redding is a low-density city. The development patterns in Redding encourage automobile travel and present significant challenges for making fixed-route transit, as well as other mobility alternatives, reliable or attractive.
- Outside of Redding, Shasta County is predominantly rural with only a few focused but scattered communities throughout the county. These dispersed populations are difficult to serve with traditional fixed-route transit but present an opportunity to continue exploring innovative approaches to service delivery. Several other counties in California and Oregon face similar challenges and many have found at least partial solutions to the mobility challenges presented by this population pattern.
- There is a perceived high value on maintaining rural character and improving mobility, but it is unclear what that takes or means to everyday life.
- The cost to operate RABA service is rising and farebox recovery ratio for the agency is decreasing. To remain eligible for TDA funding, RABA must increase the farebox recovery ratio for agency and reverse the trend in declining ridership. These trends represent both a challenge for the revenue flow of RABA and an opportunity to continue improving transit service and addressing unmet needs in the community to reverse these trends. TDA funding requirements are unique to the state of California and may be altered or removed with legislative action. While farebox recovery ratio remains a key metric in the short-term, its importance may change in the long-term.

3 POTENTIAL NEW TRANSIT FUNDING SOURCES

This chapter discusses the funding sources that are currently available for transit in Shasta County and identifies potential alternative funding sources that could be leveraged to finance expanded service or capital improvements identified through this LRTP process.

CURRENTLY AVAILABLE REVENUES

Fare Box Revenues

Passenger fares are collected for all RABA and SRTA services in Shasta County, with the exception of the grant funded ShastaConnect Sunday service pilot project.

Local and State Funding Sources

Transportation Development Act (TDA)

The Transportation Development Act (TDA) provides two major sources of funding for public transportation: the Local Transportation Fund (LTF) and the State Transit Assistance fund (STA). These funds are for the development and support of public transportation needs that exist in California and are allocated to areas of each county based on population, taxable sales and transit performance. The LTF funds are generated by a ¼ cent local sales tax and STA funds are generated by a statewide sales tax on diesel fuel. STA funds may only be used for transit purposes, while LTF funds may be used for streets and roads purposes when there are no unmet transit needs that are determined reasonable to meet.

The availability of TDA funds is of critical importance to Shasta County. Approximately two-thirds of all RABA funding is derived from the STA and the LTF. Historically, a significant share of these funds has been used for street projects. State law requires that each year TDA funds first be made available for transit purposes. If no transit needs exist that can reasonably be met, the funds can then be used for street projects. The TDA distributions for fiscal year 2019/20 are shown in Figure 3-1. Total TDA funding for the region was over \$10.6 million, 48% of which was allocated to local streets & roads, compared to 24% allocated for public transit.²

² 24% LTF to public transit does not include LTF that SRTA dedicates to CTSA service, which is shown as a separate line item in the TDA Budget Summary

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SRTA

Figure 3-1 Fiscal Year 2019/20 TDA Budget Summary

TDA Funding Claim	SRTA	CTSA	Anderson	Redding	Shasta Lake	Shasta County	Regional Total
Public Transit	--	--	\$96,303	\$2,124,209	\$102,892	\$231,588	\$2,554,991
Local Streets & Roads	--	--	\$389,179	\$1,707,181	\$394,482	\$2,652,965	\$5,143,806
Other*	\$1,593,326	\$370,054	--	\$950,482	--	--	\$2,913,863
Total	\$1,593,326	\$370,054	\$485,481	\$4,781,872	\$497,373	\$2,884,553	\$10,612,660

*Other includes administrative costs, non-motorized funding, CTSA allocations, and spillover to non-motorized and city reserves

SRTA has also relied on Low Carbon Transit Operations Program (LCTOP) and Transit and Intercity Rail Capital Program funding to implement new services, including the planned Salmon Runner intercity bus service and the ShastaConnect Sunday service on-demand pilot project.

Additional non-TDA state funding sources are shown below in Figure 3-2.

Figure 3-2 Non-TDA State Funding Sources

Programs	Acronym	Purpose
Low Carbon Transit Operations Program	LCTOP	Provides operating and capital assistance for transit agencies to reduce greenhouse gas emissions and improve mobility, with a priority on serving disadvantaged communities. Approved projects in LCTOP will support new or expanded bus or rail services, expand intermodal transit facilities, and may include equipment acquisition, fueling, maintenance and other costs to operate those services or facilities.
State of Good Repair Program	SGR	The Road Repair and Accountability Act of 2017 (Senate Bill 1) established the SGR program to help fund transit infrastructure repair and service improvements. SGR funds are directed annually to the State Transit Assistance (STA) Account for eligible transit maintenance, rehabilitation, and capital projects.
Transit and Intercity Rail Program	TIRCP	Funds capital improvements and operational investments that reduce greenhouse gas emissions, expand rail service to increase ridership, integrate different rail and bus systems, and improve rail safety. Eligible projects include rail and bus capital projects, and operational improvements that result in increased ridership and reduced greenhouse gas emissions.
Affordable Housing Sustainable Communities Program	AHSC	Funds sustainable transportation infrastructure, services, and programs that complement affordable housing projects and that reduce greenhouse gas emissions.
Sustainable Transportation Equity Project	STEP	Funding helps disadvantaged and low-income communities identify residents' transportation needs and prepare these communities to implement clean transportation and supporting projects. One to three implementation grants for clean transportation and supporting projects are also funded.
Clean Mobility Options Voucher Program	CMO	Provides voucher-based funding for zero-emission carsharing, carpooling/vanpooling, bikesharing/scooter-sharing, innovative transit services, and ride-on-demand services in California's historically underserved communities.

Federal Funding

Federal Transit Administration (FTA) 5307 funds are federal formula funds administered by Caltrans for small urbanized areas, including the RABA service area. RABA has increased 5307 operational funding from its original amount of \$750,000 in 2015-16 to approximately \$1.5 million in 2019-20.³

Shasta County also relies on FTA 5311 funds, which provide capital, planning, and operating assistance to states and federally recognized Indian tribes to support public transportation in rural areas with populations less than 50,000. Between 2010 and 2019, Shasta County received between \$238,000 and \$341,000 per year from 5311 funds. SRTA and Shasta County also rely on and FTA 5311(f) funds, which provide funding for public transportation equipment and services

³ SRTA FY 2019/20 Unmet Transit Needs and Transportation Development Act Budget Staff Report Attachment C: SRTA 2019/20 TDA Apportionments and Transit Obligations

connecting rural areas to urbanized areas. Previously, this funding has been used for an airport service feasibility study and to fund the Burney Express service. In 2019, SRTA distributed over \$84,000 to Shasta County in 5311(f) intercity bus program funding and over \$328,000 to Shasta County in 5311 rural area formula grants funding.

Specifically for capital expenditures, FTA 5339 funds provide capital funding to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. SRTA has only distributed 5339 funds to RABA and has not distributed such finding since fiscal year 2016. Between fiscal year 2013-2016, RABA received an average of approximately \$166,000 per year in 5339 funding.

Federal formula fund programs are shown in more detail in Figure 3-3 and federal competitive grant programs are shown in Figure 3-4.

Figure 3-3 Federal Transit Administration – Formula Funds

Formula Programs	Acronym	Purpose
Metropolitan Planning Program	5303	Supports urban areas in planning activities to develop and improve public transportation systems.
Small Urbanized Area Formula Program	5307	Supports public transit capital and operating in urbanized areas with populations under 200,000.
Rural and Small Transit Formula Program	5311	Supports public transit capital and operating in non-urban areas.
Bus and Bus Facilities Program	5339	Provides capital funding to replace, rehabilitate, and purchase buses, vans, and related equipment, and to construct bus-related facilities.

Figure 3-4 Federal Transit Administration – Competitive Grant Programs

Grant Programs	Acronym	Purpose
Intercity Bus Program	5311(f)	Designed to address intercity travel needs of residents in non-urbanized areas of the state by funding services that provide access to the intercity bus and transportation networks in California.
Statewide or Urban Transit Planning Grant Studies	5304	Addresses transit planning issues of statewide or regional significance. Planning studies are intended to improve transit services and to facilitate congestion relief by offering an alternative to the single occupant vehicle.
Elderly and Disabled Specialized Transit Program	5310	Provides capital grants for meeting the transportation needs of elderly persons and persons with disabilities in areas where public mass transportation services are otherwise unavailable. Allows for the purchase of ADA accessible vehicles, communication equipment, mobility management activities, and computer hardware and software.
Low or No Emission Vehicle Program	5339(c)	Provides funding to purchase or lease low or no emission transit buses and related equipment, or to lease, construct, or rehabilitate facilities to support low or no emission buses.
Mobility on Demand (MOD) Sandbox Demonstration Program	5312	Funds projects that promote innovative business models to deliver high quality, seamless and equitable mobility options for all travelers.

Grant Programs	Acronym	Purpose
Accelerating Innovative Mobility	AIM	Includes \$11 million in challenge grants to help transit agencies experiment with new ways of doing business, such as exploring new service models that provide more efficient and frequent service.

Alternative Funding Strategies

In addition to fare revenue and government funding programs, there are several alternative funding strategies available to public transit agencies, including public private partnerships and resource pooling.

Public-Private Partnerships

Public-private partnerships have become a commonly used strategy for transit agency revenue generation in recent years. Among the most common of these partnerships is negotiating service delivery and pass products with large employers, universities, or advocacy groups in a city or region. In Redding, RABA currently uses such a partnership to provide passes to students at Shasta College and Bethel School of Supernatural Ministry.

These partnerships are unique in nature and generally negotiated on a case-by-case basis. Bulk pass programs typically involve negotiating a lump sum price or a price per trip to be paid to the agency by the organization receiving passes. As these programs mature, renegotiation may be necessary as ridership patterns evolve and costs change for the agency.

Public-private partnerships can also be used for an agency to directly fund specific services or improvements to specific services. In these cases, major employers may make direct payments to the agency to as reimbursement for services to and from their office locations or to improve frequency of existing routes. The negotiations and marketing for this type of partnership is more complicated than providing bulk passes but has the potential to significantly increase ridership with little to no additional costs to the agency.

Resource Pooling

While less of a direct financing strategy, pooling resources with existing social service transportation providers and other partner agencies makes resource allocation more efficient and allows for better economies of scale. In the Shasta region, this type of resource pooling partnership is not currently in use but could be explored with RABA or Dignity Health Connected Living to identified opportunities to share resources and reduce overall financial constraints around the planning, administration, and operations of fixed-route and paratransit service.

In the 2017 Shasta Coordinated Transportation Plan, the first challenge to coordination identified is resource constraints. The plan notes that coordination is an ongoing process and organizations may find it challenging to pursue coordination due to limited resources in terms of staff availability, interest, leadership, and funding. While this is certainly a real challenge, the constraints on resources also provide an opportunity to pool shared resources with partners and improve service delivery by using existing resources more efficiently. This approach could include things like shared dispatch centers and software procurement or collaborative planning processes to reduce duplicative work and explore interagency grant opportunities.

POTENTIAL NEW SOURCES OF REVENUE

Local Funding Sources

Local Sales Tax

Transit service in Shasta County is currently funded with a 0.25% local sales tax. In the state of California, counties, municipalities, and districts are allowed to increase the sales tax in specific jurisdictions up to a total of 10.25%. The current state and local sales tax rate for Shasta County is 7.25%, except in the city of Anderson, which has instituted its own 0.5% local sales tax for a cumulative rate of 7.75%. This means that Shasta County has the option of increasing sales taxes by as much as 2.75% (2.25% in Anderson) through a voter approved sales tax increase. Such a sales tax increase would contribute to the LTF and be eligible for:

- TDA administration costs
- General public transit operations and capital
- Transit-related research and development projects
- Consolidated Transportation Services (CTSA)
- Administration of transit contracts
- Elderly and disabled transit
- Bicycle and pedestrian projects
- Contract payments for transit services
- Local streets and roads
- Multimodal transportation terminals

Potential Revenue. In fiscal year 2018-2019, Shasta County generated approximately \$8.5 million in sales tax revenue for the LTF. Increasing the sales tax rate for the LTF from the existing 0.25% to 2.00% would reach the maximum allowable tax rate of 10.25% in Anderson and 9.75% countywide. This increase to the tax rate dedicated to transit represents a maximum potential annual revenue of approximately \$67.6 million based on fiscal year 2018-2019 tax revenues. While this figure represents the maximum potential sales tax revenue, a smaller increase would be more realistic to pursue.

Reliability. Increased reliance on sales tax would make revenue more dependent on economic conditions. Sales tax is volatile; receipts can vary substantially with the ups and downs of the state, regional, and local economy. Very little administrative costs would be added since there is an existing administrative apparatus that levies, collects, and remits the tax revenues.

Equity. Tax structures that rely on sales tax are generally regressive, with the lowest income households paying a higher percent of income for total excise and property taxes and the highest income households paying a smaller percent of income for the same taxes. Sales tax is the main cause of this regressive impact. The impact of the regressive tax also falls harder on low-income and minority populations. Relying on a sales tax for additional funding further pushes the balance of state and local funding toward local sources.

Political Feasibility. Recent sales tax measures in Shasta County have had mixed success in terms of voter support. A proposed 1% sales tax increase under Shasta County Measure A (March 2020) and 0.5% sales tax increase under Redding Measure D (November 2016) were both rejected by voters. While neither Measure A (public safety) nor Measure D (general fund) would

have provided transportation specific funding, they may be indicative of the local appetite for sales tax increases. In 2014, voters in the Shasta Lake approved the Measure C Medical Marijuana Sales Tax (November 2014) and voters in Anderson approved a 0.5% sales tax increase for public safety through Measure A (June 2014). While a voter approved sales tax increase represents the largest potential new revenue stream, the political feasibility in Shasta County makes this an unlikely source of funds until the voting citizens of the area decide that additional funding for any public purpose can improve the community in some important way.

State and Federal Funding Sources

Shasta County has generally relied on available state and federal funding sources more heavily than local sources. SRTA and RABA should emphasize coordination in service investments and program delivery to leverage the available funding identified in Figure 3-2, Figure 3-3, and Figure 3-4 on a regional level to maximize the effectiveness of limited funds.

In terms of state funding, LCTOP, SGR, TIRCP, and AHSC have all been used or pursued in the past for ongoing operations, pilot projects, and new service investments. There are additional opportunities to continue exploring potential funding from STEP and CMO programs. Federal formula funding from Section 5307 and 5311 will continue to play a large role in transit funding for RABA and SRTA. Competitive grant programs in the past have been pursued on a targeted basis and may provide an opportunity for additional ongoing funding.

Alternative Funding Strategies

While previously identified as currently available funding sources, public-private partnerships and resource pooling should continue to be explored as ongoing potential new sources of revenue. Engaging in ongoing discussions with major employers in the region is a key step for consensus building, identifying needs and priorities, and securing partnerships throughout the region. Potential partners include:

- Bethel Church
- Blue Shield-California
- Mercy Medical Center
- Redding Medical Center
- Redding Rancheria
- The McConnell Foundation

CHALLENGES AND OPPORTUNITIES

A thorough assessment of existing and potential public transit funding sources in Shasta County has identified potential challenges and opportunities within the region:

- The requirement that unmet transit needs be “reasonable to meet” with a locally adopted policy that defines “reasonable to meet” as likely to achieve the TDA required fare box recovery threshold for the entire transit system in order to apply TDA funding to meet the need has presented significant challenges for transit in Shasta County, requiring a greater reliance on grant funding. Application of this definition results in about between 75% and 40% of available TDA revenues being used for purposes other than transit in the region. This situation is the direct result of the structure of the state’s TDA funding laws. The

primary metric deployed to determine the feasibility or desirability of new or improved transit service is farebox recovery rather than any other potential measure of community or rider benefit as a way to measure the “reasonable to meet” standard.

- Exploring additional public-private partnerships with major regional employers, healthcare and hospital networks, and non-profit organizations provides an opportunity for additional agency revenue and resources, either through bulk pass programs, directly funded service, or partnership programs.
- While politically unlikely in the current financial climate, a sales tax increase represents the largest potential opportunity for additional transit funding in Shasta County. The potential revenue from such an increase should be assessed in greater detail along with all other potential sources of revenue to create a maximum alternative funding scenario for the California Air Resources Board (CARB)-dictated regional greenhouse gas reduction target setting and SCS evaluation process. However, it must be recognized that these state laws cannot force local voters to approve a sales tax increase for transit. That is, and will remain for the foreseeable future, a process directly dependent on local determination.
- While new funding sources and partnerships are possible and highly desirable it is highly unlikely that these sources will be adequate to meet the aspirational goals in the Sustainable Community Strategy to either increase transit service to the goal levels established in the SCS or reach the desired mode split for travel in the region. While accessing these alternative funding sources to improve public transit may create community momentum for broader financial support of transit funding, transit improvement in the Shasta region will be an on-going challenge. The continued effort to create new funding sources will create significant “friction” for forward progress absent some exogenous factor that shifts local thinking about mobility.

4 EVALUATION OF RECENT TRANSIT ENHANCEMENT INITIATIVES

This chapter discusses recent transit initiatives which have been planned for Shasta County. Out of the three services, only one service – ShastaConnect Sunday Service was running briefly from October 2019 to March 2020. All of these services are currently suspended due to COVID-19. Re-start, or start, dates for these initiatives remain unknown at the time this document was written (June 2020). Because of the current nature of these pilots, it is too early in the process to reach conclusions about the success of the service or lessons learned from the pilot. Those over-arching conclusions will need to be revisited as the pilots mature.

The TDA allocation process only allows LTF funds to be utilized for transit improvements if the unmet needs are determined to be “reasonable to meet.” Recent transit initiatives have not been deemed to meet this criterion and instead have primarily been grant funded or funded through philanthropic organizations. Due to the nature of these funding sources, recent initiatives have largely explored alternative services, rather than traditional fixed-route transit. Exploration of alternatives is a positive step. The demographic and geographic make-up of the region make the area an ideal location for greater deployment of non-traditional transit services and designs. These service types are designed to meet the unique criteria associated with the funding source, including intercity bus service and new, fare free on-demand Sunday service to qualify for LCTOP funding.

These are pilot, or demonstration, services. A key reason to use this method of introducing new services is to learn if an alternative service type could be deployed long-term to meet specific community goals. It is also important to learn the specific ins and outs of operating a specific service. In offering pilot services either success or failure are legitimate outcomes. Test the concept for fit and operational feasibility, learn what can be learned, then decide on the long-term. There are two key factors that must be a part of a successful pilot service, regardless if the service is adopted for long-term deployment.

- 1.) Ensure “success” is defined ahead of the pilot. What metrics, specifically, will be used to determine the potential for the pilot service to meet community needs in the future?
- 2.) Set up the pilot to allow changes in deployment or use as the pilot proceeds. Too often some seemingly minor detail of a service becomes a pivotal factor in a service success or failure. A mid-stream adjustment to that minor detail may make the difference between discovering a service that has community benefit versus running a pilot just to run a pilot.

SALMON RUNNER INTERCITY BUS

The Salmon Runner service has not yet been implemented, so there are few identifiable operating costs, impacts, and lessons learned associated with this service. However, the assumptions and projections outlined in the Salmon Runner business plan provide context and estimates for potential impacts and outcomes of the service.

The Salmon Runner Intercity Bus service was developed to address an unmet need in the North State region and to provide convenient, cost effective transportation between Redding and Sacramento. The service is connected to a feeder system from Butte, Glenn, and Tehama counties with future connections planned to other rural northern California counties. The Salmon Runner was awarded \$8.461 million in 2018 from the Transit and Intercity Rail Capital Program (TIRCP) which was for capital equipment use.

Using multiple source data, including mobile source data, annual ridership for the entire system's first year is estimated to be approximately 58,500. Annual ridership is projected to increase annually based on marketing, system familiarity, system optimization, and planned expansion. Figure 4-1 shows the estimated ridership at full implementation of the Salmon Runner bus system as being implemented with the I-5 Backbone and North Valley Feeder.

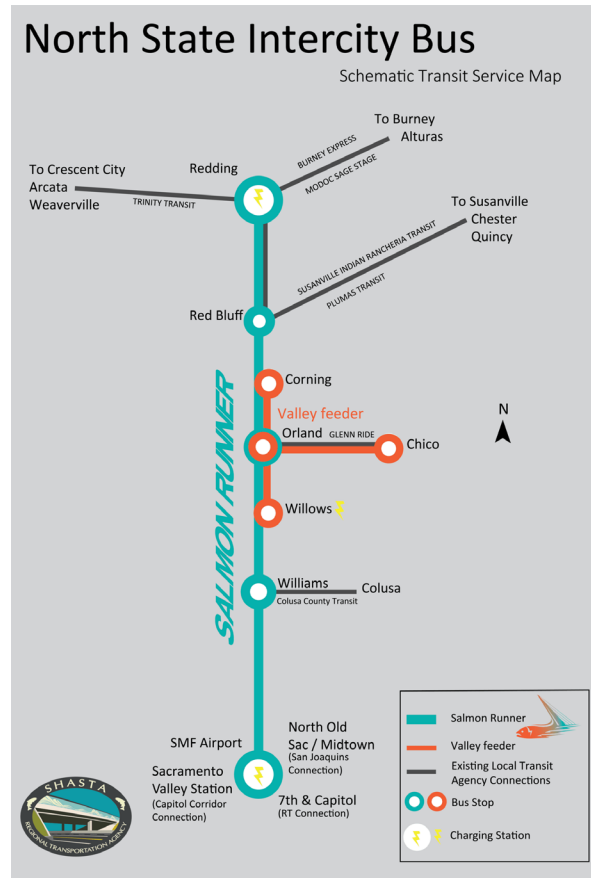


Figure 4-1 Salmon Runner Ridership Projections

Route	Ridership Estimates		
	Year 1 Ridership	Year 12 Ridership	Daily Average
I-5 Backbone	31,218	31,402	85.79
North Valley Feeder	27,288	27,450	75.00
Full System	58,506	58,852	161.00

The Salmon Runner will eventually use seven battery-electric buses. Each bus will be selected during the procurement process to meet the range and capacity needs of the route it serves. An overview of vehicle needs to operate the Salmon Runner is shown in Figure 4-2. The I-5 Backbone will use five 40 foot plus buses, with three vehicles charging in Redding each night and two charging in Sacramento. The North Valley Feeder will use two smaller transit vehicles with a higher mileage range.

Figure 4-2 Salmon Runner Vehicle Requirements

General Vehicle Needs					
Route Name	Number of Vehicles	Trip Mileage	Absolute Range Necessary	Seats	Approximate Charge Time
I-5 Backbone	5	170	238	30+	3 hours
North Valley Feeder	2	140	196	20+	2 hours, 20 minutes

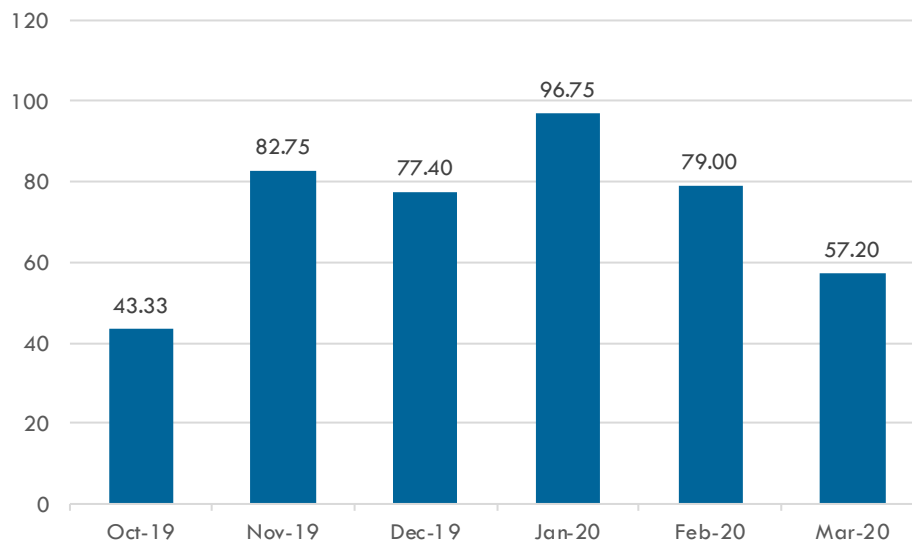
The Salmon Runner would provide an affordable mode of transportation between Northern California communities. Fares are structured so that the highest fare is \$20 and the lowest is \$5, allowing exceptions for current services to continue offering lower fares for short distances.

SHASTA CONNECT SUNDAY SERVICE PILOT PROJECT

The ShastaConnect fare free on-demand Sunday service pilot project was developed to address an identified unmet transit need. Trips are scheduled through a smartphone application or call in number. A single reservation can accommodate up to six passengers. ShastaConnect is intended to gauge demand for Sunday service, while testing whether on-demand mobility options are a cost-effective way to meet this demand.

ShastaConnect was in operation for just over five months (October, 2019 – March, 2020) before temporarily suspending service due to the COVID-19 pandemic. Average daily ridership over this period, as shown in Figure 4-3, nearly doubled from October to November and appeared to have stabilized over the next four months before declining in March 2020. This decline is likely due to the statewide stay-at-home order issued in California on March 19, 2020. Additionally, SRTA made a concerted effort to limit marketing for ShastaConnect until dispatching software could effectively scale up to meet existing demand, reducing the potential ridership on the service.

Figure 4-3 ShastaConnect Average Daily Ridership by Month



Source: SRTA, 2020



Funding for ShastaConnect is primarily limited to LCTOP funding. These funds support new or expanded projects if they reduce GH emissions. One of the requirements of LCTOP funding is that the service needs to use free fare vouchers, meaning that the service would be free to all users. There is no known free on-demand public transportation service, so the ridership and demand levels were very uncertain during project initiation. ShastaConnect is currently funded through October 2021 and may need to institute fares if grant funding is no longer available.

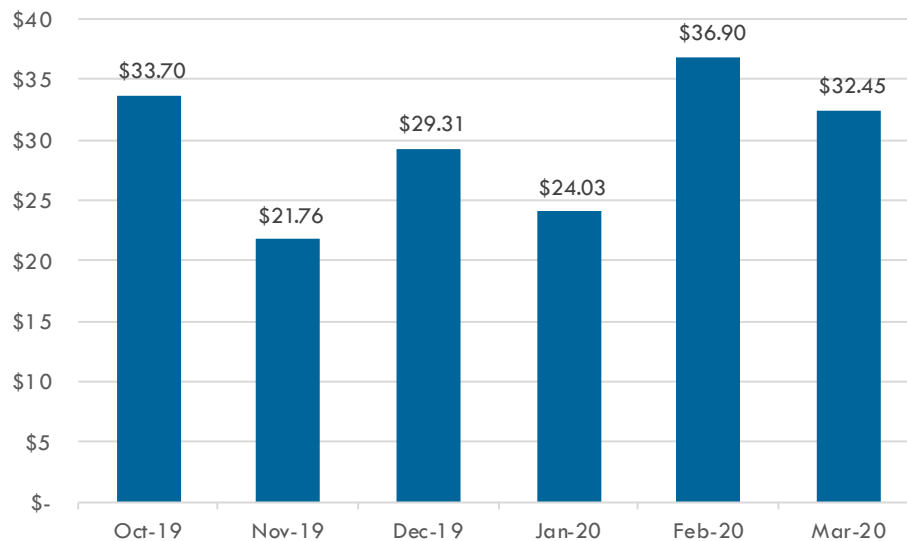
The Sunday On-Demand Transit Service Demonstration project Business Plan lays out 11 targets for the following performance measures and targets, as shown in Figure 4-4.

Figure 4-5 shows the cost per passenger trip for ShastaConnect over the roughly five-month operating period. Cost per passenger fluctuated from a high of \$36.90 in February 2020 to a low of \$21.76 in November 2019. While the ridership and financial history are short-lived, it is important to note that the cost per trip was lowest in November 2019 and January 2020, which also coincide with the highest ridership months for the service. This is a positive trend, but because the ShastaConnect pilot was disrupted, it is unclear whether this on-demand service is a cost-effective method for providing Sunday service. Ridership and cost per passenger trip should continue to be monitored as service is reintroduced.

Figure 4-4 ShastaConnect Performance Measures

Performance Measure	Target Standard
Passengers per Hour	4.5
Cost per Vehicle Revenue Hour	\$42.58
Average Annual Subsidy per Trip	\$11.43
Passengers per Revenue Mile	0.2
Denied Trips	0
Number of Valid Complaints	0
Number of Missed Trips	0
On-Time Performance	90%
Trips Exceeding Maximum Wait Time	Less than 5%
Trips Exceeding Maximum Ride Time	Less than 5%
Seat Utilization	25%

Figure 4-5 ShastaConnect Cost per Passenger Trip by Month



Source: SRTA, 2020

The ShastaConnect program builds upon research and analysis performed as a part of the Shasta Lake Microtransit Feasibility Study, which presents several relevant key findings for long-term adoption of an on-demand transit program. These findings include:

- Riders would have to pay higher fares if they are transferring to RABA
- Challenges to achieve minimum farebox recovery ratio required under TDA
- Existing RABA riders would no longer be part of a cohesive transit system

While these challenges were identified as a part of a separate planning process, they are applicable to any microtransit or on-demand service within the RABA service area.

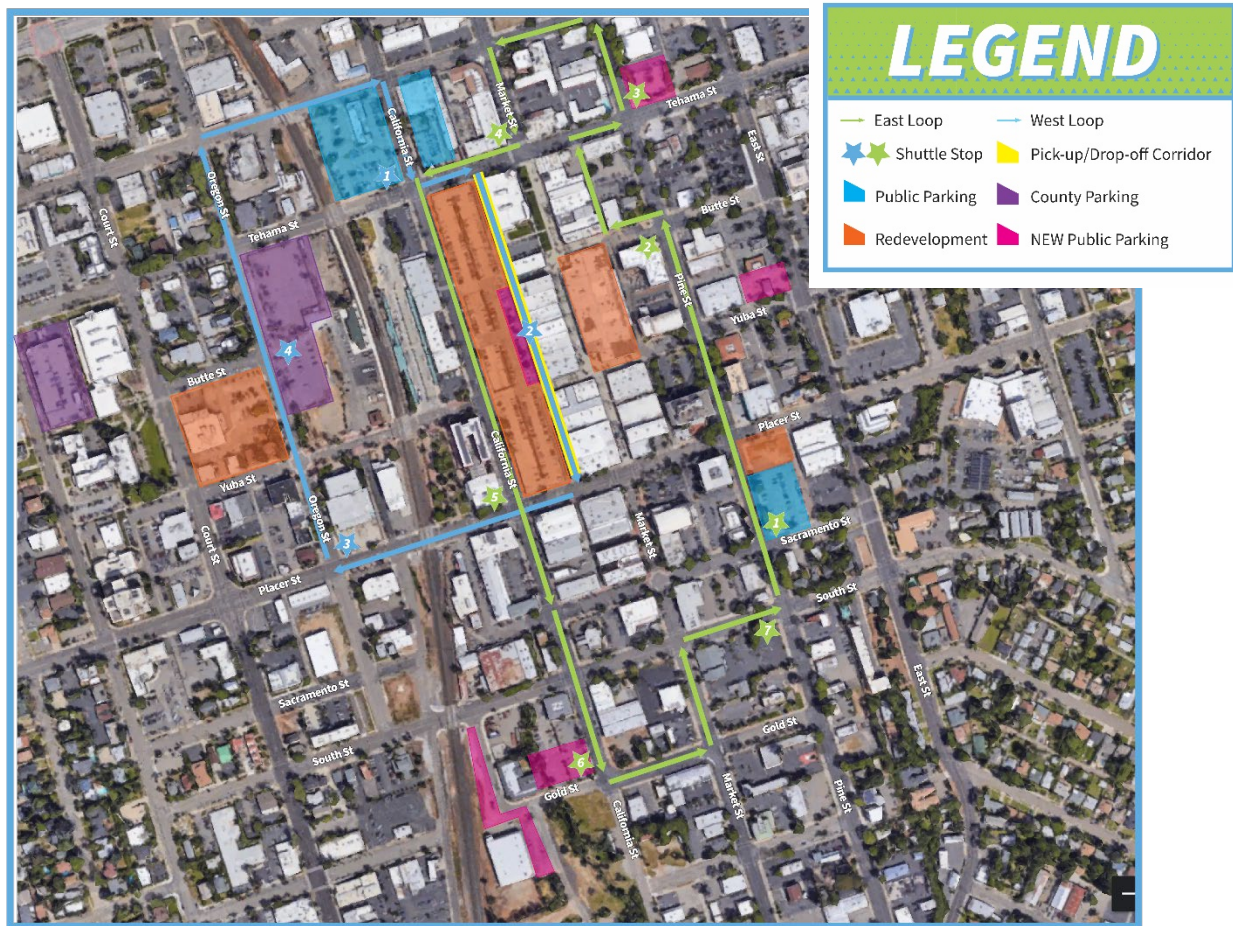
DASH DOWNTOWN SHUTTLE

The Downtown Area Shuttle (DASH) is a fare free service that is planned for downtown Redding. The service was scheduled to launch in mid-March 2020 but was delayed due to COVID-19 impacts. DASH service was developed as a partnership between the McConnell Foundation, City of Redding, Redding Police Department, and Redding Electric Utility with additional support from other downtown organizations.

DASH service was planned in response to removing a central parking structure in downtown Redding to support ease of motion throughout downtown during the ongoing construction. DASH is intended to transport those who live, work, and play in downtown Redding into the city's center from outlying parking lots, connecting them with shops, restaurants, and attractions. The shuttles will run on two distinct loops, shown in Figure 4-6, which will circle every eight to ten minutes at designated shuttle stops. DASH is tentatively scheduled to run Monday through Friday at three peak travel times:

- 6:45 am – 8:45 am
- 10:30 am – 1:30 pm
- 3:30 pm – 5:30 pm

Figure 4-6 Planned DASH Routes



CHALLENGES AND OPPORTUNITIES

Recent transit initiatives in Shasta County are impacted by matching available funding in the region to opportunities. Recent innovations in public transit have relied primarily relying on grant funding. This approach presents a number of challenges and opportunities for future service improvements in the region:

- The requirement that unmet transit needs be “reasonable to meet” in order to qualify for LTF funding presents a significant challenge to improving existing service and investing in new service types, or even using that funding for pilot services. Additionally, determining which agency or entity will operate integrate pilot projects and integrating new services with existing services further complicates the issue.
- SRTA’s ability to leverage available grant programs into alternative service models and improvements represents an ongoing opportunity to continue implementing pilot projects and developing case studies for new services.
- As SRTA continues implementing pilot projects, a review of lessons learned, best practices, and guiding documentation will ensure ongoing success of recent and future improvements. The situation presents an opportunity to ensure successful pilot projects and a better position for the agency to leverage grant opportunities in the future.

- A challenge for SRTA is to continue to explore new funding mechanisms for programs that are not pilots and that require on-going funding for success and/or sustainability. For example, if the ShastaConnect Sunday service pilot is determined to be successful, a challenge will be that it is unknown if the service can be partially sustained by fares (as the demonstration service is being operated fare free) and if the potential revenues generated will offset enough of the cost of the service to qualify for TDA funding allocation under the current policy of needing to demonstrate the ability to meet TDA farebox recovery standard (15% fare box recovery ratio). This situation is a significant challenge to establishing funding for innovative services if they made it through a successful pilot.