Appendix A Existing Conditions Reports

GOVERNANCE AND COORDINATION

January 2019

1 OVERVIEW

Transit service within Sonoma County is provided by three local entities, each managing its own program. These local operators then coordinate services with regional carriers that connect to neighboring jurisdictions and the rest of the region. The current organizational structure of the transit agencies operating in Sonoma County is as follows:

- **Sonoma County Transit:** Sonoma County Transit is a part of the Public Works Department of Sonoma County. The transit system provides service throughout most of Sonoma County. The County Board of Supervisors is the policy body for transit under County management.
- **Santa Rosa CityBus:** The City of Santa Rosa operates public transit within the city limits as a division of its Public Works Department. The City Council of Santa Rosa functions as the policy board for transit.
- **Petaluma Transit:** Petaluma Transit operates as a division of the City Public Works Department, providing services within the Petaluma city limits. The City Council of Petaluma functions as the policy board for transit.

CONTEXT

Most of the transit agencies in California have been in operation for many years. Some date to the 1960's, when private operators were disappearing due to declining farebox revenues, dramatically increased automobile usage, and lack of private capital to maintain and improve transit infrastructure. The introduction of federal funding to transit in the 1960's began the shift to public operation. This and later developments, such as the passage of the Transportation Development Act (TDA) in California in 1971, allowed communities to begin rebuilding existing transit operations or to create entirely new transit programs.

As the population of California grew dramatically through these years, many local transit systems found themselves to be components of increasing regionalization. Communities spread and boundaries became less obvious. Movement across boundaries for employment and housing reasons became the norm. This increasingly common pattern began to challenge the structure of transit service delivery, as individual travel patterns often no longer fit the original service deployment schemes.

There is evidence of this phenomenon in Sonoma County. Historically, many communities in Sonoma County operated their own small transit systems. Services existed in Sebastopol, Healdsburg, and Sonoma. In a logical pattern of service refinement, these small systems were gradually absorbed into the larger County operation and are now part of Sonoma County Transit. A similar trend has been evident in many other communities around the State, sometimes taking the form of entirely new transit agencies with broader geographic reach but a single-purpose focus.

With this trend there has emerged an interest in better service coordination. This is in part a recognition that transit services are facing increasingly complex travel patterns and transit operators must find ways to facilitate movement by the riding public across boundaries, and thus across systems, in order to fulfill travel needs. Further, the creation of Transportation Networking Companies (TNCs) such as Uber and Lyft, has further challenged transit operators to serve riders, many of whom have more travel options than ever before. TNCs offer services across jurisdictions

with no transfers, no complicated fare structures, or long curbside waits. Their burgeoning presence also suggests the importance of convenience and overall travel time over cost as the determinant in mode selection.

Travel patterns and technology are changing faster than public transit, in part due to the pace of public decision making. The regulatory requirements affecting transit decisions add time to the evolution of service that leaves transit chasing change instead of leading it. This is exacerbated in situations where multiple jurisdictions operate transit systems and thus face decisions relating to service deployment that affect neighboring systems, with no formal mechanism to ensure coordination. This is the case in Sonoma County.

ORGANIZATIONAL STRUCTURE

There are several models of organization structure among transit agencies in California. Among the major alternatives are the following:

- **City transit department:** Transit may be provided as a service of local city government. In this circumstance, it is common for transit to be one of the components of the public works department. While reporting relationships of staff can vary, it is typical for the transit manager to report to the public works director who then reports up the organization ultimately to the city manager.

  Governance under this structure is provided by the city council. The elected councilmembers are ultimately responsible for transit decisions such as fare policy, operating and capital budgets, major contracts, interagency agreements, and regulatory compliance. The transit manager is supported by staff assigned directly to the transit department as well as by general city staff in other departments that do not report directly to the transit manager.

  These other support functions often include accounting and finance, human resources, legal services, and information technology (IT). The cities of Santa Rosa and Petaluma are generally structured in this fashion. The Santa Rosa City Council consists of seven members. A change in city ordinance effective November 2018 provides for the shift from an at-large council to district-based representation. Full conversion to district representation will occur by December 2020. The City of Petaluma is governed by a city council consisting of seven members elected at-large.
- **County transit department:** At the county level, transit service is typically provided in a structure much like that of a city. The county transit department is often structured under the umbrella of the public works department reporting up through the structure to the county chief administrative officer.

  In the county structure, the elected board of supervisors is the body with ultimate responsibility for decisions much like the city structure. Sonoma County Transit is structured in this manner.
- **Joint Powers Authority:** A Joint Powers Authority (JPA) is a form of government organization created by other governmental entities pursuant to Section 6500 of the Government Code. A JPA may be formed by agreement between two or more jurisdictions.

  Throughout California there are a number of transit organizations that are structured as JPAs. JPAs are independent organizations with their own

governing bodies, as set forth in their JPA agreements. The board of a JPA is a governing body dedicated to transit policy making.

Some JPAs in Northern California have existed and operated for more than thirty years, while others have formed in recent years. Formation of a JPA creates a new public agency with many of the rights and duties of their formation partners. This typically includes the ability to employ staff, award contracts, receive and disburse public funds, own property, and design and deploy services.

JPAs are formed through a local process and thus are not created by action of the California legislature. They can be granted authority to levy taxes, or can be the beneficiary of taxes levied at city or county levels.

- **Special Districts:** Special districts are typically created through enabling legislation passed by the California legislature. Their rights and obligations are set forth in State law. This includes their governing structure. Special districts can be granted taxing authority under defined circumstances. Sonoma-Marin Area Rail Transit (SMART), Sacramento Regional Transit (SacRT), Los Angeles County Metropolitan Transit Authority (LACMTA), and Bay Area Rapid Transit District (BART) are all examples of special districts created through state legislative action.

The organization structure of a transit agency can have a significant impact on the relationship between the governing agency and the riding public. Alternative governing structures offer different opportunities for public access to transit decision-making. In the city and county models, decisions are made by the respective councils or boards.

These general purpose government boards are responsible for all functions and activities in their respective jurisdictions, transit being only one of many. These boards are also responsible for police and fire protection, other emergency services, finance, public works, and more. Transit may not have a high position in the decision priority structure of the jurisdiction.

In contrast, a typical JPA is a dedicated transit agency with a governing board that is usually single purpose, although board members are frequently elected officials from jurisdictions that are members of the JPA.

2 DISCUSSION

Some approaches to transit agency coordination do not involve full consolidation. A brief review of additional options follows. Several case studies of recent Joint Powers Authority formations are provided as well, as background for that option. Input from the participating transit agencies suggests that their management teams do interact on a routine basis regarding issues of service changes, fares, and even outside contracting. The options presented here go beyond informal agreements to cooperate.

Interagency Agreement

Interagency agreements entail more formal agreements to coordinate certain functions. In Sonoma County, there may be opportunities to better coordinate service delivery and improve the quality of service for paratransit riders.

One approach to this has been employed by the East Bay Paratransit Consortium for many years. The East Bay Paratransit Consortium is an interagency agreement between AC Transit and BART. It is a formal agreement that establishes a structure for the delivery of paratransit service required of these two overlapping agencies. The East Bay Consortium establishes, by written agreement, a joint oversight office with staff participants from each agency. Under this agreement a firm was retained to represent and manage both agencies in joint procurement and the oversight process for paratransit services. This office, serving much like a broker, manages the procurement process for a paratransit vendor, oversees service quality provided by that vendor, and provides the necessary link to each of the transit agencies. Routine management oversight of the consortium office rotates between AC Transit and BART on a regular basis to ensure equal participation.

Such an interagency agreement approach could be applied in Sonoma County. For the paratransit function and perhaps other service elements, an agreement, or several agreements, could be negotiated between the participating jurisdictions to provide a similar joint management structure. The details of the arrangement would be contained in a contract or memorandum of understanding. The approach to joint oversight and decision-making would be set forth in the contractual agreement, with checks and balances to guarantee the appropriate level of representation to each participating jurisdiction. An interagency agreement approach could also be considered for interagency marketing, web services and web presence, or other technical functions. The key distinction between such an approach and the current informal agreements between transit managers would be the elevation of such coordination to the council and board level for agreement, and the resulting codification of expectations and performance criteria.

Joint Policy Setting

Short of full interagency operating agreements, the cities and county could formally agree to an operating policy decision process to address such issues as fare structure and transfer policy. This would be a council and board-level collaborative process to establish uniform policies that would apply to all operators in the County. It could be done on an issue-by-issue basis.

For example, a process could be formalized whereby each governing body would agree to make joint decisions on an element of fare policy. This would presume that implementation of an approved policy would then be left to the individual jurisdictions to accomplish. Such a formal approach to policy setting could be an incremental way of improving coordination, possibly

leading to more extensive approaches such as interagency operating agreements or some form of consolidation.

CASE STUDIES OF RECENT JOINT POWERS OF AUTHORITY FORMATION

A substantial level of activity in recent years has involved transit agency restructuring and consolidation. The case studies below offer approaches or issues to consider when evaluating options for Sonoma County.

Eastern Sierra Transit Authority

The Eastern Sierra Transit Authority (ESTA) is a Joint Powers Authority formed in November 2006. It brought four jurisdictions together into a new transit agency: Inyo County, Mono County, the City of Bishop, and the Town of Mammoth Lakes.

The four jurisdictions collaborated to create the new agency. Transit service throughout the area had previously been run by Inyo County. The JPA was formed to better integrate transit services throughout the region and to create a governance structure that afforded participation in decision making to all jurisdictions in the service area. ESTA took over operation of transit services from Inyo County on July 1, 2007.

The governance structure of the new agency was established as an eight-member board of directors. Each of the four-member jurisdictions appointed two of its elected representatives to the Board of ESTA. Each jurisdiction is afforded equal representation on the Board. Representation thus is not related to the amount of funds contributed by each participating jurisdiction nor its service level.

While under County management, transit service was operated in-house with agency employees. The new structure continued the provision of service with agency employees. The employees of the Authority were organized into an employee association with bargaining rights under the Meyers-Milius-Brown Act. The new Authority assumed responsibility for this arrangement and negotiated a new agreement with the employees as one of the early official acts following formation.

Solano County Transit

Solano County Transit (Soltrans) was formed through a Joint Powers Agreement. The JPA agreement was initially approved by a coordinating committee formed by the cities of Vallejo and Benicia and the Solano Transportation Authority in May 2010. It was finalized through additional negotiations and became operational in 2011.

The agreement forming Soltrans called for a governing structure consisting of five voting members and one ex-officio member. The voting members consisted of two elected representatives of each participating city. Those members would be appointed to the Soltrans Board by each city. The fifth member was designated as the Solano County representative to the Metropolitan Transportation Commission (if that member did not represent most or all of either participating city). The ex-officio member was appointed by the Solano Transportation Authority.

The coordinating committee established to negotiate the formation of the JPA consisted of officials of each jurisdiction, including the mayors of both cities. In addition to the committee, a

working group of technical experts was convened to provide technical background and information to the coordinating committee. The working group consisted of staff members from each participating agency as well as consultants with experience in agency formation.

The coordination committee and working group examined such issues as consolidation of service contracts, asset transition to the new agency, personnel decisions for new agency management, analysis of impacts of the formation on the cities of Vallejo and Benicia, and the transfer of grants and other funding to the new organization.

The other Solano cities of Fairfield, Vacaville, and Dixon chose not to participate in the new agency formation. Provisions were included in the JPA agreement regarding future Board structure should any or all these jurisdictions eventually join Soltrans. In anticipation of potential membership, the Transportation Authority appointed the mayor of Fairfield as the initial ex-officio member of the Board to encourage future consideration of participation.

Calaveras Transit Agency

Calaveras Transit Agency is a Joint Powers Authority formed in March 2018 by the County of Calaveras and the City of Angels Camp. Since the early 2000's and prior to creation of the new JPA, the Calaveras County Department of Public Works managed transit service.

Transit usage in the County had been in steep decline in recent years and there was a growing discontent with County management. This was in part due to the many other responsibilities of the Public Works Department, resulting in transit receiving very little management and technical attention. Further contributing to consideration of a new structure was the City of Angels Camp, which took the position that it had no voice in transit decision making in spite of contributing the majority of its TDA funds to the operation.

In mid-2017, elected officials from both jurisdictions agreed to study the formation of a new JPA to assume responsibility for public transit. The effort was guided by a committee consisting of two county supervisors, a member of the Angels Camp City Council, the county administrator, the city manager, and the executive director of the Calaveras Council of Governments (CalaCOG). This group met regularly to fast-track decision making and crafted a JPA agreement for adoption by the two jurisdictions in February 2018.

The CalaCOG guided the formation process. It used regional funds to hire consulting assistance, directed the meeting schedule, and initiated review of legal documents with its own counsel. CalaCOG also directed the transition to the new Agency.

Service delivery in Calaveras County is contracted to an outside vendor. The vendor contract had expired while under County management. The County undertook a new vendor selection process and awarded a contract while the new agency was being formed. The new vendor agreement included provisions anticipating that it would be assigned to the new JPA following its formal creation. This occurred effective July 1, 2018.

The JPA agreement called for the new Agency Board of Directors to be identical to the CalaCOG Board of Directors. This same structure has been used elsewhere in California. The two entities (CalaCOG and Calaveras Transit Agency) are separated legally. The Calaveras Transit Agency receives grants, enters into contracts, conducts planning, and manages operations. The selected operating protocol calls for the Board to meet first as the CalaCOG and later as the Calaveras Transit Agency, conducting business specific to each.

From a technical perspective, use of the CalaCOG management umbrella has streamlined many administrative functions. For example, the Calaveras Transit Agency has no employees. Instead it contracts with the CalaCOG for staff services. In a small agency, this eliminates the need for separate personnel functions, benefits, and other support details. The Calaveras Transit Agency also did not need to obtain new office space or other infrastructure.

3 FINDINGS

Similarities in structure exist among Sonoma County's transit operators. Two are part of city government, one is part of county government. All three operators are departments of local government within the public works structure. Among other implications of this structure is that governance is provided by a general-purpose council or board with broad responsibility extending far beyond transit. This approach to governance is not uncommon in California.

In considering mechanisms to achieve greater coordination, several factors should be considered. Important among these is why a local jurisdiction might want to retain ownership of a transit operation. One reason for this is the identity that transit can provide to the jurisdiction. Services are branded for the local entity. Each operator in Sonoma County presents a unique identity to the riding public that associates it with the jurisdiction. Typically, with consolidation, the resulting new system is rebranded to convey an identity that blends the former separate operations. Jurisdictions lose their individual identities, but the riding public is offered a unified transit experience.

Perhaps more important than system identity is the issue of control. With local operation, a jurisdiction has full control of system policy and service quality. To the extent that these vary between jurisdictions, retention of control can be important. Should consolidation be pursued, mechanisms can be crafted to ensure that no participating jurisdiction loses all control over service issues. This is where the issue of governance becomes very important in the structure of a new entity. While many options are possible, they typically reflect some level of control by each participant.

Board makeup is the first step in achieving a change in governance structure. The JPA case studies described here offer different approaches. ESTA chose to grant equal representation to all participants regardless of the extent of service in their jurisdiction. Soltrans granted equal representation to each city but added a county representative to result in an additional perspective. Calaveras Transit chose to utilize a previously established structure (identical to the CalaCOG Board) that includes a mix of elected representatives and citizen appointees. Each of these was negotiated and considered local factors in part to encourage participation.

Voting requirements are often included in formation agreements as well. For example, a provision that provides for veto power by a participating jurisdiction over service deployment within its boundaries, or over certain budget decisions involving its financial contribution is not uncommon. Again, such provisions are negotiated to achieve local objectives and generally encourage jurisdictions to participate in the formation.

An important consideration in the issue of agency consolidation is that participation is voluntary. There is no overriding rule or law that requires consolidation. For example, in Solano County not all jurisdictions chose to participate in the JPA. Transit agencies choose to participate because of the perceived benefits, such as the potential improvement in rider service quality resulting from simplifying fares, transfers, system information, and service deployment.

Other technical and financial issues are significant in the consolidation discussion. Many jurisdictions face farebox recovery challenges that may be resolved through consolidation, if farebox recovery is assumed to increase as a result of consolidation. Other jurisdictions facing financial pressures may find solutions in consolidating available revenues. Such issues are typically analyzed in depth following a commitment by participating jurisdictions to proceed with the consolidation process. With a commitment to move forward, some form of advisory group is

recommended. This group would be empowered to examine in detail the potential results of forming a new agency, ranging from specific impacts on employee retirement benefit plans, to the possible loss of transit funding, to administrative overhead at participating jurisdictions.

FINANCE AND ASSETS REVIEW

January 2019

1 OVERVIEW

Funding public transportation is achieved through a complex mix of federal, state, regional, and local funding. In Sonoma County the funding coordination and integration is multiplied across four public transit providers.

This memorandum focuses on resources for the three largest public transportation providers in Sonoma County: Sonoma County Transit, Santa Rosa CityBus, and Petaluma Transit. The information describes coordination with the Golden Gate Bridge Highway and Transportation District (Golden Gate and the Sonoma-Marin Area Rail Transit (SMART)).

The Golden Gate District provides regional transit service with stops in Petaluma, Cotati, Rohnert Park, and Santa Rosa and receives 25% funding for this service from Sonoma County's Transportation Development Act (TDA). Funds are dedicated to support a regional bus service that operates between Sonoma, Marin and San Francisco counties. In Sonoma County, Golden Gate Transit operates along the Highway 101 corridor, serving Santa Rosa, Rohnert Park, Cotati and Petaluma. SMART also provides regional transit service with stops in Petaluma, Cotati, Rohnert Park, and Santa Rosa and will receive funding from Sonoma County's STA population-based apportionment beginning in FY2020. Fund transfers to Golden Gate Transit and SMART are discussed in the regional funding section in this paper.

The transit providers access funding through two regional coordinating agencies:

- The Metropolitan Transportation Commission (MTC) serves as the Council of Governments for the Bay Area, including Sonoma County, and is the Metropolitan Planning Organization (MPO) responsible for regional planning, programming and distribution of federal, state, and regional public transportation funding.
- The Sonoma County Transportation Authority (SCTA) is the Congestion Management Agency for Sonoma County, and provides public transit planning and funding coordination in Sonoma County in coordination with MTC and programming.

MTC and SCTA are responsible for a broad portfolio of public transit coordination projects and programs. They are also responsible for allocating and coordinating requests for state and federal funding, with MTC leading funding allocation, prioritization, and grant oversight. SCTA also programs and allocates other regional sources and local sales tax measure, Measure M.

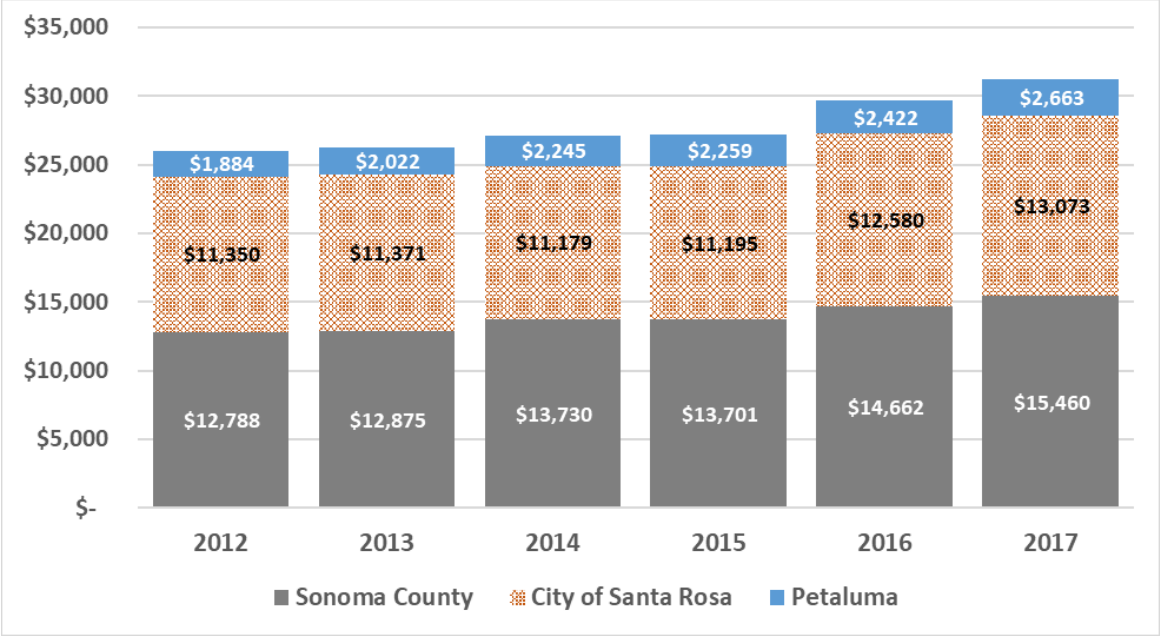
The transit providers report service and financial data to the Federal Transit Administration and to local and state partners. This ensures their continued compliance and enables them to continue receiving funding. The data in this chapter stems from publicly available data sources, in some cases combined with financial audits and funding allocation summaries or applications.

2 OPERATING REVENUES AND EXPENSES

EXPENDITURE BY SERVICE PROVIDER

The three local transit providers covered by this report had annual operating expenses over $26 million in 2012, increasing to over $31 million in 2017. This represents a 19.9% increase over the five year period; a 3.7% average annual increase. Figure 1 shows the total operating expenses from 2012 to 2017 for each of the three local transit providers.

Figure 1 Sonoma County Total Operating Expenditures by Year and Provider (in 1,000s)



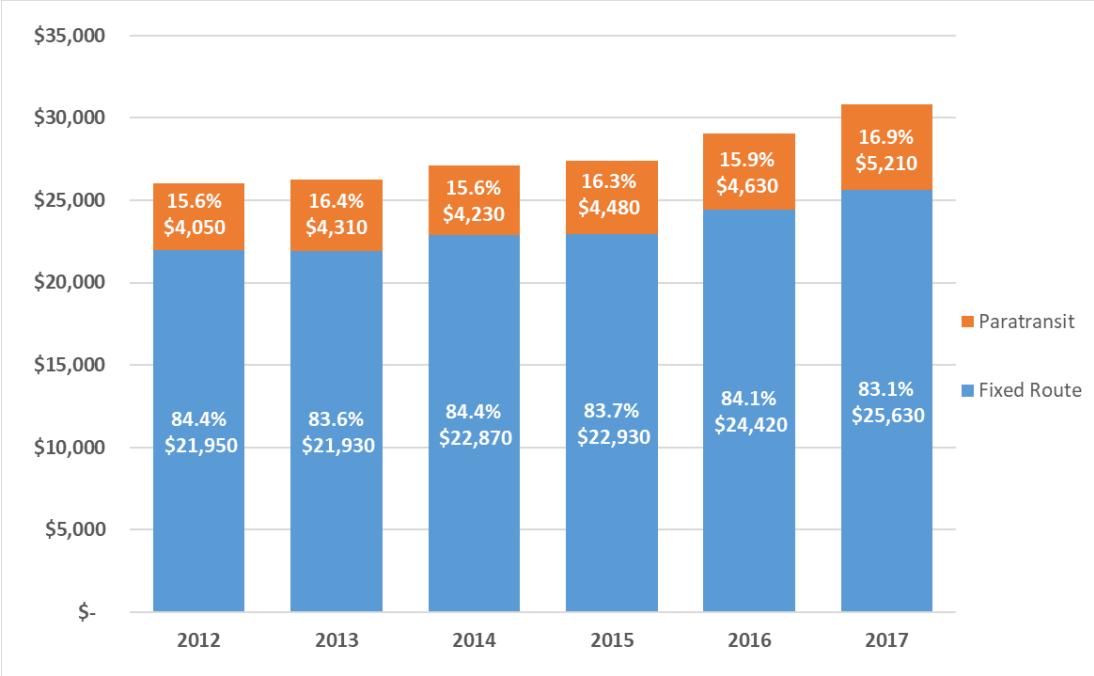
Source: National Transit Database. All figures in 1,000s and rounded for clarity.

EXPENDITURE BY MODE

From 2012 to 2017, the agencies combined spent, on average, 16.1% of total expenditures on ADA complementary paratransit services. The share of total expenditures has remained relatively consistent, ranging from 15.6% in 2012 to 16.9% in 2017. Paratransit costs increased 28.6% over the same period, with 12.5% increase from 2016 to 2017, up to $5.2 million.

Each transit provider in Sonoma County contracts with private firms separately for demand-response paratransit operations. This affords each jurisdiction some measure of control over the service levels, performance measures, and other factors of the service. This also creates a duplicative administrative layer in the county as each agency oversees separate contractors, coordinates with other transit providers, and analyzes service needs for similar markets.

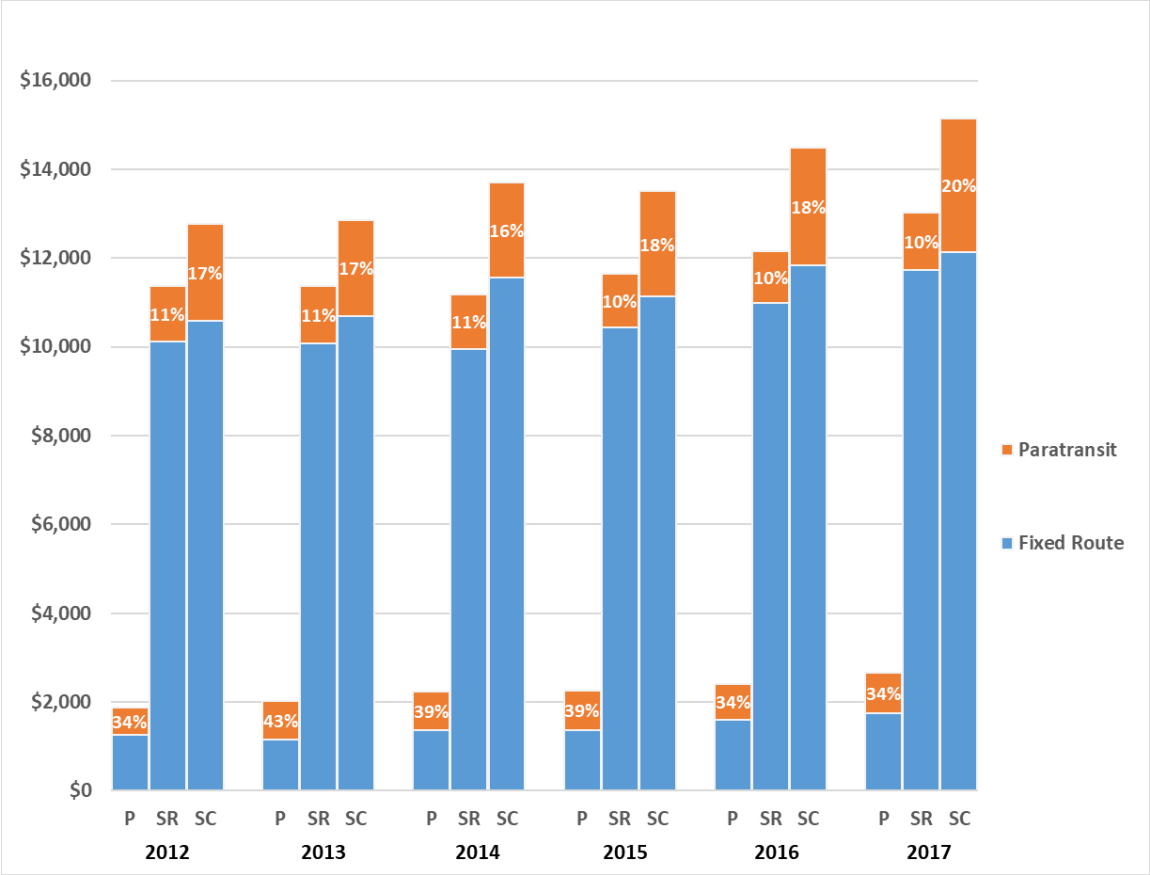
Figure 2 Fixed Route and Paratransit Expenditures by Year and Mode (in 1,000s)



Source: National Transit Database. All figures in 1,000s and rounded for clarity.

The differences in transit services–and budget sizes–affect the paratransit share of total expenditures. Petaluma's paratransit costs, though lowest overall at about $838,000 in 2017, accounted for 37% of total transit expenditures, on average, between 2012 and 2017. Sonoma County Transit paratransit services accounted for 16.1% of total expenditures, on average, increasing from 16% in 2014 to 20% in 2017. Santa Rosa has the lowest shares at 10.5%, on average over the period, generally decreasing from 11.4% in 2013 to 9.8% in 2017. The data in Figure 2 reflects direct agency expenditures of funds received from all sources.

Figure 3 Fixed Route and Paratransit Expenditures by Year and Provider

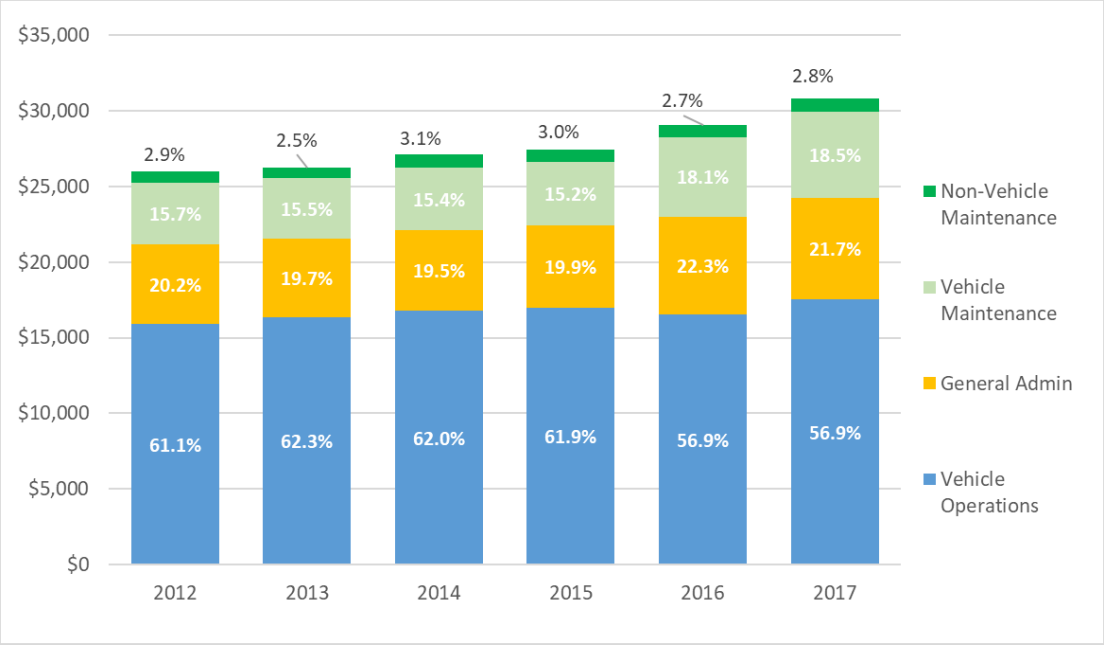


Source: National Transit Database. All figures in 1,000s and rounded for clarity. P = Petaluma; SR = Santa Rosa; SC= Sonoma County Transit

EXPENDITURE BY TYPE

The Sonoma County transit providers spend over half of total revenues on vehicle operations. The total operating costs increased by 10.5% between 2012 and 2017, to over $17.5 million in 2017, while the share of total expenditures has decreased by about 5% since 2012. Vehicle maintenance and general administration (i.e., management) costs account for about one-fifth of total expenditures each, and total shares increased slightly from 2012 to 2017. Non-vehicle maintenance (i.e., facilities) has remained steady and accounts for less than 3% of total expenditures.

Figure 4 Summary of Transit Operations Expenditure by Type

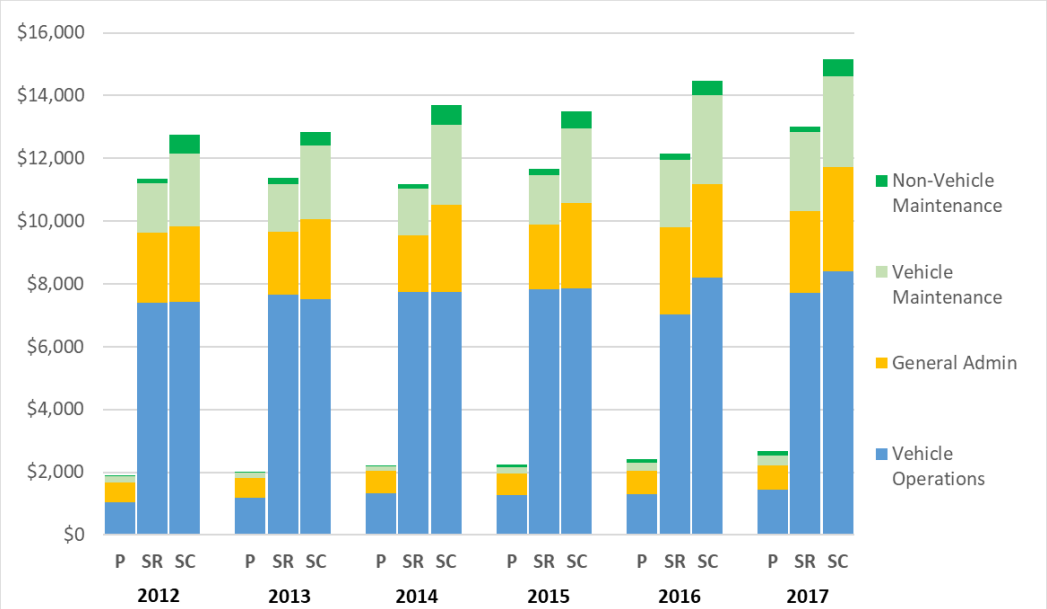


Source: National Transit Database. Dollar values in 1,000s and rounded for clarity. Includes Petaluma Transit; Santa Rosa CityBus; Sonoma County Transit

The following two figures, Figure 5 and Figure 6, show annual expenditures by type for each Sonoma County transit provider. The graphic helps illustrate the overall consistency in expenditure types over the past six years, and the relative share of expenditures by transit provider, with the City of Petaluma having very low total costs relative to Santa Rosa and Sonoma County Transit. Total combined costs have increased about 18%; Petaluma increased total expenditures by over 40% between 2012 and 2017 ($770,000); Santa Rosa and Sonoma County Transit increased budgets by about 15% ($1.6 million) and 19% ($2.4 million), respectively.

The data table shows the expenditure type shares by transit provider. General administration expenses represent 30% (2017) of Petaluma Transit's total expenditures; about 10% more than the other two operators. This may reflect the fixed labor costs associated with managing a transit program, which requires a minimum staff to oversee activities such as funding, contract and grant management, and service planning, regardless of operation size. Vehicle maintenance costs increased for each operator, most significantly for Santa Rosa, which increased by 5%, or about $900,000 over six years.

Figure 5 Transit Expenditure by Type and Service Provider (Graph)



Source: National Transit Database. All figures in 1,000s and rounded for clarity. P = Petaluma Transit; SR = Santa Rosa CityBus; SC= Sonoma County Transit

Figure 6 Transit Expenditure Share by Type and Service Provider (Table)

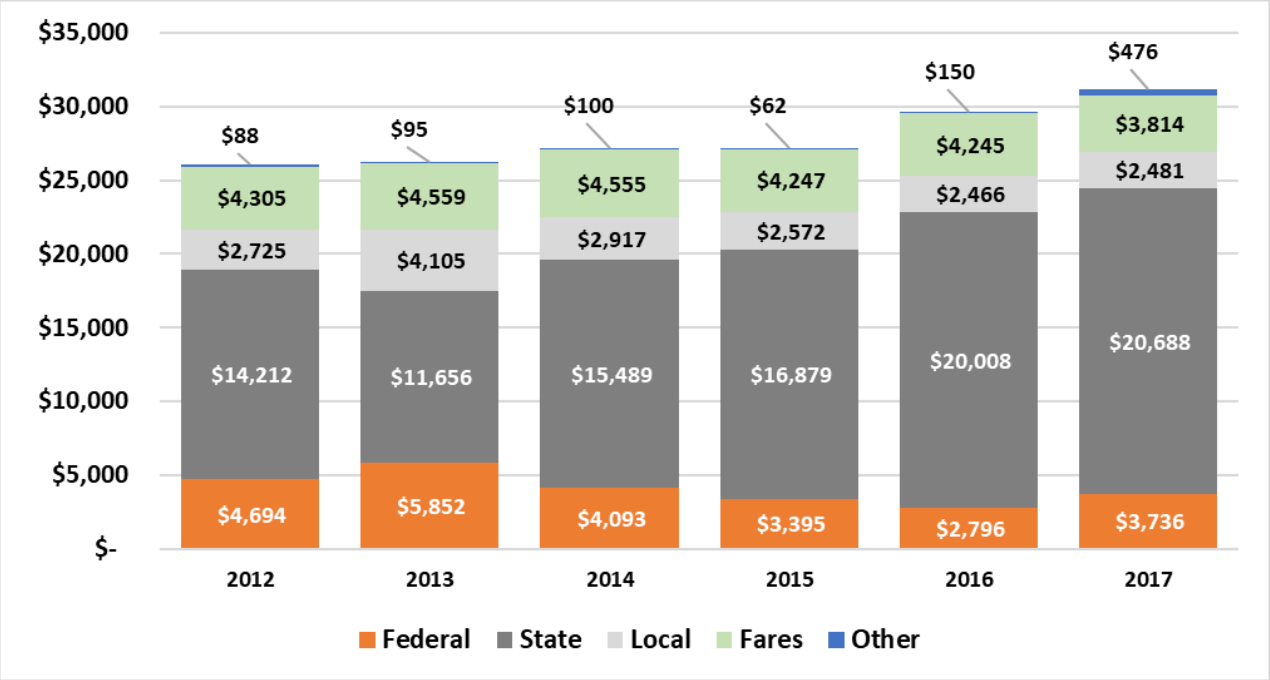
Year	Vehicle Operations	Vehicle Maintenance	Non-Vehicle Maintenance	General Administration
Petaluma				
2012	56%	10%	1%	33%
2013	59%	8%	2%	31%
2014	60%	7%	2%	31%
2015	57%	9%	3%	31%
2016	54%	12%	4%	31%
2017	54%	11%	5%	30%
Santa Rosa				
2012	65%	14%	1%	20%
2013	67%	14%	2%	18%
2014	69%	13%	1%	16%
2015	67%	14%	2%	18%
2016	58%	18%	2%	23%
2017	59%	19%	1%	20%
Sonoma County				
2012	58%	18%	5%	19%
2013	58%	18%	3%	20%
2014	57%	19%	5%	20%
2015	58%	18%	4%	20%
2016	57%	20%	3%	21%
2017	55%	19%	4%	22%

Source: National Transit Database.

EXPENDITURE BY FUNDING SOURCE

The three transit providers rely on a mix of federal, state, and local funds. They supplement these grants and apportionments with farebox revenue and other directly generated funds (e.g., advertising or pass programs). Countywide, the greatest share of operating expenses is funded by state funds, followed by federal grants, farebox and other revenues, then local funds. Figure 7 summarizes the operating expenditures by funding source between 2012 and 2017. On average, state funds have covered about 60% of annual operating expenditures countywide over this period, increasing the share to over 65% in 2017. Federal funds and farebox revenues have each covered 15% of total operating expenditures on average over this period, decreasing to 12% in 2017.

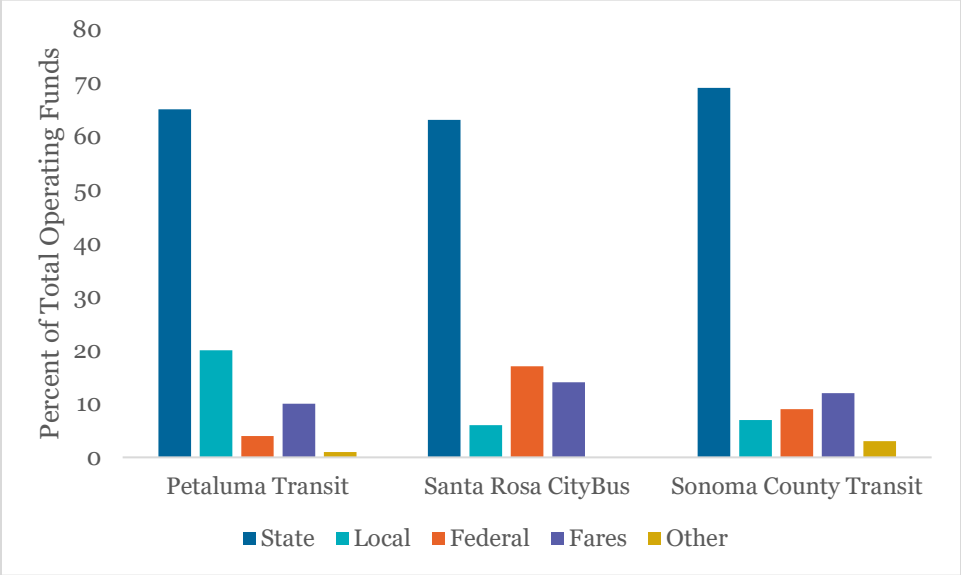
Figure 7 Sonoma County Operating Expenditures by Source – All operators combined



Source: National Transit Database. All figures in 1,000s and rounded for clarity. Sonoma County Transit reported TDA as "Local" funds in the NTD; an estimated TDA amount was re-categorized as "state" funds for constancy with Petaluma Transit and Santa Rosa CityBus.

The three providers had a generally similar distribution of operating sources in 2017. The shares-by-source vary from year to year, but a one-year view provides one look at how the providers differ in 2017. Sonoma County Transit had the greatest share of state funds, reaching over two-thirds of total expenditures. Petaluma Transit has shifted more expenditures to local sources (20%), while Santa Rosa has accessed federal funds for nearly one-fifth (17%) of total expenditures. Farebox revenue for the three providers ranged from 10% to 14%; however, this federally-reported farebox revenue value may not equal the TDA-required farebox recovery ratio calculation, given the state program-specific definitions related to TDA-qualifying local expenses (i.e., providers may include other local funds to meet farebox recovery targets).

Figure 8 Sonoma County Providers' Operating Expenditures by Source, 2017



Source: National Transit Database, 2017

The individual programs supporting public transportation in Sonoma County include a broad list. Figure 9 summarizes public transportation funding programs, by government level, based on what each local transit providers recorded in Short Range Transit Plans and annual budgets. The first category from the Federal Transit Administration (FTA) is labeled by section (§) numbers.

The State Transit Assistance (STA) and Local Transportation Fund (LTF) were both created as part of the Transportation Development Act (TDA). MTC does not differentiate LTF from TDA.

- TDA revenues are derived from sales tax receipts (0.25% of the state sales tax).
- STA funds come from a state vehicle fuel sales tax. They are allocated from three subcategories, including (a) population-based funds distributed through a County Block Grant for local transit, and (b) revenue-based funds through TDA Article 4 to Sonoma County Transit, Santa Rosa CityBus, Petaluma Transit, Golden Gate Transit, and Sonoma-Marin Area Rail Transit.
- Regional Measure M funds come from a 0.25% County sales tax. Measure M is administered by SCTA to local service providers.

Figure 9 Revenue Sources by Type and Provider

Funding Type	Funding Sources	Allocation Type	PT	SR	SCT
Federal	▪ FTA §5303 Metropolitan Planning	▪ Formula	✓		✓
	▪ FTA §5307 Urbanized Area Formula**	▪ Formula, discretionary	✓	✓	✓
	▪ FTA §5310 Enhanced Mobility of Seniors & Individuals with Disabilities	▪ Discretionary	✓		✓
	▪ FTA §5311 Formula Grants for Rural Areas	▪ Formula			✓
	▪ FTA §5339 Bus & Bus Facilities**	▪ Formula, discretionary			✓
State	▪ State Transit Assistance (STA)*	▪ Formula	✓	✓	✓
	▪ Local Transportation Fund (LTF, aka "TDA")[26]	▪ Collected revenues	✓	✓	✓
	▪ California Cap and Trade	▪ Formula	✓	✓	
Regional	▪ BAAQMD Transportation for Clean Air	▪ Formula	✓	✓	✓
	▪ MTC Transit Performance Initiative	▪ Discretionary		✓	
	▪ Sonoma County Measure M	▪ Discretionary	✓	✓	✓
Local	▪ City General Fund	▪ NA (all)		✓	✓
	▪ Impact Fees		✓	✓	✓
	▪ Fare revenue		✓	✓	✓
	▪ Other: Investment interest, advertising		✓		✓

Source(s): Short Range Transportation Plans and Audits for Petaluma, Santa Rosa, and Sonoma County Transit.

*Note: The STA and LTF funds created by the Transit Development Act (TDA). MTC reallocates some STA and LTF funds from Sonoma County transit providers to Golden Gate Transportation District for transit services provided in Sonoma County communities.
** Federal formula

Petaluma Transit is unique in that it is the only of the three agencies not currently receiving any direct funding for operations or capital from their local jurisdictional general fund.

REGIONAL FUNDING APPORTIONMENTS AND ADJUSTMENTS

As noted in Figure 9, Sonoma County Transit does not receive 5310 funds or any County (or City) general fund assistance. Sonoma County Transit does receive Cap and Trade funds.

The transit providers serving Sonoma County rely on integrated and coordinated funding. This section describes revenue apportionments and transfers between Sonoma County and regional transit providers.

Metropolitan Transportation Commission Coordinated Claim

SCTA submits a coordinated transit funding claim to MTC each spring for the upcoming fiscal year starting July 1. The Sonoma County coordinated claim documents inter-jurisdictional funding transfers for TDA, STA and Measure M funds. These funds are the primary source of operating funds for Sonoma County's transit providers. MTC apportions and manages Bay Area TDA, STA revenue-based funds. SCTA apportions STA population-based funds and Regional Measure M funds. As noted above, Regional Measure M funds come from a 0.25% county sales tax. Bus transit receives 10%, SMART receives 5%, and remaining funds go to other programs.

[26] In some documents such as the MTC Coordinated Claim the LTF is referenced as the "TDA Article 4", or "TDA".

Three major funding issues affecting Sonoma County transit providers include:

1. Golden Gate Transit (GGT) regional operating. Sonoma County entities collectively contribute 25% of the County's total TDA funds annually off the top. The distribution share was determined in 1997 though MTC Resolution 2858.
2. Sonoma County Transit intercity and local operating assistance. Except for the city of Santa Rosa, local cities contribute TDA funds to Sonoma County Transit for its intercity regional service. Sonoma County Transit is also the local transit provider for the cities of Sebastopol, Windsor, Healdsburg, Sonoma, Rohnert Park, Cotati and the unincorporated communities of Guerneville and Monte Rio. The cities also contribute 20% of their fixed route contributions to Sonoma County Transit for ADA Paratransit operating funds. Sonoma County Transit contracts with a third-party contractor for paratransit operations.
3. SMART became an eligible STA transit provider in the MTC coordinated funding process in 2017. SMART will receive funds through both the population- and revenue-based allocation processes and formulas.

Figure 10 summarizes the fiscal year 2019 coordinated claim allocations, and the share each transit provider claims from each transit fund type. Notably, the table shows that Golden Gate Transit continues to receive 25% of TDA revenues, or about $5.9 million annually. SMART received about 10.2% of the STA funds, or about $800,000 in FY2019, but will also receive a portion of the STA population-based funds in FY2020. Combined, Golden Gate Transit and SMART received 25.3% of total state and regional funding in FY2019 available to operators in Sonoma County.

Figure 10 SCTA Coordinated Claim Summary, 2019

Transit Provider	TDA		STA		Measure M		Total	
Petaluma Transit	$1,757,377	7.5%	$632,317	8.0%	$300,410	12.1%	$2,690,104	7.9%
Santa Rosa CityBus	$6,268,954	26.7%	$1,862,804	23.4%	$871,535	35.0%	$9,003,292	26.5%
Sonoma Co. Transit	$9,601,543	40.9%	$2,759,673	34.7%	$1,318,056	52.9%	$13,679,270	40.3%
Golden Gate Transit	$5,875,958	25.0%	$1,883,922	23.7%	-	-	$7,759,880	22.9%
SMART	-	0.0%	$811,203	10.2%	-	-	$811,203	2.4%
Total	**$23,503,832**	**100.0%**	**$7,949,919**	**100.0%**	**$2,490,001**	**100.%**	**$33,943,749**	**100.%**

The TDA funds are first calculated based on jurisdictional population and are allocated to transit providers based on the populations served. Data show a direct correlation at this stage between population and initial funding. Figure 11 summarizes the population and funding amounts by area, with the resulting share of total funding. The three transit provider jurisdictions comprise about three-quarters of total TDA funding.

Figure 11 SCTA Coordinated Claim TDA Apportionments, 2019

Area	Population	%	TDA Amount	%
Cloverdale	8,931	1.8%	$415,570	1.8%
Cotati	7,272	1.4%	$338,375	1.4%
Healdsburg	11,800	2.3%	$549,068	2.3%
Petaluma	60,941	12.1%	$2,835,657	12.1%
Rohnert Park	42,067	8.3%	$1,957,427	8.3%
Santa Rosa	176,799	35.0%	$8,226,666	35.0%
Sebastopol	7,579	1.5%	$352,660	1.5%
Sonoma	10,989	2.2%	$511,331	2.2%
Windsor	27,371	5.4%	$1,273,605	5.4%
Unincorporated Sonoma County	151,371	30.0%	$7,043,471	30.0%
Total	**505,120**	**100.0%**	**$23,503,830**	**100.0%**

Source: MTC Coordinated Claim FY2019

Figure 12 summarizes the FY2019 TDA revenues and transfers within the TDA coordinated claim, contracts, and reserve funds by area or agency, and illustrates how the TDA funds are distributed to the three local transit providers and Golden Gate Transit. The direct transfers go primarily to Golden Gate Transit ($5,875,959) and to Sonoma County Transit ($3,222,191). The table also summarizes contracts set up between local jurisdictions to provide funds to Santa Rosa ($98,954) and Sonoma County Transit ($1,364,502).

Petaluma, Rohnert Park, and Cotati pay Sonoma County Transit for Route 44/48 between Petaluma and Santa Rosa. Petaluma's share is specifically referenced, amounting to 14.6% of the route's projected FY2019 operating costs ($217,974).[27] Cotati and Rohnert Park shares of that route are unknown, and are part of a larger payment covering all routes in their communities.

[27] Sonoma County TDA Coordinated Claim FY 2019.

Figure 12 SCTA Coordinated Claim TDA Distribution, 2019

Area	TDA Amount	GGT Transfer	SCT Transfer	Contracts[28]	Subtotal	Reserve	Total
Cloverdale	$415,570	-$41,893	-$253,296	-$120,381	$0	$0	$0
Cotati	$338,375	-$97,457	-$199,769	-$41,150	$0	$0	$0
Healdsburg	$549,068	-$55,351	-$493,716	$0	$0	$0	$0
Petaluma	$2,835,657	-$816,711	-$261,569[29]	$0	$1,757,377	$752,536	$2,509,913
Rohnert Park	$1,957,427	-$563,768	-$688,886	-$704,774	$0	$0	$0
Santa Rosa	$8,226,666	-$2,056,667	$0	$98,954	$6,268,953	$1,979,568	$8,248,521
Sebastopol	$352,660	-$35,551	-$184,279	-$132,831	$0	$0	$0
Sonoma	$511,331	-$51,547	-$264,150	-$195,633	$0	$0	$0
Windsor	$1,273,605	-$128,391	-$876,526	-$268,688	$0	$0	$0
Sonoma County	$7,043,471	-$2,028,623	$3,222,191	$1,364,502	$9,601,541	$3,505,215	$13,106,756
Golden Gate Transit	$0	$5,875,959	$0	$0	$5,875,959	$90,490	$5,875,959
Total	**$23,503,830**	**$0**	**$0**	**$0**	**$23,503,830**	**$6,327,809**	**$29,831,639**

Source: MTC Coordinated Claim FY2019

[28] Includes funds for fixed route service, beyond the TDA re-allocation.

[29] $217,974 for Sonoma County Transit Route 44/48 between Petaluma and Santa Rosa, and $43,595 for countywide paratransit service.

The countywide TDA contribution for regional services provided to Golden Gate Transit is fixed at 25% of the countywide TDA revenues without consideration of service levels. Shares of each jurisdiction's allocated TDA funds transferred to Golden Gate Transit vary depending upon sales tax collection rates. The figure below shows the distribution share for each jurisdiction. Cotati, Petaluma, Rohnert Park, and Sonoma County each transfer 28.8% of their total TDA funding, and Santa Rosa contributes 25% of its TDA share. Smaller areas transfer 10.1% or 10.08% of their TDA funds to GGT.

Golden Gate Transit's bus operating budget was $71.7 million in 2017[30]. All state revenues (TDA and STA combined) totaled about $18.5 million, or 26% of the total budget, with Sonoma County's TDA share accounting for about 8%. GGT's bus and paratransit division operated about 307,000 revenue hours in 2017.

Figure 13 Sonoma County TDA Transfers to Golden Gate Transit by Jurisdiction

Area	Distribution	Allocation FY 2019
Cloverdale	10.08%	$41,893
Cotati	28.8%	$97,457
Healdsburg	10.1%	$55,351
Petaluma	28.8%	$816,711
Rohnert Park	28.8%	$563,768
Santa Rosa	25.0%	$2,056,667
Sebastopol	10.1%	$35,551
Sonoma	10.1%	$51,547
Windsor	10.1%	$128,391
Sonoma County	28.8%	$2,028,623
Countywide Total	**25.0%**	**$5,875,958**

Source: SCTA Coordinated Claim FY2019.

[30] National Transit Database 2017, motorbus and paratransit mode total.

3 CAPITAL REVENUES AND EXPENDITURES

Capital projects include all major one-time expenditures that support transit operations, such as passenger facilities, vehicles, maintenance and fueling infrastructure, offices, and other buildings. In FY2018, most capital funds for Petaluma Transit, Santa Rosa CityBus and Sonoma County Transit came from federal sources.

Capital expenditures are largely tied to vehicle replacements and expansions. Figure 14 below summarizes the vehicle fleet categories as of 2016, which provide some indications of how soon and often the vehicles need to be purchased.

Figure 14 Fleet Summary by Agency, 2016

Agency	Mode	Active Fleet	Avg. Fleet Age	Useful Life Benchmark
Santa Rosa CityBus	Paratransit	13	4.8	7
	Fixed Route	30	8.3	12
	Total	43	7.2	*N/A*
Sonoma County Transit	Paratransit	31	6.0	7
	Fixed Route	57	7.0	12
	Total	88	6.7	*NA*
Petaluma Transit	Paratransit	9	3.4	8
	Fixed Route	14	9.2	15
	Total	23	6.9	*N/A*

Source: National Transit Database 2017; Sonoma County Transportation Authority.

Capital expenditures are also driven by the need to upgrade and replace facilities such as buildings, transit centers, and bus stops. This section and Figure 15 summarize the existing facilities at each of the three local transit providers.

- Petaluma Transit opened the Eastside Transit Center (ETC) in 2010. The facility includes two shelters, four bus bays, benches, and a real-time arrival board (added in 2015[31]).
- Santa Rosa has a new transit facility on the transit mall. It is used by Santa Rosa CityBus, Sonoma County Transit, Golden Gate Transit, Mendocino Transit, and Greyhound.
- Sonoma County Transit's bus yard and compressed natural gas fueling facilities are located at their Southwest Santa Rosa base. The on-site compressed natural gas (CNG) fueling facility was originally built in 1997 and expanded in 2013.[32] The fueling facility has four natural gas compressors.
- The California Air Resources Board issued its Innovative Clean Transit (ICT) regulation 2018 requiring that all new transit buses purchases after 2029 be zero-emission vehicles,

[31] Petaluma Transit SRTP. P. 12.

[32] Sonoma County Transit Draft SRTP. P. 14

which could be electric or hydrogen fuel cell vehicles. Large transit agencies are expected to have one-quarter of new vehicle orders zero-emission by 2023, increasing to 50% in 2026. Small transit agencies are expected to have one-quarter of new vehicle orders zero-emission by 2026, with no 50% benchmark. Sonoma County Transit and Santa Rosa are in the process of adding electric vehicles, and all agencies will need to develop---or work with transit service contractors to develop---electric charging infrastructure. The agencies will also need to manage the additional cost of procuring electric vehicles. All three agencies are currently working in conjunction with Sonoma Clean Power. There may be maintenance savings over time, given the nature of electric vehicles, but the ramp up to fleet replacement and charging infrastructure will result in additional costs.

Figure 15 Transit Provider Facilities Inventory

Facility Type	Sonoma County Transit	Santa Rosa CityBus	Petaluma Transit
Fueling Systems	CNG Buses Gas Paratransit 1 electric in service and 1 electric in procurement	Diesel Buses Diesel-Electric Hybrid Buses Gas Paratransit 2 electric buses in procurement 2019	Diesel Buses Diesel-Electric Hybrid Buses Gas Paratransit
Maintenance	5 indoor maintenance bays		2 indoor maintenance bays
Bus Yards	45 heavy-duty buses 32 paratransit vehicles 8 support vehicles	The 30 fixed route vehicles share space with other city vehicles	14 fixed route vehicles
Bus Yard expansion potential	Sonoma County Transit-owned land available for up to 75 vehicles		
Administration	At operations facility	At operations facility	At operations facility

Source: SCTA

CAPITAL EXPENDITURE PROJECTION BY REVENUE TYPE

Revenue sources used by transit agencies in Sonoma County to fund capital expenses are shown in Figure 16. Much of these funds came from Federal formula grants (FTA §5307 and §5339).

Figure 16 Capital Revenue Sources

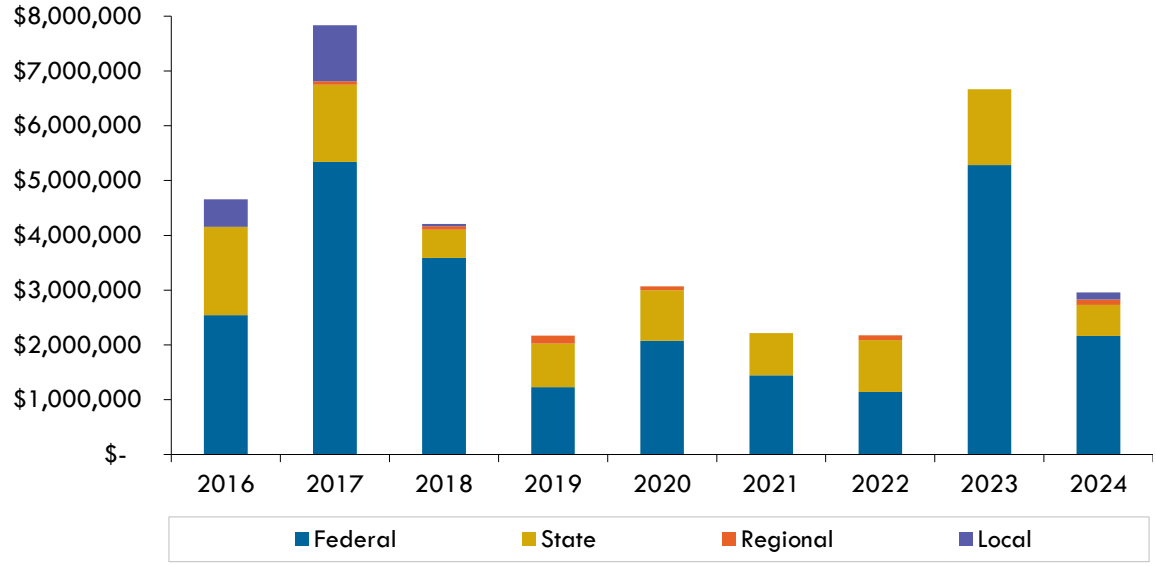
Funding Source	Petaluma	Santa Rosa	Sonoma County
FTA §5307	Y	Y	Y
FTA §5309			Y
FTA §5339	Y	Y	Y
FTA §5310	Y	Y	
FTA §5311			Y
State LCTOP	Y		Y
State STA	Y	Y	Y
SB1 State of Good Repair			
TDA Capital	Y	Y	Y
City Impact Fees	Y		
MTC TPI Incentive	Y		
TFCA County Program Manager Fund	Y		Y

Source: Short Range Transit Plans for Petaluma Transit (2016), Sonoma County Transit (2017), City of Santa Rosa (2016).

The following charts (Figure 17 through Figure 20) show each partner agency's projected capital revenues through FY2024. The bulk of most TIES partner agencies' planned capital revenues are from federal sources, although California TDA and SB 1 funds are significant contributors. These values are derived from the Short Range Transit Plans, which incorporate vehicle and equipment needs through the year 2024, combined.

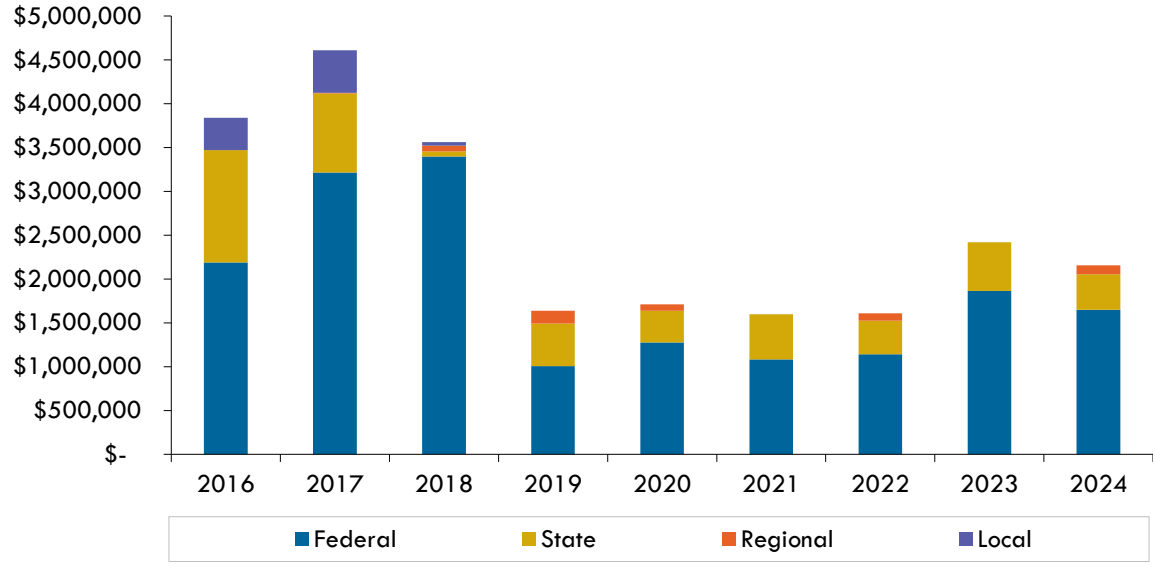
Capital revenues for all three partner agencies peak in FY2017 and are expected to peak again in FY2023 (Figure 17). The peak in 2023 is largely representative of agency vehicle purchasing plans.

Figure 17 All Agencies' Capital Revenues Estimate (2016-2024)



Source: Short Range Transit Plans for Petaluma Transit (2016), Sonoma County Transit (2017), City of Santa Rosa (2016).

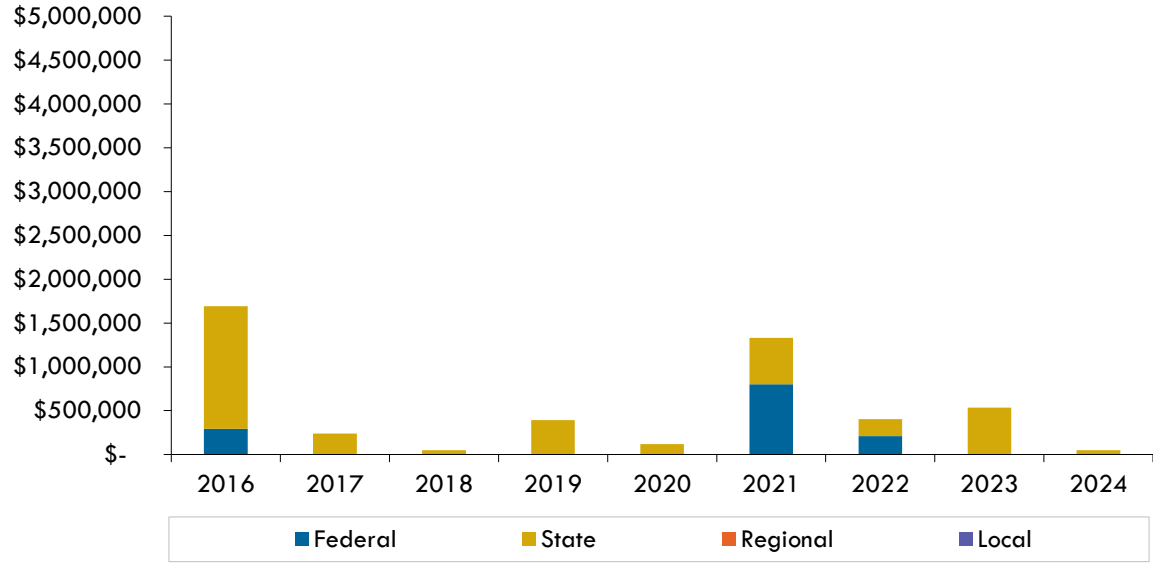
Figure 18 Sonoma County Transit Capital Revenues Forecast (FY2016-2024)



Source: Short Range Transit Plan Sonoma County Transit (2017).

Santa Rosa CityBus is atypical amongst partner agencies in that state capital funding will make up 40% of its total capital funding for FY 2021 (Figure 19).

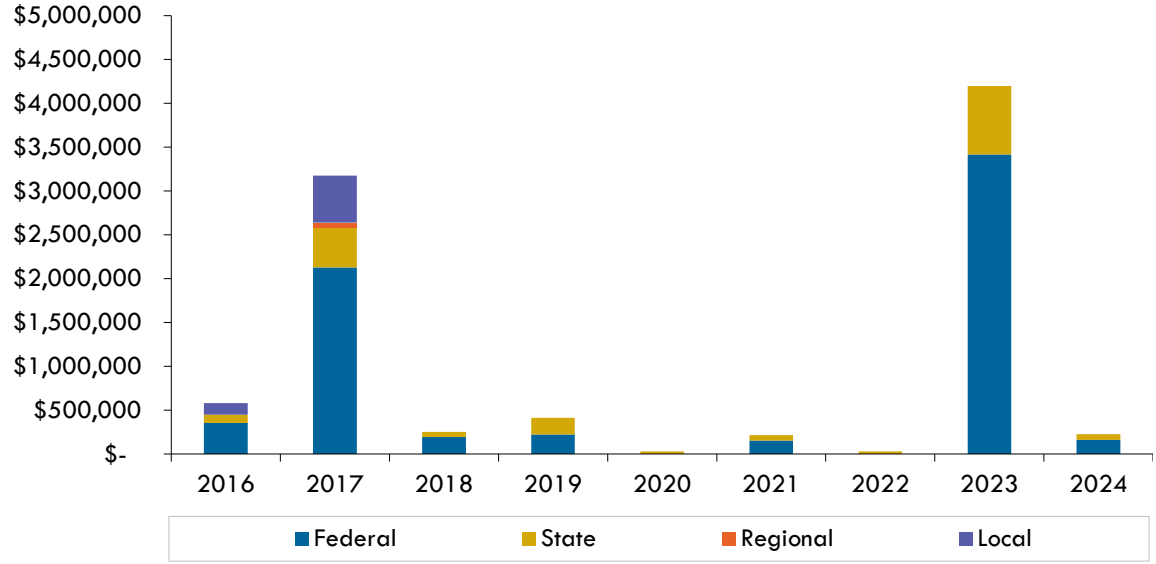
Figure 19 Santa Rosa CityBus Capital Revenues Forecast (FY2016-2024)



Source: Short Range Transit Plans for City of Santa Rosa (2016).

The local funding shown in Figure 20 represents Petaluma's local traffic development impact fees[33], which are not projected out past 2018.

Figure 20 Petaluma Transit Capital Revenues Forecast (FY2016-2024)



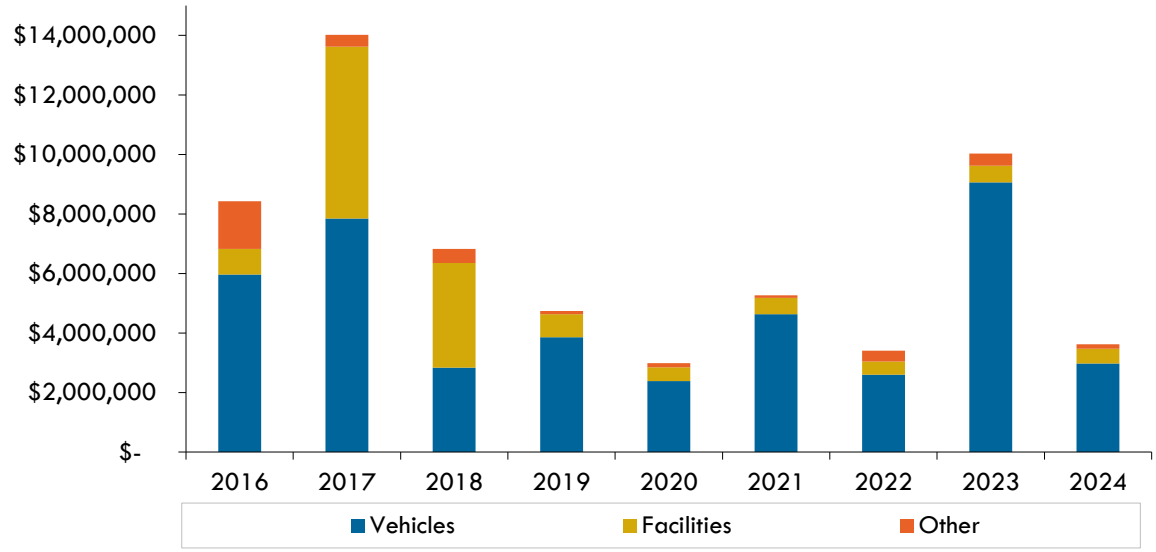
Source: Short Range Transit Plans for Petaluma Transit (2016).

[33] City of Petaluma. Development Impact & Capacity Fees. 2018. Pp. 17-20. <https://cityofpetaluma.net/cdd/pdf/DevelopmentImpactFeesBooklet.pdf>

CAPITAL EXPENDITURE PROJECTIONS BY EXPENDITURE TYPE

The major spike in combined TIES partner agency capital spending will be in FY2023, when the three partner agencies plan to spend a combined $9,064,010 on vehicles (Figure 21). This is largely driven by fixed-route vehicle purchases.

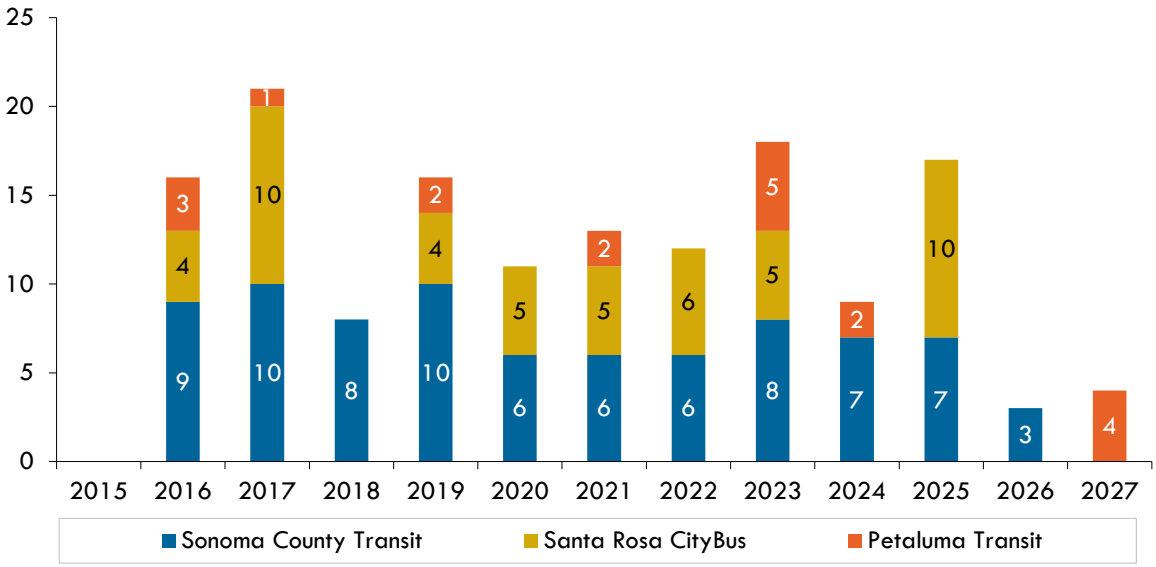
Figure 21 All Agencies' Capital Spending Forecast (FY2016-2024)



Source: Short Range Transit Plans for Petaluma Transit (2016), Sonoma County Transit (2017), City of Santa Rosa (2016).

Agency vehicle purchasing plans are illustrated in Figure 22. While Sonoma County Transit and Santa Rosa CityBus plan to spread out vehicle purchases annually, Petaluma Transit will purchase five vehicles in FY2023.

Figure 22 TIES Partner Agency Vehicle (all types) Purchasing Forecast (FY2016-2024)



Source: Short Range Transit Plans for Petaluma Transit (2016), Sonoma County Transit (2017), City of Santa Rosa (2016).

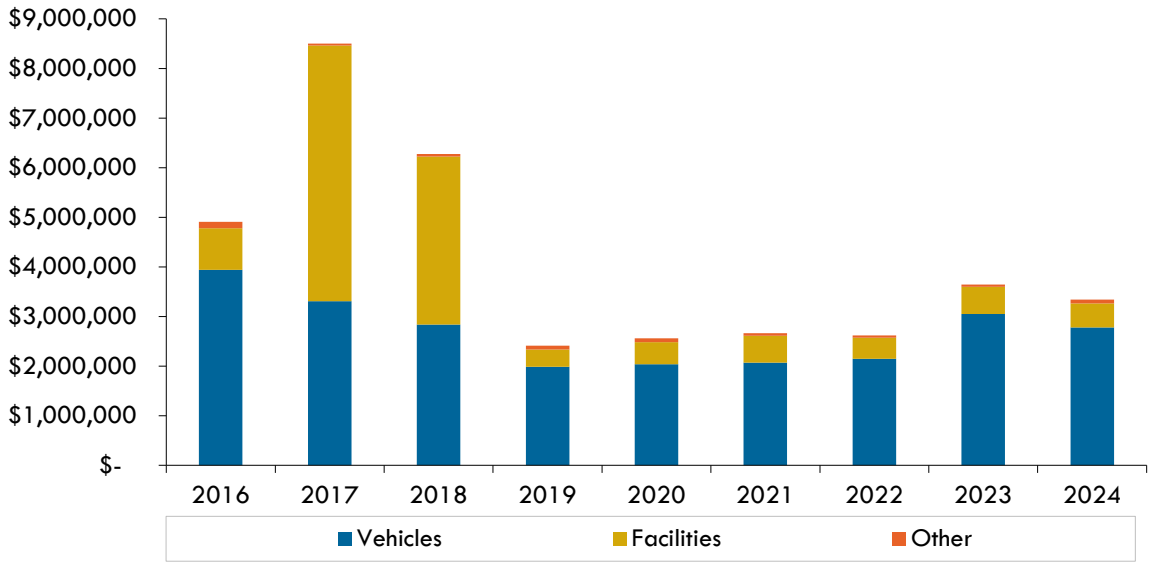
Although agency planned vehicle purchases have not all had makes and models assigned to them, the majority of TIES partner agency vehicles are Orion, New Flyer, ElDorado, and Gillig vehicles (Figure 23). Orion vehicles are all compressed natural gas (CNG) and operated by Sonoma County Transit, and their manufacturer (Orion Industries) has since ceased operations. Opportunities for TIES partner agencies to jointly purchase non-CNG fleet replacements may exist in coming years.

Figure 23 Current Vehicle Inventories by Agency by Manufacturer

Manufacturer	Sonoma County Transit	Santa Rosa CityBus	Petaluma Transit	Total
Ford	0	0	9	1
Starcraft	1	0	0	1
ARBOC	3	0	0	3
Glaval	3	0	0	3
Gillig	0	9	11	17
ElDorado	18	0	0	18
New Flyer	0	23	3	26
Orion CNG	27	0	0	27
Total	**52**	**32**	**23**	**96**

Sonoma County Transit faces major capital expenditures in the next five years (Figure 24). After FY2020, when Sonoma County Transit completes rehabilitation of its operations and maintenance facility, the majority of capital spending is projected to be on vehicle replacement.

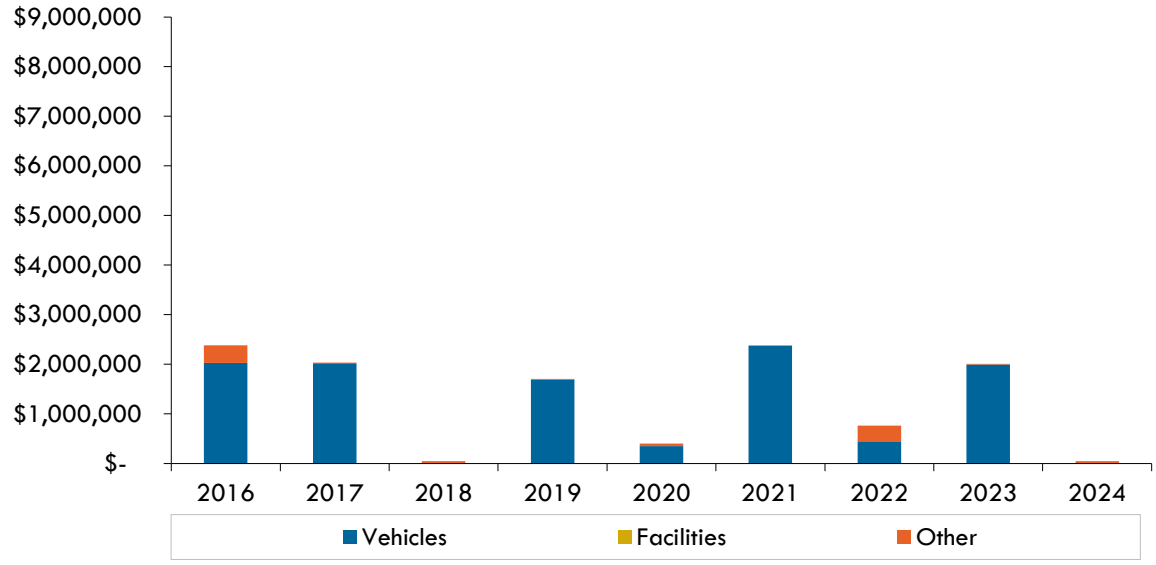
Figure 24 Sonoma County Transit Capital Spending Forecast (FY 2016-2024)



Source: Short Range Transit Plan Sonoma County Transit (2017).

Santa Rosa forecasts major bus purchases every two years (Figure 25). This is their primary planned capital expense, although they are also budgeting for miscellaneous equipment, bus parts, and bus stop improvements.

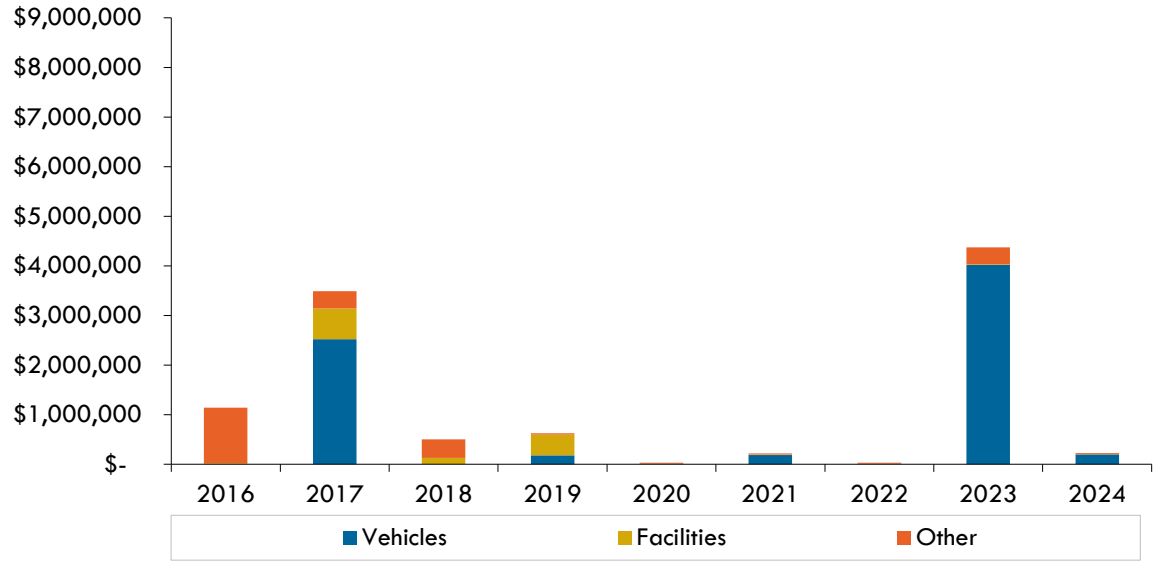
Figure 25 Santa Rosa CityBus Capital Spending Forecast (FY 2016-2024)



Source: Short Range Transit Plan City of Santa Rosa (2016).

Petaluma Transit made a major vehicle purchase in FY2017 and expects to make another one in 2023 (Figure 26). The agency plans to conduct small rehabilitation and upgrade activities on facilities through FY2019 and will continue to improve bus stop amenities and access each year. Petaluma Transit plans to purchase additional AVL equipment in FY2023.

Figure 26 Petaluma Transit Capital Spending Forecast (FY2016-2024)



Source: Short Range Transit Plan Petaluma Transit (2016).

4 FINDINGS

The transit providers in Sonoma County have some unique funding issues and opportunities, described below.

- The local funds recorded typically only include Sonoma County Measure M funds, and no other city or county funds. The City of Petaluma audit noted a temporary loan to the transit fund, and short-term transfers to cover capital project expenses. Santa Rosa has contributed a small amount for capital projects.
- The TDA and STA allocation adjustments through the Coordinated Claim process apply a clear, straightforward methodology. The TDA methodology does not appear to have direct links to service operating or market demand data, however. Such data would reflect changes in service and rider needs over time. Therefore, there is some risk that the allocation methodology could become misaligned with service levels, leading to resource priorities that do not match rider needs or expectations and erode cooperation between regional agencies.
- Each transit provider has a separate contract for demand response services in its jurisdiction. This can lead to more localized control, but also duplicated administrative, grant management, and planning tasks, as each agency oversees contracts for similar service in nearby areas. Most critical is ensuring separate contracts do not impede closely coordinated, rider-focused services. Specific to capital expenditures for rolling stock, the paratransit fleets for all three agencies are relatively old. Using a useful life benchmark (ULB) of five years, the average fleet age is either above or very close to the ULB. This indicates a significant opportunity for joint procurement, coordination efforts (both operations and capital) and perhaps even consolidation of the ADA paratransit program.
- Each transit provider can have its own funding reserve policy. Since all three providers are part of local agencies with different business groups (public safety, roads, etc.), reserve policies should be specific to the transit business or department. This can be a major issue for cash flow balances if not managed properly. Carryover funds, although an important part of the overall financial picture and protecting against fund fluctuations, are not a new or dependable operating revenue source.
- The FTA §5307 Urbanized Area Formula funds are a minor, yet stable part of the funding picture. Funding agencies generally expect these funds to remain at current levels or increase slowly over time to account for inflation and population increases.
- SCTA added SMART to the STA funding allocation process in 2017 to support transit services it provides. This effectively reduces the amount of funding to the existing transit providers in Sonoma County.
- As SMART starts filing NTD reports of service provided and consumed, they will be contributing to the overall allocation of FTA 5307 funds to the Santa Rosa urbanized area (UZA). SMART, Santa Rosa, and Sonoma County will likely make an agreement that SMART may claim these funds in proportion to the amount they contribute. In the future, when SMART rail cars need to be replaced, SMART could logically make a large claim for this funding, resulting in major reductions in federal funding availability for Sonoma County and Santa Rosa.
- The Transportation Development Act requires that recipients meet a 15 - 20% farebox recovery ratio to be eligible for TDA funds or face a funding penalty. Recent changes in

the law allow transit providers to use other local directly generated funds to calculate their farebox recovery ratio. Measure M funds have also allowed Sonoma County operators to remain above the 20% threshold, but as costs increase, maintaining this ratio is increasingly difficult. Transit providers in Sonoma County will need to continue to have vigilant funding plans available to meet their farebox recovery ratios as rider preferences change and other transportation services come online.

- Wages continue to rise in the Bay Area, affecting the cost to hire and retain labor. This in turn affects the cost to operate and purchase contracted transit services. Local agencies recognize this as an ongoing problem, which will require systematic and coordinated efforts to retain the quality teams.
- Vehicle cost and procurement:
  - Due to the California Air Resources Board (CARB) 2018 Innovate Clean Transit (ICT) rule that all new public transportation buses must be zero-emission from the year 2029 forward, vehicle cost and procurement will go through major changes in the next five to 10 years. The CARB expects all bus fleets to be zero emissions by 2040. ICT requires agencies the size of those in Sonoma County to each produce a transition plan and file it with CARB by mid-2023. The agencies can work together to manage their fleets and transition so they can maintain flexibility while meeting the regulations. It is also possible to form a large pool of agencies in the Bay Area to allow even more flexibility for the smaller agencies. The current relatively low average fixed route fleet ages for the three agencies gives them more flexibility in meeting the rule, even if they elect to only pool their resources as one managed fleet.
  - For larger agencies, the rule requires one-quarter of new buses to be electric starting in 2023, rising to 50% in 2026. The three agencies in Sonoma County qualify as smaller agencies, giving them until 2026 to meet the one-quarter requirement, without a waiver from CARB, and to begin acquisition of electric buses.
  - Electric vehicles today cost approximately 60% more than the equivalent natural gas- or diesel-fueled vehicle that Petaluma Transit's, Santa Rosa CityBus', and Sonoma County Transit's capital expenditure projections are based on. The electric charging infrastructure is another major cost component, costing up to $100,000 per vehicle, depending on local siting and conditions. As of December 2018, Sonoma County Transit had one electric vehicle in operation in Sebastopol, and Santa Rosa announced a plan to buy four battery electric vehicles. Agencies may look to:
    - Innovative and proactive funding measures leveraging federal (e.g., §5307, §5339), state (e.g., Low Carbon Transit Operations Program, TDA), and local revenue options.
    - Pooled vehicle and energy purchases to reduce and stabilize per-unit costs and administrative overhead.
    - Shared charging and maintenance locations to reduce facility costs, reduce maintenance contracts and/or staffing, and extend vehicle route distances and times. Note that Sonoma Clean Power, the local community choice energy provider, issued a solicitation of qualifications in January 2019 to create, "Electric Bus Charging Infrastructure for Sonoma and Mendocino County," a study identifying needs and action plans. This represents an important opportunity for the three transit agencies to carefully consider how they will work together in the future.

PHYSICAL ASSETS REVIEW

March 2019

1 OVERVIEW

Physical assets are critical to transit operations. Without buses, fueling facilities, maintenance bays, technology, and a place to wait for the bus, the three Sonoma County transit agencies cannot offer viable service to the public.

The Financial Review Memorandum detailed the capital revenues and expenditures related to physical assets. This memorandum describes the current level of coordination among the transit agencies and articulates functional areas where new or expanded opportunities for coordination may exist. This memorandum does not include granular details of every type of physical asset the transit agencies track.

2 DISCUSSION

FLEET AND SERVICE CHARACTERISTICS

Sonoma County Transit provides a county-wide service and local service in the smaller cities, towns, and unincorporated areas throughout the County with a fleet of 80 buses, 46 of which operate on compressed natural gas, and one by electric power. Petaluma Transit operates 11 diesel buses and three diesel-electric hybrid buses on its fixed-route system. Santa Rosa CityBus operates the largest urban network of the three main providers within the City of Santa Rosa with 28 vehicles.

As originally published in the Finance Review Memorandum, the California Air Resources Board issued the Innovative Clean Transit Regulation in 2018, requiring all new transit buses purchased beyond 2028 be zero-emission vehicles. Large transit agencies are expected to have one-quarter of new vehicle orders zero emission by 2023, increasing to 50% in 2026. Small transit agencies are expected to have one-quarter of new vehicle order electric by 2026, with no 50% benchmark, only the 2029 goal of 100% of replacement buses being electric. Agencies will also need to tackle the electric-charging infrastructure associated with the new buses. Additionally, there is a planning requirement for large agencies to submit a transition plan in 2022 and small agencies in 2023 (all three agencies in Sonoma County are considered small operators).

Service Level Projections

None of the three agencies project major fleet growth or contraction in the next 10 years. Sonoma County Transit projected a peak demand of 41 buses in 2019 increasing to 43 in 2023. Santa Rosa CityBus restructured the route network per the recommendations of phase one of the Reimagining CityBus Plan and developed a phase two plan for expansion. Due to funding restrictions, Santa Rosa CityBus is currently not moving forward with phase two of the plan. Petaluma Transit may implement some minor improvements in service over the next five years, including fleet expansion, pending the availability of funding.

Diversity of Vehicle Types

As shown in Figure 1, Petaluma operates diesel and diesel-hybrid for its fixed route service and gasoline vehicles for its paratransit service buses. Santa Rosa CityBus operates diesel buses and diesel-hybrid for its fixed-route service. Sonoma County Transit uses Compressed Natural Gas (CNG) for its heavy-duty coaches and gasoline for its cutaway minibuses. In December 2018, it introduced its first electric bus, a 30-foot heavy-duty coach.

Figure 27 Fixed-Route Fleet Details by Agency

Agency	Year	Make/Model	Number in Service	Length	Fuel Type
Santa Rosa CityBus	2000	New Flyer	3	40'	Diesel
	2002	Gillig Low Floor	4	40'	Diesel
	2002	Gillig Low Floor 29'	1	29'	Diesel
	2008	Gillig Low Floor 29'	3	29'	Diesel Hybrid
	2011	New Flyer DE40LF	7	40'	Diesel Hybrid
	2013	New Flyer XD-40	6	40'	Diesel
	2016	New Flyer	4	40'	Diesel
	2018	ElDorado Axess	0	40'	Diesel
Santa Rosa CityBus Total			**28**		
Petaluma Transit	1999	New Flyer	3	40'	Diesel
	2007	Gillig	4	35'	Diesel
	2011	Gillig	4	29'	Diesel
	2016	Gillig	2	35’	Diesel-Electric Hybrid
	2016	Gillig	1	40'	Diesel-Electric Hybrid
Petaluma Transit Total			**14**		
Sonoma County Transit (full-size buses)	2009	Orion	5	40’	CNG
	2010	Orion VII	10	40'	CNG
	2012	Orion VII	4	40'	CNG
	2013	ElDorado	9	40'	CNG
	2015	ElDorado	3	40'	CNG
	2016	ElDorado	4		CNG
	2017	Glavel	3		Gasoline
	2017	ElDorado	2		CNG
	2017	ElDorado	2		CNG
	2018	BYD	1		Electric
	2019	ElDorado	3	40'	CNG

Agency	Year	Make/Model	Number in Service	Length	Fuel Type
Sonoma County Transit Total (Full Sized Buses)			**46**		
Sonoma County Transit (small buses)	2011	ARBOC	3	26'	Gasoline
	2006	ElDorado	2	23'	Gasoline
	2008	Starcraft	5	18'	Gasoline
	2008	Amerivan	3	17'	Gasoline
	2012	Orion VII	6	22'	CNG
	2013	Glaval	1	25'	Gasoline
	2013	Glaval	4	22'	Gasoline
	2015	ElDorado	4	30'	CNG
	2016	Ford Transit	2	18'	Gasoline
	2016	Glaval	2	28'	Gasoline
	2016	Glaval	2	25'	Gasoline
Sonoma County Transit Total (Small Buses)			**34**		
Sonoma County Transit Total (All Buses)			**80**		
Total for All Sonoma County Agencies			**126**		

Replacement Schedule

Santa Rosa CityBus strives for a 15-year replacement schedule for fixed-route fleet. The paratransit fleet is on a five-year replacement schedule. The seven non-revenue vehicles do not have a specific replacement schedule. The CityBus management is working towards having them included in the City's regular replacement program. The City plans to purchase four battery-electric buses and three diesel buses in FY2020. Five buses from 2002 and three buses from 2008 will be replaced in the next three years, but once the seven 2011 vehicles come up for replacement, additional funding will be needed to continue the transition to electric buses.

Petaluma Transit uses a 15-year replacement schedule for fixed-route vehicles. The agency's paratransit fleet is on an eight-year schedule. Petaluma Transit formerly used the Public Transportation Modernization, Improvement, and Service Enhancement Account program (PTMISEA), the state bond-related revenue, to cover the local match for vehicle replacement. This bond revenue expired in 2016, and now the local match is paid for by the City of Petaluma using TDA funds, which is very similar to the funding history for the other two systems.

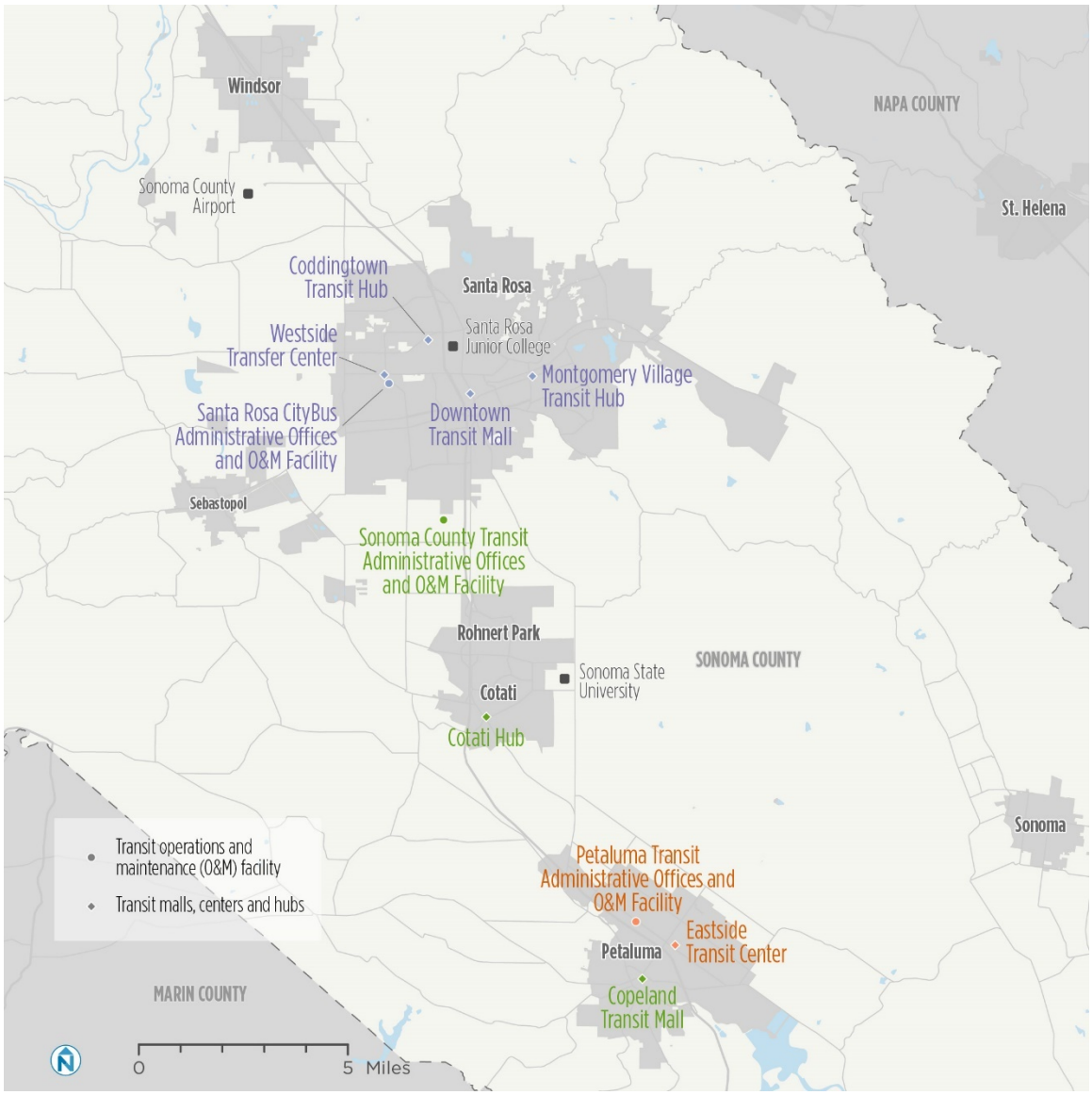
Sonoma County Transit fixed-route vehicles are on a 12-year replacement schedule and paratransit vehicles are on a seven-year cycle. Sonoma County Transit anticipates continuing to purchase CNG buses through 2025 and then begin transitioning to zero-emission coaches in 2026. Four additional battery-electric buses are planned for future rollout during FY2020-21 and FY2021-22.

FACILITIES

Facilities include the building infrastructure (such as administration offices and transit centers), and land or property owned, leased, or maintained by the agencies to operate transit service (such as bus yards for bus storage and garages for maintenance). Figure 12 illustrates the geographic distribution of the assets, by agency, throughout the County. Currently, there is no maintenance coordination between the agencies.

Sonoma County Transit and Petaluma Transit are administered in buildings dedicated to transit operations. Santa Rosa CityBus shares space with other city functions. The agencies reported there is enough capacity in administration and bus yard facilities to meet their planned needs. All three systems are administered in buildings dedicated to transit operations. The agencies reported there is sufficient capacity in administration and bus yard facilities to meet their planned needs. Sonoma County Transit has the greatest potential for expansion given that county-owned land adjacent to the present facility is undeveloped. There are two factors that could change this assessment: facility needs related to electrification, or a decision to begin aggressive expansion of public transit in Sonoma County. While there is some reserve capacity available, this would be a needed check point in an expanded transit network.

Figure 28 Transit Facilities in Sonoma County



Maintenance and Operations Facilities

Figure 29 Maintenance Fleet Capacity, by Agency

Facility Type	Sonoma County Transit	Santa Rosa CityBus	Petaluma Transit
Maintenance Bays	5	12, shared facility with City of Santa Rosa	2
Bus Yard	SCT-owned land available for expansion up to 75 vehicles	Shared space in City-owned corporate yard	14 fixed route buses, 9 paratransit buses

Santa Rosa CityBus

Unionized city staff maintain Santa Rosa CityBus's fixed-route vehicles. The vehicles are stored with other non-revenue vehicles in a City-owned corporate yard at 55 Stony Point Road. There are 233 vehicles considered at least medium duty, including the buses. There are 12 bay doors and a 40-foot bus can fit into 11 of them. Two of the bays have service pits.

Phase II of the Reimagining CityBus Plan identifies an expansion of fleet, garage, yard facilities, and improvements to the Transit Mall, Northside Transfer Center, and the Eastside Transfer Center. The transit vehicles are stored with other City-owned vehicles, and maintenance is done in a shared facility.

For paratransit operations, Santa Rosa CityBus provides the operating facility, but the contractor, MV Transportation, is responsible for the operating facility, all maintenance service, and the cost of all parts and materials.

Sonoma County Transit

Sonoma County Transit maintains and stores vehicles in a facility on the south side of the City of Santa Rosa at 335 West Robles Avenue. This is the site of administration, maintenance, washing, bus storage, compressed natural gas fueling, and dispatching for fixed route services. The County also provides the vehicles, fuel, and maintenance for the paratransit fleet operated by the Volunteer Center of Sonoma County at the same location.

Sonoma County Transit is seeking federal State of Good Repair funding to supplement local TDA and STA funds to rehabilitate its operations and maintenance facility. The bus yard has capacity to store up to 75 vehicles. There are also two charging stations for electric vehicles.

Petaluma Transit

Petaluma's maintenance facility is located at 555 North McDowell Boulevard, in the City of Petaluma. The facility has two bays, one of which can service all vehicles; it is double-height and utilizes mobile lifts. The second bay has a platform lift, is approximately 15 feet tall and can only service paratransit vehicles; there is only one entrance door for this lift. The Petaluma Transit facility is operating at capacity and would need additional maintenance bays in order to accommodate additional vehicles for future fleet expansion.

Transfer Centers and Transit Hubs

The Downtown Transit Mall in Santa Rosa is the most-used transfer point in Sonoma County. It is operated and maintained by the City of Santa Rosa. Transit riders can transfer between Santa Rosa CityBus, Sonoma County Transit, Golden Gate Transit, Mendocino Transit, and Greyhound. A connection to Sonoma-Marin Area Rail Transit (SMART) is about six blocks away at Railroad Square but access requires people to walk under the US-101 overpass or through the Santa Rosa Plaza mall.

The facility has 14 bays, with nine currently assigned to Santa Rosa CityBus. Wayfinding between Santa Rosa CityBus and SMART is shown in Figure 4, from the Santa Rosa CityBus website. Only Sonoma County Transit and CityBus are shown on the map.

The Coddingtown Transit Hub connects Sonoma County Transit and CityBus and is a long block from the North Santa Rosa SMART station. There is no real-time information there currently. A map showing the relative distance between the bus stop and the SMART station is shown in Figure 5.

The Copeland Transit Mall was constructed by Sonoma County Transit and is shared with Petaluma Transit and Golden Gate Transit. It is adjacent to the Petaluma SMART station and is the second busiest transfer point in Sonoma County.

Petaluma Transit has a real-time arrival board at the Eastside Transit Center. The facility includes two shelters, four bus bays, and benches.

Figure 30 Santa Rosa CityBus Transit Mall

Source: https://srcity.org/2587/Connect-to-SMART

Figure 31 Santa Rosa CityBus Coddingtown Transit Hub

Source: https://srcity.org/DocumentCenter/View/16989/Large-map-of-transit-connections-to-North-SMART-station?bidId=

In partnership with the City of Petaluma, Sonoma County Transit maintains Copeland Transit Mall, which is the major point of connection between Sonoma County Transit, Petaluma Transit and Golden Gate Transit in the City of Petaluma. It is one block from the Petaluma SMART Station. A second SMART station, located at the intersection of McDowell Boulevard and Corona Road, is in the environmental impact review (EIR) phase and will have an impact on transit service in Petaluma if and when it is built.

OTHER ASSETS

Assets that agencies manage beyond their vehicles include items such as: fuel and tires, technology hardware and software, bus stop amenities, and owned or leased property. All transit agencies receiving federal funding must maintain a federally required Transportation Asset Management (TAM) Plan. This includes an inventory of assets that includes the condition and expected longevity of each asset (from lightbulbs to large assets including buildings), known as the State of Good Repair.

Different agencies manage their programs differently because the Federal Transit Administration allows for some flexibility based on an understanding of the cost to maintain such an inventory. Because Transportation Asset Management Plans are mandatory, however, they are another area that warrant consideration for coordination between the three transit agencies. This coordination could come in the form of joint procurement of asset management software; shared policies on what assets are included, prioritized, or categorized; or in joint staff training or reporting.

Fuel and Tires

In the City of Petaluma, the city purchases fuel for fixed-route and paratransit vehicles from Petaluma City School District. Petaluma Transit purchases tires through their contractor, MV Transportation, but would be interested in doing joint procurement to limit the potential for mark-up by the contractor.

Sonoma County Transit provides CNG fueling to each bus parking space for the fixed-route fleet. They also provide fuel for the gasoline-powered paratransit fleet.

Santa Rosa CityBus uses a city contract for fuel and tires since they maintain a much larger fleet of vehicles.

Technology

As discussed in the Technology Systems Review Memorandum, each agency procures hardware and software for planning and operations. The Clipper® card fare payment system and 511.org are the current systems that are regionally coordinated.

Park-and-Ride Lots

Nine Park-and-Ride lots throughout Sonoma County are served by multiple agencies. Applicable cooperative agreements between agencies should continue. Figure 6 lists the locations of Park-and-Ride lots currently served by more than one transit agency in Sonoma County.

Figure 32 Park-and-Ride Lots Served by Multiple Transit Agencies in Sonoma County

City	Location	Spaces Available	Transit Service
Santa Rosa	Piner Rd/Industrial Way	90	Santa Rosa CityBus, Golden Gate Transit
Santa Rosa	Hwy 12/Brookwood Ave	215	Santa Rosa CityBus, Golden Gate Transit
Sebastopol	Petaluma Ave/Burnett St	40	Sonoma County Transit, Golden Gate Transit
Rohnert Park	Rohnert Park Expressway/Hwy 101	150	Sonoma County Transit, Golden Gate Transit
Rohnert Park	Rohnert Park Expressway/Hwy 101	180	Sonoma County Transit, Golden Gate Transit
Cotati	St. Joseph Way/Old Redwood Hwy	185	Sonoma County Transit, Golden Gate Transit
Petaluma	Gossage Park-n-Ride North Petaluma Blvd/Gossage Ave	20	Sonoma County Transit, Golden Gate Transit
Petaluma	Lakeville St (Hwy116)/Hwy 101	145	Sonoma County Transit, Golden Gate Transit
Petaluma	Washington St/Payran St (Sonoma-Marin Fairground)	600	Sonoma County Transit, Petaluma Transit, Golden Gate Transit

Source: Sonoma County Transit Website. www.sctransit.com/park-and-ride/

Bus Stop Amenities

Transit agencies can control several types of amenities at bus stops that increase customer satisfaction, including benches, shelters, signs, information about the service that stops there, trash receptacles, and newspaper boxes. Pedestrian connectivity to bus stops is often outside of the purview of transit agencies. However, in the case of the three Sonoma County Transit agencies, which are all city or county-run operations, a higher level of coordination is possible. While expanding sidewalks is not likely to be a priority area for coordination for most routes, other capital improvements offer opportunities for the transit agencies to consider joint procurement (benches, signage) and a common style or branding.

3 FINDINGS

The most obvious impact to transit agencies' physical assets in the next decade will result from the new California Air Resources Board Innovative Clean Transit Regulation. As covered in the Finance Memorandum, new vehicles, new and expanded infrastructure to charge electric vehicles, new partnerships, and electricity purchasing programs will all be required. This new requirement provides an opportunity for the three Sonoma County Transit Agencies to work together.

New charging stations will need to be placed strategically, which gives Petaluma, Santa Rosa, and the County an opportunity to coordinate. In December 2018, the Bay Area Air Quality Management District issued a Request for Proposal titled, "Electric Vehicle and Charging Infrastructure Survey and Research Services." Its focus is mainly on light-duty vehicles, but there is still much to be learned about the process, needs, technology options, and barriers for charging stations.

Currently PG& E is the primary provider of electricity in Sonoma County (energy can also be purchased through Sonoma Clean Power). At the end of January 2019, PG&E filed for Chapter 11 bankruptcy protection. This is likely to have an impact on programs available to help transit agencies build out the infrastructure needed for an entire transit fleet.

There is a basic level of coordination between Sonoma County Transit and Santa Rosa CityBus at the Santa Rosa Transit Mall in Downtown Santa Rosa, and between Sonoma County Transit and Petaluma Transit at the Petaluma Copeland Transit Mall. There is also an opportunity to continue to refine staffing levels and resources in Santa Rosa and to discuss how other agencies---even those outside the three main agencies included in this study---could help share costs or work force. Figure 7 provides a list of other opportunities for physical asset integration.

Figure 33 Potential Opportunities for Agency Integration

Opportunity	Discussion
Joint Fixed-Route Fleet Procurement	Agencies enter a purchase program that allows for volume purchases. This could be particularly relevant as all vehicles switch to zero-emissions vehicles. A new program to help find local match so that TDA funds can go towards operations. A program that helps keep rolling stock up-to-date and in a state of good repair. A joint transition plan for electric vehicles.
Joint Paratransit Procurement	Agencies enter a purchase program that allows for volume purchases. The exploration is to see if a new program could be more efficient than the current CALACT program.
Regional Transit Fleet	One entity owns the fleet, with all three agencies using or leasing the vehicles.
Joint Equipment Purchase	Coordinate the purchase of hardware, software, tires, electric charging station infrastructure, bus or facilities parts, amenities at bus stops.
Joint Maintenance	Share one contract for maintenance for all vehicles in the County.

Opportunity	Discussion
	Share an asset management system, whether in procurement or in categorization of assets.
Joint Fuel Procurement	Procure fuel/power together, for vehicles that will be using electric power, or for those vehicles that remain and operate on fossil fuels, such as paratransit and non-revenue vehicles.
Shared Passenger Facilities	Expand the coordination and shared financial resources at shared bus stops and transfer centers. This can include labor for maintenance and cleaning, as well as resources for amenities like benches, lighting, and information and ticketing kiosks.

TECHNOLOGY SYSTEMS REVIEW

January 2019

1 OVERVIEW

Transit agencies must be able to push out information to riders and potential riders. Technology is also essential behind the scenes to deliver service. From planning and scheduling to tracking vehicle locations, transit agencies use a multitude of systems to run smoothly and efficiently.

The technology systems used in Sonoma County were selected by each agency for reasons related to cost, procurement process, timing, and desired outcomes. The multitude of choices and systems within each agency makes integration challenging. In many cases, the agencies have technological solutions that are not compatible with those used by other operating agencies.

The upside is that the agencies are presently offering these benefits to current riders. The downside is that the patchwork of choices and systems makes integration more difficult, or even impossible. This means that potential new riders, especially the multitude of residents and employees who travel regionally (and represent the majority of travel in the region), are confronted with systems that may be confusing, thus forming a barrier to new transit ridership in Sonoma County.

One notable exception to this spectrum of system choices is the Clipper® Card. Clipper® Card is accepted by the three Sonoma County operators and all other bay area transit operators. Market penetration of Clipper® is extremely limited in Sonoma County when compared with other parts of the Bay Area. However, the north bay area was the last part of the region to be added to the program, and with time and continued promotion, usage in Sonoma County is likely to grow

This memorandum provides an overview of the technology systems in use by Petaluma Transit, Santa Rosa CityBus, and Sonoma County Transit, with a focus on the opportunities for cooperation, collaboration, or integration within Sonoma County.

2 DISCUSSION

TECHNOLOGY SYSTEMS

Figure 1 provides a summary of key technology systems used by the transit operators.

Figure 34 Technology Systems Comparison

System	Petaluma Transit	Santa Rosa CityBus	Sonoma County Transit
Automatic Vehicle Location	Avail	Avail	NextBus
Real-Time Information	Avail MyStop	Avail MyStop	NextBus
Automated Passenger Counters	Avail	Avail	NextBus
Fare Collection Apps	Clipper® card	Clipper® card	Clipper® card and Hopthru
Route Planning	None	Remix	Remix
Fixed-Route Scheduling	None	The Master Scheduler	Transdev & Remix
Paratransit Scheduling	Trapeze PASS Tablets via MV	Trapeze via MV. Tablets in vehicles	TripSpark
Radio Systems	Shortwave radio for dispatch and fixed-route. Supervisors carry UHF	Day Wireless Systems	County Communications and outside vendors
On-Board Camera System	Seon	Seon	REI

Automatic Vehicle Location, Real Time Information, Automated Passenger Counter

Onboard automatic vehicle location (AVL) hardware allows agencies to track the location of their buses, which can then be synced to software that allow agencies to track on-time performance and push real-time bus arrival predictions out to customers. It is important to note that once an agency selects the AVL hardware to be installed on each bus, the software needed to communicate between them is established. However, if the systems are organized and designed to create open architecture data, rather than a proprietary database, the opportunity exists to allow third party applications to utilize that data. This, in turn, creates an opportunity for the rider to experience a consolidated system that can provide real-time information on all the county's transit systems at one time.

Santa Rosa CityBus and Petaluma Transit use Avail for AVL, real-time information, and for automated passenger counting (APC). Santa Rosa CityBus acquired their system through a joint procurement with SolTrans and Napa. Petaluma Transit is still in their initial five-year contract but is open to future joint procurements with Santa Rosa CityBus. Sonoma County Transit has a contract with NextBus for real-time information and APC.

Customer Information

Currently customers can plan a trip by using Google Maps, but not everyone knows to select the transit icon to switch from driving, and there is no information about transfer fare policies for trips requiring multiple transit agencies. The bus route numbers are displayed, but it is not always clear which operator is providing the service. Google Maps is better suited for trips that can be completed locally with one agency, or for those who are already familiar with the services and just need trip times.

Riders want a seamless experience, with information available for the whole trip through a single app or website. This can be more challenging for those who require interagency transfers and can be a barrier to riding. The one website that publishes real-time information for all three agencies is 511.org. There is no plan for a mobile app because it is formatted for mobile devices. The transit agencies report that integration of real-time information with 511.org has been problematic. It also requires a rider to enter their stop and has limited functionality.

Beginning in August 2019, trip planning will no longer be provided through 511.org. This function will be accomplished through using Google Maps, although real time transit departures will continue to be available on 511 phone services. Google Maps has a more user-friendly interface for mapping the whole trip.

There are some third-party systems available. The Transit app displays real-time information for Sonoma County Transit and Sonoma-Marin Area Rail Transit (SMART) and displays scheduled arrival times for Petaluma Transit and Marin Transit. Santa Rosa CityBus and Petaluma Transit both have real-time arrivals on the MyStop mobile app, and while it is relatively easy to toggle between systems, there is no single mobile app that contains real time information for all of the transit options in Sonoma County: Golden Gate Transit, SMART, Sonoma County Transit, Santa Rosa CityBus, Petaluma Transit, and Mendocino Transit.

Data Analysis – System Optimization

One crucial aspect of hosting real-time location systems is the ability to store, access, and analyze raw data. For example, raw data is used for tracking performance metrics like on-time performance, and for improving planning and scheduling. Petaluma and Santa Rosa are currently making plans to share a portion of the Santa Rosa Technology Coordinator's time with Petaluma to facilitate data access for Petaluma. This will enable the agencies to validate APC data and fix issues as they occur—technical difficulties are common with these systems and can substantially impact their usefulness as a monitoring and analytical tool. Sonoma County Transit is supported with the current staff in this respect.

Fare Collection

All three agencies support Clipper® fare payment. Clipper® readers are installed next to fareboxes on each bus. Riders tap their cards against it and the appropriate fare is deducted. The benefit to riders using Clipper® is that any discounts are calculated automatically. It also eliminates the need to carry exact change. Current limitations of Clipper® include the inability to immediately use value purchased online or by phone or to integrate with mobile phones. Clipper® also is not able to integrate with non-transit transportation modes, such as bike share. The agencies also note that making fare changes or offering fare promotions is not simple with Clipper®.

Santa Rosa CityBus and Sonoma County Transit have electronic fareboxes outside of their Clipper® card readers. Santa Rosa has a contract with Electronic Data Magnetics (EDM) for tickets and transfers on buses.

Petaluma Transit uses cash boxes with a vaults to collect cash fares onboard, and mobile apps for those paying with passes or single ticket on-line purchases through the app. Beyond Clipper®, Petaluma Transit does not have electronic fare collection on board, such as ability to process credit cards, issue electronic transfers, sell day passes, or give change. The benefits of the traditional fareboxes is the lower cost to collect fares, but the challenge is that they are unable to offer a wider range of on-board transactions.

Mobile Payment

According to Mass Transit magazine, 87% of transit agencies have implemented or are implementing mobile ticketing. [34]

Benefits for passengers include ease of use and eliminating the need to carry cash. The benefit to the agency is the ability to:

- Reduce the cost of fare collection through fewer cash fares
- Reduce dwell time of waiting for cash-paying customers
- Increase the amount of automated ridership data that can be used for planning and reporting

The challenges with mobile payment may include:

- Equity issues, such as the need for riders to have a smartphone
- The need for riders to have their accounts linked to a bank account
- The cost to the agency of offering both paper fares or transfers and a mobile app
- Funding challenges due to the pace with which technology becomes outdated or obsolete

Since January 2018, Sonoma County Transit has used Hopthru for mobile ticketing. Santa Rosa does not currently have a contract with any mobile ticketing apps. Unfortunately, most mobile ticketing systems work independently and frequently require the customer to download individual apps to their mobile phone for each transit operator they use.

Clipper® card adoption among transit riders is less than 10% in Sonoma County, across all agencies. On the other hand, it is the primary form of payment on SMART, although SMART also features a mobile ticketing app. In 2021, Clipper® is expected to roll out a mobile application as part of the Clipper 2.0 program. The goal is to make the card more user friendly with upgrades that include not having to wait three days to add value to cards and automatic balance updates. These enhancements may help increase the penetration of Clipper® among transit riders in Sonoma County.

[34] Mass Transit Research Report. "The Future of Fare Collection in Transportation." October 2016.

Fixed Route Planning and Scheduling

Santa Rosa CityBus and Sonoma County Transit use Remix for route planning. Petaluma Transit does not use any planning software. Santa Rosa CityBus uses The Master Scheduler (TMS) for scheduling. Sonoma County Transit has not used Remix but has purchased the license. They are currently scheduling manually.

Petaluma Transit previously tried to use Remix for scheduling, but when the scheduling platform did not sync well with their Avail system during a service change, they reverted to scheduling by hand. Eliminating the Remix contract saved the City of Petaluma over $20,000 a year, however they do intend to purchase a scheduling software in the near future. There have been talks between Santa Rosa CityBus and Petaluma Transit regarding a joint procurement of scheduling software, but Santa Rosa is still two years away from the expiration of their existing scheduling contract.

Paratransit Scheduling

Petaluma Transit's contractor, MV Transportation, is responsible for providing the scheduling software, Trapeze PASS. They have encountered difficulties with the software and are trying to work with MV Transportation to use it more efficiently.

MV Transportation is also responsible for the Trapeze scheduling software used by Santa Rosa CityBus. Sonoma County Transit, though the Volunteer Center of Sonoma County, owns Trapeze TripSpark for scheduling and dispatching. In early 2019, the service was expanded to provide text messaging, email messaging, or voice calls directly to passengers regarding upcoming trips. In spring 2019, this service will expand to provide a passenger portal on Sonoma County Transit's website, sctransit.com, allowing paratransit passengers to make trip requests, confirm upcoming trips, or cancel previously reserved trips.

Radio Systems

Communications are an important consideration if the agencies decide to go into a common system for operational management, often called computer-aided dispatch (CAD) and automatic vehicle location (AVL). These systems support ancillary systems such as automatic passenger counter (APC) or real time passenger information. However, even as separate entities each transit agency's communication system would need to be the same, at least for data, to be able to communicate via radio. This could facilitate the availability of open source data to feed rider-based systems like In-Transit or One-Bus way or the coming Google app for real time information (Google Transit is presently only a static system, presenting "planned" information, except for a few systems that are part of a real-time information pilot).

Today, there is no way for operators to communicate with operators at another agency. The current limitation of the systems to interact to coordinate passenger transfers would also be enhanced if the systems were to utilize a singular communications backbone. Today, there is no way for operators to communicate with operators in a different agency.

For their on-board radio system, Santa Rosa CityBus uses Day Wireless, which is a citywide contract that expires in April 2019. Through this contract, the city is moving from Motorola equipment to Kenwood. Petaluma Transit uses handheld devices for radios. Sonoma County Transit uses the County Communications radio channels UHF 453.625 and 458.625.

The important issue with radio systems is that conventional UHF frequencies are being impacted by the Federal Communications Commission as they make more radio space available for use in advance cellular-based data transmission (e.g., 5G). Creating more bandwidth is a high priority, which means they are subdividing what used to be wider bands of frequency. As a result, older systems like the County's UHF system will likely need to be changed, modified, or upgraded in the future.

On-Board Camera System

Santa Rosa CityBus and Petaluma Transit both use SEON for on-board video recording. Santa Rosa CityBus is in the process of upgrading the DVR and recording device on their newer buses, but not the cameras themselves. Santa Rosa CityBus has been very happy with the customer support. Petaluma Transit is planning a long-term upgrade of the entire audio-video surveillance system, as having multiple versions of the systems on different buses results in data processing issues. Sonoma County Transit uses REI. There are no service contracts, just updates to hardware when needed by the agency.

3 FINDINGS

The County has an opportunity to move to compatible hardware and software systems each agency's fleet turns over during the next 12 to 15 years. As hardware gets installed on new buses when older vehicles are retired, agencies in Sonoma County can rethink their currently fully-independent approach to the use of technology and the customer interface. They can also establish a set of milestones and regional goals for new vehicle procurements that could meet the needs of all agencies and allow for greater integration, particularly of technology systems and customer information. Figure 2 lists opportunities for integration.

Figure 35 Opportunities for Agency Integration

System	Opportunities	Comments
Automatic Vehicle Location	Standardize AVL and database systems	Longer term solution
Real-Time Information	Cooperatively procure and manage AVL and radio systems	Sonoma County could have one portal for all real time transit information
Automated Passenger Counters	Build a common data system	This goes with the AVL system
Fare Collection Apps	▪ Use the same fare payment apps. ▪ Increase use of Clipper® ▪ On-board cash systems can remain as is as the long-term trend will be decreasing emphasis on cash as the payment type of choice	This should be a high priority
Route Planning	Consider whether a regional or county-wide contract with Remix (or other software) would be useful or beneficial	
Fixed-Route Scheduling	Share a common database and deploy the same software	More challenging if the software is only being used by separate contractors
Paratransit Scheduling	This probably goes with the providers, but there certainly could be common software and a common database	
Radio Systems	For a common real-time database, all three systems could share the same communication cabling.	This should be a high priority
On-Board Camera System	Cooperatively procure a system	

IMPACT OF TECHNOLOGY ON PEOPLE

Data validation and quality control is an industry-wide issue. Employing staff who can interpret and effectively use the technology is fundamental. Consolidating intelligent transportation systems makes it easier to share data, and to develop reporting tools that can be used by agencies and disseminated to riders and local decision-makers.

Fixed Route Service Review

Opportunities for Improved Coordination

February 2019

1 INTRODUCTION

This memorandum examines fixed-route operations and identifies potential opportunities for improving coordination that could lower operating costs and/or improve the passenger experience. The following opportunities are examined:

- Schedule Coordination (span, headway, etc.)
- Transfer facilities and location
- "Service sharing" (adjusting routes to improve overall coverage)
- Customer experience

This effort was not intended to replicate the full fixed route analysis typically found in a Comprehensive Operations Analysis and is not based on either the collection of new data or extensive field research. The consultant relied on a review of existing documents and input gathered from operators at team meetings.

While this study is intended primarily for identifying coordination opportunities between the Sonoma County bus systems, this memorandum also considers opportunities for potential coordination involving SMART and/or Golden Gate Transit.

MTC RESOLUTION 3866 – SERVICE COORDINATION

Under MTC Resolution 3866, transit operators covering a given geographic area agree to work together on a variety of future coordination efforts. In Sonoma County, those coordination efforts touch on:

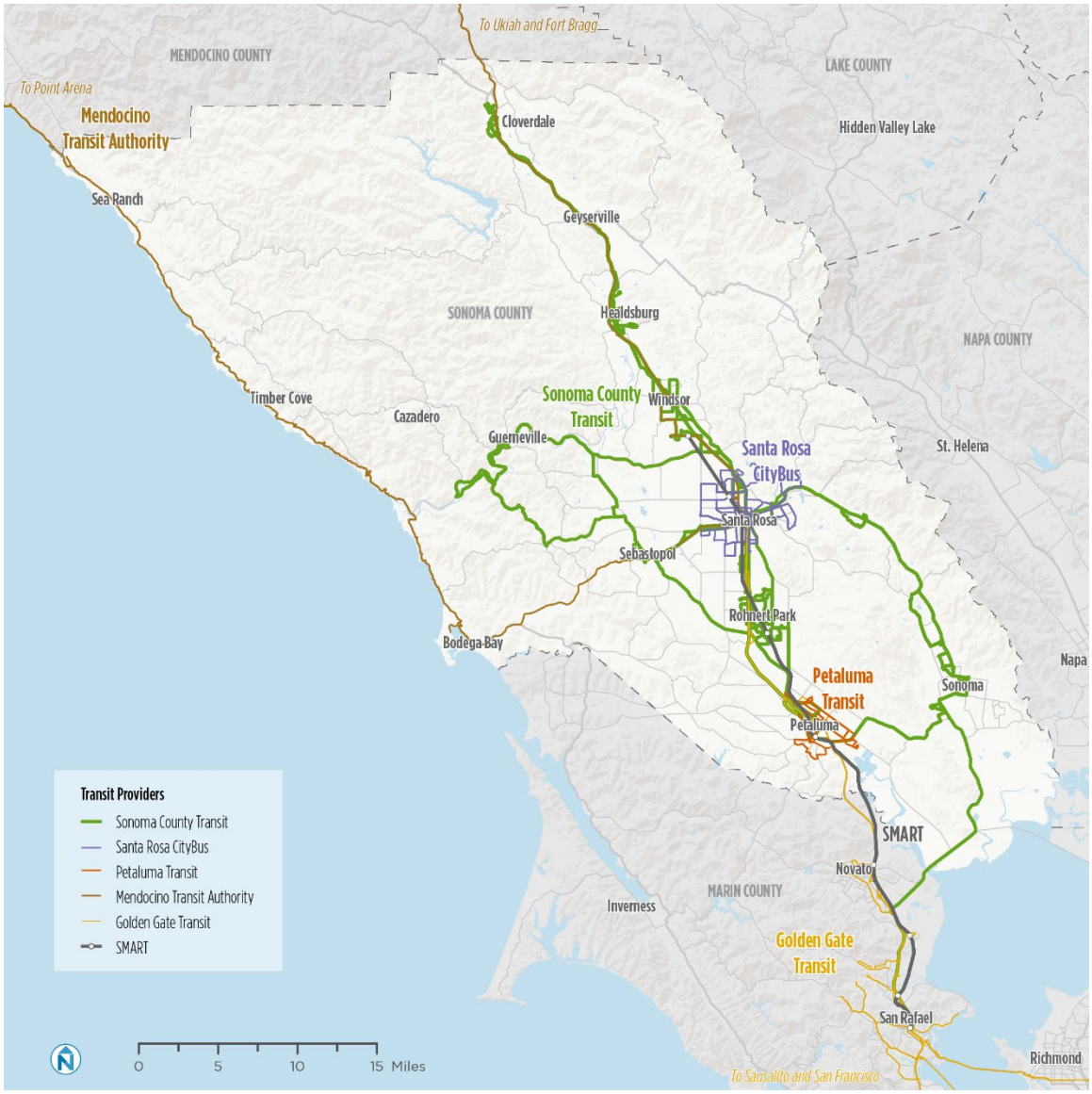
- Improving customer service and marketing
- Improving trip planning and real time arrival information
- Developing a single system wide map
- Implementing standard transit signage for all passenger facilities
- Improving schedule coordination (service spans, headways, etc.)
- Ensuring seamless bus/rail connectivity with SMART trains
- Ensuring seamless fare payment and transfers
- Consolidating and improving multi-agency bus stops

These efforts are designed to improve interagency coordination and integration and make customer travel more seamless between systems. As such it forms both guidance for this effort in terms of identification of areas where improvements can be made, but also will assist the agencies as they move forward into implementation.

2 OVERVIEW OF SYSTEMS

Generally, transit services in Sonoma County are focused on areas with higher concentrations of population and a network that ties most of the communities in the County together. Services such as Sonoma County-related services, medical services, major shopping and greater regional connections (SMART, Golden Gate Transit) all tend to be focused in the core population area of the county, thus requiring residents who cannot or choose not to use autos to travel to these locations to reach services. The map shown in Figure 1 illustrates the fixed route network and connectivity.

Figure 36 Sonoma County Fixed Route Transit Network



PETALUMA TRANSIT

Service Characteristics

Petaluma Transit began operations in 1976. Today's fixed route system, which carries over 310,000 passengers per year[35], is designed primarily to serve local trips within Petaluma. It also links residents with regional transit services-Sonoma County Transit, SMART Rail and Golden Gate Transit. Over the past four decades, Petaluma Transit has grown from a two-bus operation into six regularly scheduled fixed routes, plus five specialty routes (trippers) designed primarily to serve local schools. A map of the fixed route transit service in Petaluma is displayed in Figure 2.

Figure 37 Petaluma Area Fixed Route Transit Network

[35] Source – Petaluma Transit FY 2017/2018 Performance Stats - MS Excel

Figure 3 presents the service characteristics for each of the routes.

Figure 38 Petaluma Transit Span of Service and Average Headway [36]

Route	Weekdays	Saturdays	Sundays
2	Span: 6:30am-8:00pm Headway: 30	Span: 7:30am-7:30pm Headway: 60	Span: 8:30am-4:30pm Headway: 60
3	Span: 6:30am-8:00pm Headway: 60	No service	No Service
10	Span: 7:30am-6:30pm Headway: 60	No Service	No Service
11	Span: 6:30am-8:00pm Headway: 30	Span: 7:30am-8:00pm Headway: 30	Span 8:30am-5:00pm Headway: 30
24	Span: 6:30am-7:00pm Headway: 15/30/60	No Service	No Service
33	Span: 7:00am-8:30pm Headway: 60	Span: 8:00am-8:30pm Headway: 60	Span: 9:00am-5:30pm Headway: 60
302, 303, 311, 312 & 501	School bell time (single trips)	No Service	No Service

Fleet

Petaluma's fixed route fleet of 14 vehicles includes a mix of 30-, 35-, and 40-foot standard heavy-duty transit buses.

SONOMA COUNTY TRANSIT

Service Characteristics

Sonoma County Transit began operations in 1980. Today's system carries about 1.2 million passengers. Sonoma County Transit's fixed route network connects most of the communities in the county and functions primarily as a regional transportation service. Connections are possible at local stops and transfer centers with Petaluma Transit, Golden Gate Transit, Santa Rosa CityBus, SMART Rail and Mendocino Transit.

Sonoma County Transit's network of 29 routes splits into four types of services: Mainline regional connectors (e.g. Route 60), limited service commute/college routes (e.g. Routes 34 and 38), local shuttles (e.g. Route 67) and seasonal shuttles (e.g. Route 29). Sonoma County Transit's core routes (20, 30, 44/48 and 60) operate after 7pm. There is limited service across the network on Saturdays. Four routes operate on Sundays. The level of service ranges from just a few trips on Route 30 to every 90 minutes on Route 60. A map that displays the fixed route transit network in core population area of Sonoma County is displayed in Figure 4. Figure 5 presents the service characteristics for each of the Sonoma County Transit routes.

[36] Service span times as shown are approximate

Figure 39 Sonoma County Fixed Route Transit Network in Core Population Area

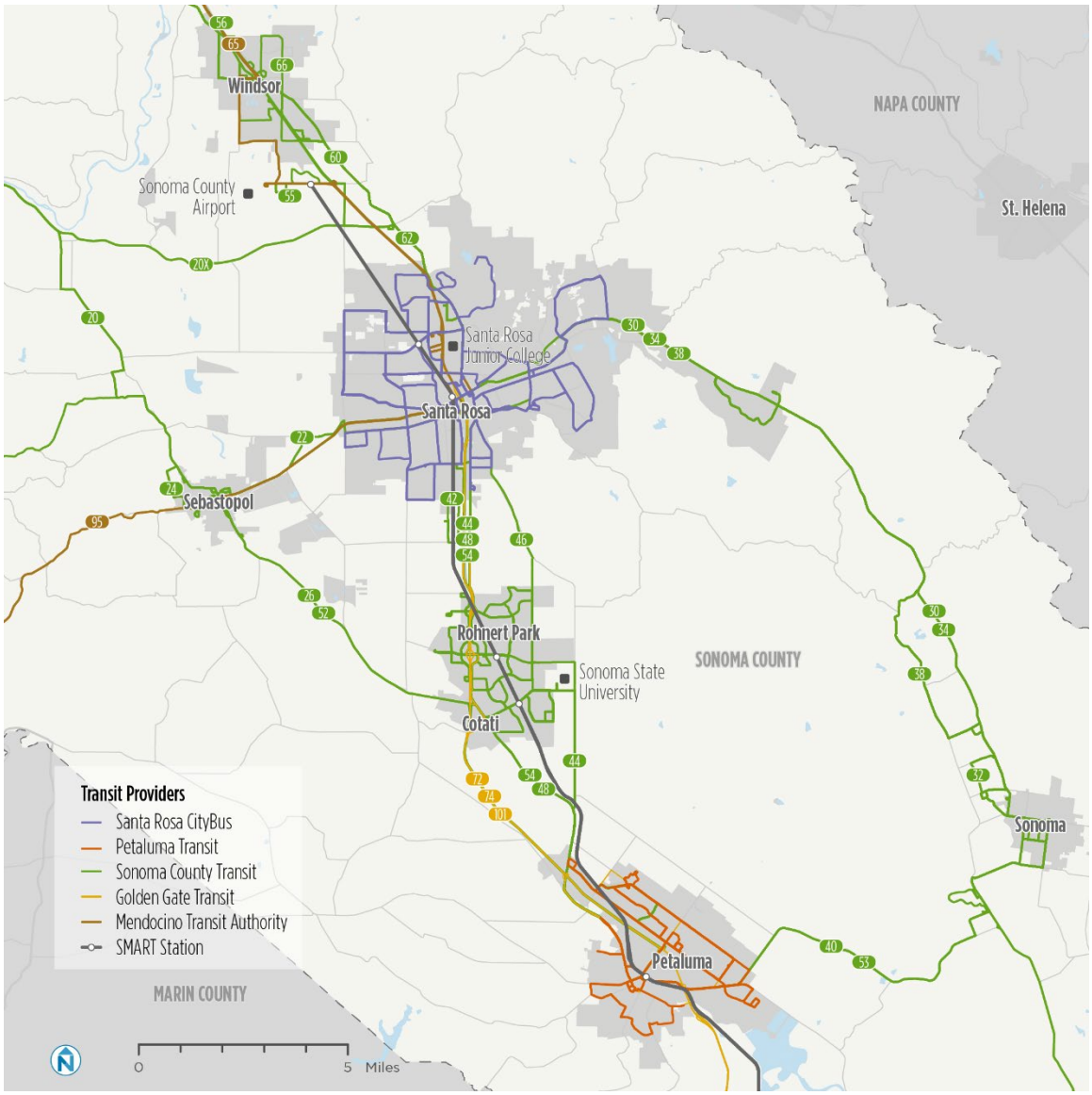


Figure 40 Sonoma County Transit Span of Service and Average Headway[37]

Route	Weekdays	Saturdays	Sundays
10	Span: 6:30am-5:45pm Headway: 60	Span: 9:00am-3:45pm Headway: 120	No Service
12	Span: 6:30am-4:50pm Headway: 6 trips	Span: 9:45am-4:45pm Headway: 4 trips	No Service
14	Span: 8:10am-5:20pm Headway: 5 trips	No Service	No Service
20	Span: 6:00am-7:50pm Headway: 90	Span: 8:45am-6:20pm Headway: 180	Span: 8:45am-6:20pm Headway: 180
22	Span: 8:00am-4:45pm Headway: 3 trips	No Service	No Service
24	Span: 9:20am-6:40pm Headway: 45	Span: 9:10am-3:00pm Headway: 45	No Service
28/29/29A	Seasonal Shuttles	N/A	N/A
30	Span: 5:50am-7:30pm Headway: 90	Span: 8:15am-5:00pm Headway: 4 trips	Span: 8:15am-5:00pm Headway: 4 trips
32	Span: 8:10am-4:10pm Headway: 60	Span: 9:30am-2:15pm Headway: 5 trips	No Service
26/34/38/40/52/53/ 54/55/56/57	Commute Only Headway: 1-4 trips	No Service	No Service
48	Span: 7:20am-6:30pm Headway: 90	Span: 7:15am-7:10pm Headway: 5 trips	Span: 7:15am-7:10pm Headway: 5 trips
60	Span: 6:30am-9:15pm Headway: 60	Span: 8:30am-6:40pm Headway: 90	Span: 8:30am-6:40pm Headway: 90
62	Span: 7:25am-5:10pm Headway: 90	No Service	No Service
66	Span: 8:00am-5:10pm Headway: 50	Span: 9:30am-3:30pm Headway: 50	No Service
67	Span: 8:50am-4:00pm Headway: 70	Span: 8:50am-4:50pm Headway: 70	No Service
68	Span: 8:00am-3:30pm Headway: 45	No Service	No Service

[37] Service time spans are approximate.

Fleet

Sonoma County Transit's fleet has 51 vehicles, and is a mix of 30' and 40' standard heavy-duty transit buses, plus a variety of medium-duty 18'-28' buses. All heavy-duty buses operate on natural gas with the exception of one electric bus introduced into the fleet in December, 2018.

SANTA ROSA CITYBUS

Service Characteristics

CityBus began in 1958. Today the system transports over 1.7 million passengers per year[38]. The system is primarily designed to meet the needs of local travel but it also connects passengers to Sonoma County Transit, SMART, and Golden Gate Transit regional services. CityBus' 14 fixed routes and one deviated fixed route provide service seven days a week on headways ranging from every 15 minutes to every 75 minutes. A map displaying the CityBus fixed-route transit network is displayed in Figure 6. Figure 7 presents the service characteristics for each of the routes. Routes 2/2B and 4/4B schedules are staggered to take advantage of combined frequency. This means service is every 15 minutes for customers, even though the headways for each individual route is still 30 minutes.

[38] Source – FY 2017/18 Monthly Dashboard MS Excel

Figure 41 Santa Rosa Area Fixed Route Transit Network

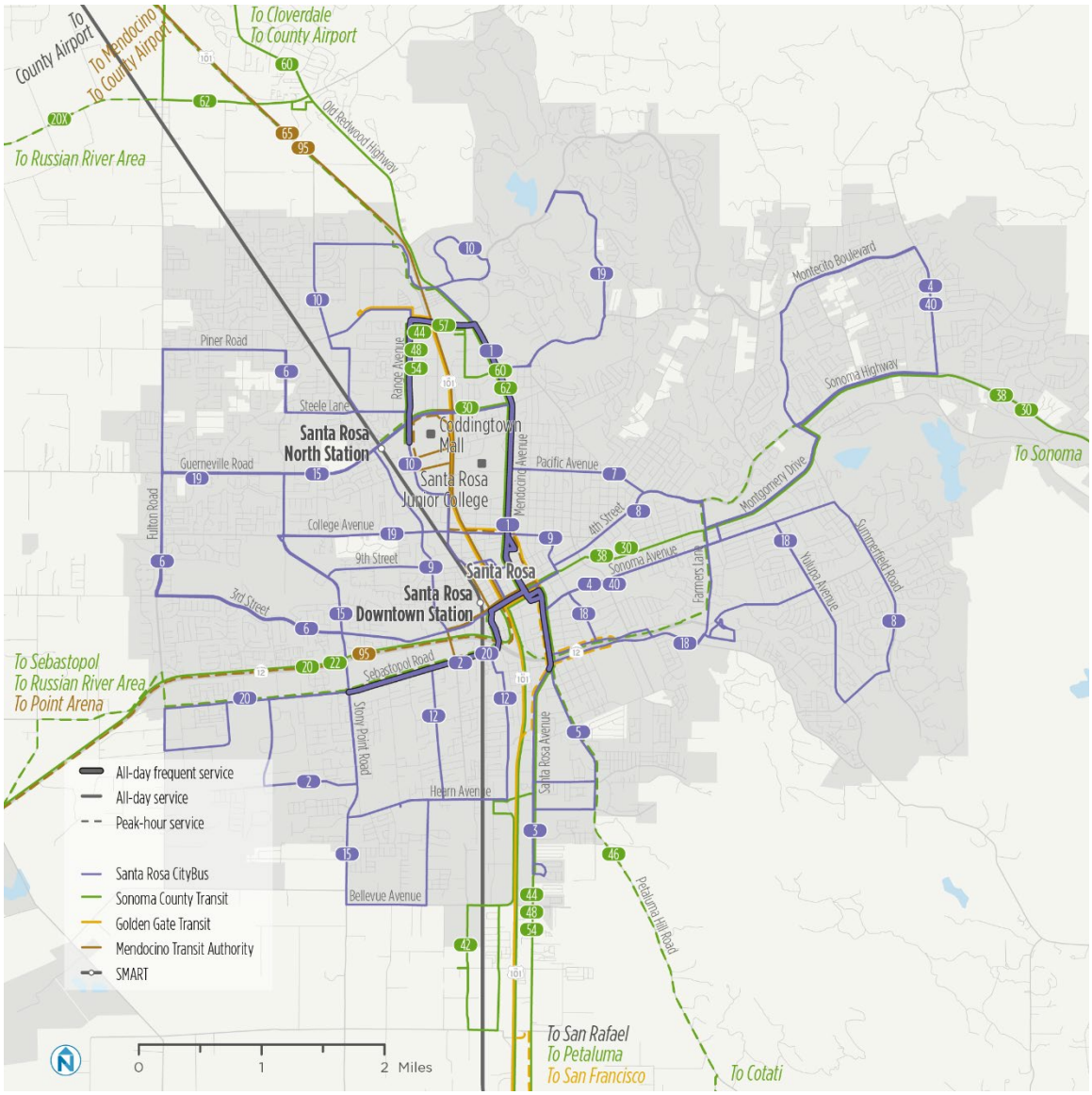


Figure 42 Santa Rosa CityBus Span of Service and Average Headway[39]

Route	Weekdays	Saturdays	Sundays
1	Span: 6:00am-8:10pm Headway: 15	Span: 6:00am-7:40pm Headway: 30	Span: 10:10pm-5:00pm Headway: 45
2[40]	Span: 6:00am-8:00pm Headway: 30	No Service	No Service
2B	Span: 6:15am-8:15pm Headway: 30	Span: 6:15am-8:15pm Headway: 60	Span: 10:15am-5:30pm Headway: 60
3	Span: 6:00am-8:00pm Headway: 30	Span: 6:00am-7:30pm Headway: 60	Span: 10:00am-4:30pm Headway: 60
4[41]	Span: 6:00am-7:50pm Headway: 30	Span: 6:00am-7:50pm Headway: 60	Span: 10:00am-4:30pm Headway: 60
4B	Span: 6:30am-8:20pm Headway: 30	No Service	No Service
5	Span: 6:15am-8:10pm Headway: 30	Span: 6:30am-8:00pm Headway: 60	Span: 10:30am-5:00pm Headway: 60
6	Span: 6:00am-8:10pm Headway: 30	Span: 6:30am-8:40pm Headway: 60	Span: 10:25am-5:55pm Headway: 75
7	Span: 7:20am-5:10pm Headway: 60	No Service	No Service
8	Span: 6:00am-8:20pm Headway: 30	Span: 6:30am-8:20pm Headway: 60	Span: 10:30am-5:20pm Headway: 60
9	Span: 6:15am-8:10pm Headway: 30	Span: 6:45am-8:10pm Headway: 60	Span: 10:45am-5:10pm Headway: 60
10	Span: 6:15am-8:15pm Headway: 30	Span: 7:45am-5:35pm Headway: 60	Span: 9:45am-4:35pm Headway: 60
12	Span: 6:15am-8:10pm Headway: 30	Span: 6:15am-7:45pm Headway: 60	Span: 10:15am-4:45pm Headway: 60
15	Span: 6:20am-8:10pm Headway: 60	Span: 8:20am-5:10pm Headway: 60	Span: 10:20am-5:10pm Headway: 60
16	Span: 8:15am-3:50pm Headway: 60	No Service	No Service
18	Span: 7:20am-5:10pm Headway: 60	Span: 10:20am-5:10pm Headway: 60	Span: 10:20am-5:10pm Headway: 60

[39] Service time spans are approximate.

[40] Routes 2 and 2B are one route with 15-minute departures on the trunk all day on weekdays.

[41] Routes 4 and 4B are one route with 20-minute departures on the trunk.

Route	Weekdays	Saturdays	Sundays
19	Span: 8:20am-5:00pm Headway: 75	No Service	No Service

Fleet

There are 29 vehicles in the CityBus fixed route fleet. They are a mix of 29' and 40' standard heavy-duty transit buses.

TRANSIT CENTERS/HUBS

While some transfer activity between systems occurs at local bus stops, transit centers present the greatest opportunity for coordination between agencies.

Santa Rosa Transit Mall

The Santa Rosa Transit Mall in Downtown Santa Rosa is the largest transfer point in Sonoma County. The Mall is a bi-directional facility located on a transit-only block. This site serves Sonoma County Transit, Santa Rosa CityBus, Golden Gate Transit and Mendocino Transit, and Greyhound, and is adjacent to the Santa Rosa Downtown SMART Station.

The Santa Rosa Transit Mall is served by:

- Santa Rosa CityBus routes 1, 2/2B, 3, 4/4B, 5, 6, 8, 9/9E, 10, 12, 18
- Sonoma County Transit route 20/20x, 22, 30/30x, 34x, 42, 44, 46, 48/48x, 60/60x, 62
- Golden Gate Transit routes 72/72x, 74, 80, 101/101x
- Mendocino Transit Authority routes 65, 95

Figure 43 Santa Rosa Transit Mall

Source: https://srcity.org/2587/Connect-to-SMART

Coddingtown Transit Hub

The Coddingtown Transit Hub connects Sonoma County Transit and Santa Rosa CityBus, and is a long block from the North Santa Rosa SMART station. There is no real-time information there currently. A map showing the relative distance between the bus stop and the SMART station is shown in Figure 9.

The Coddingtown Transit Hub is served by:

- Santa Rosa CityBus routes 1, 6, 7, 10, 15, 19
- Sonoma County Transit routes 44, 48, 57

Figure 44 Santa Rosa CityBus Coddingtown Transit Hub

Source: https://srcity.org/DocumentCenter/View/16989/Large-map-of-transit-connections-to-North-SMART-station?bidId=

Copeland Transit Mall

The Copeland Transit Mall in Petaluma, a one-way, on-street facility on Copeland Street just southeast of East Washington Street, is the primary location within the city for passengers making regional connections between Petaluma Transit, Sonoma County Transit, Golden Gate Transit, and SMART Rail. SMART's Petaluma Downtown Station is around the block on Lakeville Street.

The Copeland Transit Mall is served by:

- Petaluma Transit routes 10, 11, 24, 311
- Sonoma County Transit routes 40, 44, 44X, 48, 48X, 53, 54
- Golden Gate Transit routes 101, 101X

3 FINDINGS

Based on the review of documents, the input of operators and its own understanding of transit operations in the study area, the consultant team has identified the following opportunities for improving transit operations and the overall customer experience of transit passengers travelling within Sonoma County. These opportunities are not presented in any type of hierarchy or order of preference.

OPPORTUNITIES TO STREAMLINE/EXPAND SERVICE AND POTENTIALLY REDUCE COSTS

Conduct a Service Planning Study

There are a number of opportunities to streamline or expand service. The scope of this study did not allow for the deep dive necessary to recommend specific changes, but some ideas that should be included in the study are summarized here. A fare evaluation would be a necessary part of the study for cases of transferring between agencies.

Combine Petaluma Transit Routes 10 and 24, and Sonoma County Transit Routes 40 and 53

Petaluma Transit routes 10 and 24 are two of the lowest performing routes in the Petaluma system.[42] Route 10 serves Petaluma Blvd North and the Outlet Malls and carries an average of 36 passengers each weekday.[43] Route 24 covers the Lakeville Highway, Lakeville Business Park, and the Kaiser Medical offices and carries an average of 50 passengers per weekday.[44]. Buses operate from approximately 6:30am to 7:00pm Monday through Friday. There is no weekend service. Buses run every 15-30 minutes during the commute hours and every 60 minutes the rest of the day.

The geographic coverage of Petaluma Transit's Route 24 is mostly covered by Sonoma County Transit Routes 40 and 53, which connects the City of Sonoma with the Copeland Transit Mall. Service is provided on weekdays from approximately 7:00am to 7:00pm. There are five (5) trips per day, mostly coinciding with commute connections at SMART Rail or regional buses at the Transit Mall. Sonoma County Transit routes 40 and 53 carry a combined average of 30+ passengers per day. All four routes carry a combined load of only 110+ passengers/day.

Combining the four routes into a single route (with optional school bell time route diversion) would offer a single seat ride (with no transfer) from Sonoma to the Kaiser medical offices, the SMART station, downtown Petaluma, and the Outlet Malls, and may also save some operating funds.

It can be difficult to co-mingle local and regional routes such as these, but it is an idea that might be worth exploring given the level of resources the two systems are allocating to the services.[45] It

[42] Source – Petaluma FY 2018 Performance Stats (MS Excel)

[43] Source – Petaluma FY 2018 Performance Stats (MS Excel)

[44] Source – Petaluma FY 2018 Performance Stats (MS Excel)

[45] Complicating factors include Route 40's apparent interline in Sonoma with Sonoma County Transit Route 30 as well as the disparities in total route length and service frequency.

might be possible to re-route the Sonoma County Transit routes from Old Adobe/Frates Road to Stage Gulch Road so that they can directly serve the Kaiser offices and Lakeville Business Park.

Reroute Sonoma County Transit Routes 48 and 54

Routes 48 (Santa Rosa, Rohnert Park, Cotati, Petaluma) and 54 (SMART South County Connector) currently reach the Copeland Transit Mall via Petaluma Blvd North and Washington Street. If there is any slack time in the round-trip cycle time for each route, Sonoma County Transit should consider realigning the two routes so that they enter the Copeland Transit Mall via Petaluma South and D Street, thus providing some additional coverage to the downtown area and eliminating a possible transfer for some passengers. If there is slack time in the schedule then this should have no impact on operating costs.

Alternatively, Sonoma County Transit routes could act as a limited stop/express service in Petaluma. Sonoma County Transit stops currently serve all stops along a corridor served by Petaluma Transit where routes overlap. The nature of the services is a bit different with routes like 40 and 53/54 providing more of a commuter service and routes 10 and 24 more of a local service. This could potentially help to reduce costs for Sonoma County Transit operating on overlapping corridors and possibly allow for adding additional trips, and increase ridership through reduced trip times.

Reroute Golden Gate Transit Route 101

The City of Petaluma should discuss options with Golden Gate Transit for realigning GGT Route 101 off Highway 101 and on to McDowell and Old Redwood Highway after 10pm. The purpose of this adjustment would be to increase the availability of transit service on this corridor later than Petaluma Transit operates now. This change does not create out of direction travel but it might add as much as five minutes to the one-way travel time of Route 101. No additional operating funds are needed, provided there is significant slack time in Route 101's one-way running time. No capital funds are needed either, as Golden Gate Transit can use the existing Sonoma County Transit stops along McDowell and Old Redwood Highway.

Late Evening Service for Petaluma Transit to Meet SMART Trains[46]

Petaluma Transit ends weekday operations at 8:15pm. The Petaluma Transit routes that serve the SMART station miss the last two runs of the evening (8:30pm and 9:06pm). To maximize connectivity with SMART, Petaluma should consider extending its service hours a later into the evening to allow it to meet the last two trains. In lieu of that, it could consider arranging with Sonoma County Transit to operate Route 48 a little later in the evening (Sonoma County Transit Route 44 already operates after the last SMART train departs). Another option would be for Petaluma Transit to consider implementing its own late evening, on-demand, deviated fixed-route service that could meet the trains. This option should be examined for application to all trains, as present services can only be aligned to one travel direction. This may allow better access for SMART and Petaluma Transit riders moving either north or southbound at all times of day. Currently, schedules are timed with northbound trains.

[46] The consultant has created an MS Excel matrix that shows all of the departing and arriving buses for all systems on a typical weekday at the Copeland Transit Mall and SMART station. The matrix is too large to fit in this report but will be made available as a separate file attachment.

CREATE A "UNIFIED BRAND" TRANSIT SYSTEM

Experience has shown that most transit passengers do not really care who runs their transit system. What they do care about is having a system that is fast, frequent, clean, reliable, cost effective, and easy to use. Having multiple operators in one area can create a certain amount of confusion for both new passengers and even some experienced ones, especially if they have to travel between systems. People have to learn about different types of fares, go to different websites for information, or call different numbers. They also have to understand different bus logos and different types of bus stop signs that might convey different types of information.

Regional programs such as Clipper® card and 511.org are good steps at making connecting systems feel seamless to passengers, but more can be done.

Taking the coordination process a step further, one improvement the Sonoma operators might wish to consider is creating what is known as a "Unified Brand" system. This is what public transit operators in the Phoenix, Arizona metro area have done. Rather than having what looks to passengers like multiple systems, the operators have banded together to create the Valley Metro Regional Public Transportation Authority (RPTA), more popularly known as Valley Metro. Valley Metro is divided between Valley Metro Bus, which runs all bus operations, and Valley Metro Rail, which is responsible for light rail operations in the Valley.

Valley Metro is a membership organization. Most services are separately funded and operated by individual cities and suburbs in the greater Phoenix region. These cities have agreed to participate in Valley Metro as a unifying brand name to streamline service and reduce confusion among riders. Each city appoints a representative to the RPTA board of directors, and a chairman, vice chairman, and treasurer are voted on amongst the board members for a one-year term.

The two largest operators of bus service are the city of Phoenix and the Regional Public Transportation Authority (operating multi-city routes and services primarily in Mesa, Chandler, Gilbert, and Tempe). Circulator service in Glendale is operated by the city of Glendale directly, the Scottsdale Trolley circulators are contracted by the city of Scottsdale, and intra-city paratransit service in the cities of Glendale and Peoria are operated by the respective cities directly.

The RPTA operates a customer service, marketing and long-range transit planning operation from its headquarters in downtown Phoenix. These services cover all Valley Metro member cities. Each jurisdiction can determine on its own whether to add or reduce service. To the riding public, wherever you go in the Phoenix Metro area it appears as if there is just one public transit system.

RETHINK THE LAYOUT - COPELAND TRANSIT MALL & SMART RAIL STATION

The Copeland Transit Mall is the primary location in Petaluma for passenger transfers between Petaluma Transit, Sonoma County Transit and SMART Rail. The Mall is a one-way, on-street facility. The walking distance from the middle of the Mall to the middle of the SMART Rail Platform is approximately one quarter mile and might take the average passenger approximately 5 minutes.

As part of the 2015 MTC sponsored SMART Integration Plan, a recommendation was made for creating bus stops closer to the rail platform. A pullout bus bay was created on westbound D St (stops only, no layover) just west of the station. This allows passengers to access the station from

the south end of the platform. A corresponding northside platform stop on eastbound Washington does not appear to exist at this time.

The issue of improving physical connectivity between bus and rail at this location was been discussed for some time. SMART has designed the rail portion of the site in such a manner that auto passengers have a minimal walk between their car and the platform. Passengers arriving by bus have a much longer walk. The proximity of auto parking does make sense, given that most SMART passengers currently arrive by car. However, that might not be the case in the future. In addition, the station area is the central transfer center between bus and rail and between bus and bus, but it is not currently designed in a manner that maximizes efficiency and minimizes passenger inconvenience. Future development of the land between Copeland St/SMART and Washington/D St is intended to improve bike and pedestrian connectivity between the two facilities in addition to aiding bus movements throughout the area. The one-way entrance into the Mall severely limits options for route design for Petaluma Transit, Sonoma County Transit, and Golden Gate Transit. A rethinking of the entire site could create opportunities for reducing operating costs and improving the passenger experience.

TIMETABLE INFORMATION FOR CONNECTIONS WITH SMART IN DOWNTOWN SANTA ROSA

The transit timetables for services connecting with SMART in Petaluma provide the user with detailed information showing the schedule connectivity between the services. That information is less readily available for connecting services at the Downtown Santa Rosa SMART station and the other SMART Stations in Sonoma County The operators should consider rethinking the timetables and schedule brochures and include specific time points to highlight the connections between bus and rail.

CONSOLIDATING PLANNING ACTIVITIES

Transit in Sonoma County operates in a regional environment. The systems overlap substantially even though there is little current coordination. A regional Short Range Transit Plan, required by MTC, in cooperation with Region IX of the Federal Transit Administration[47], would force the systems to consider issues of integration and overlapping services. Isolated short range transit plans are not obligated to consider the issues of overlap and integration.

Transit agencies operating in Sonoma County do not need to wait for a coordinated planning effort to begin discussing how a more coordinated approach to day-to-day service evaluation and planning could occur.

CONSOLIDATING PETALUMA TRANSIT WITH SONOMA COUNTY TRANSIT AND OTHER OPPORTUNITIES

Many regions around the country are currently taking a fresh look at consolidating certain small city systems with larger regional systems. Sometimes the goal of these efforts is reducing operating costs, sometimes it is about improving customer experience and sometimes it is about both. Over the past decade, Sonoma County Transit has successfully merged with several smaller

[47] "Short-Range Transit Plan Guidelines." https://mtc.ca.gov/tools-and-resources/digital-library/short-range-transit-plan-guidelines (June 2019)

systems like Sebastopol, Cloverdale and Healdsburg. These mergers do provide some economies of scale and allow the cities to turn their attention to other needs.

At the City's request in late 2016, Sonoma County Transit proposed operating Petaluma Transit's routes as part of the Sonoma County Transit route network. With the exception of transferring a few of Petaluma's newest buses, nothing else was needed. However, due to recent investment of FTA funds in Petaluma's operating facility, which would need to be paid back to FTA, and Petaluma Transit's contribution of overhead to the City and factors related to concerns about loss of control and service to city residents, the City chose to not pursue any changes. Maintaining local control of its transit system was also important to the City at the time. It might be useful for Petaluma and Sonoma County Transit to renew their discussion about potentially consolidating the two systems.

Equally, there may be opportunities for limited consolidation of operations between Sonoma County Transit and Santa Rosa CityBus. This sort of consolidation would fall short of consolidating the agencies, but may provide better and more efficient service as a result. For example, the Mendocino corridor in Santa Rosa is extensively traveled by Sonoma County Transit and Santa Rosa CityBus, at peak times there are buses moving every six minutes in one direction on the corridor. Data was not available for this study to extensively consider options for consolidating these services as travel demand is complex and overlapping. But the amount of service compared to the ridership suggest this is an appropriate investigation that has not been accomplished. This could yield options such as a coordinated shared corridor operation where the operation, schedules, fares, information, etc. are offered to riders in a unified manner with Sonoma County Transit and Santa Rosa CityBus continuing operations. Another alternative outcome might be an agreement that one of the operators takes on the entirety of service inside and outside Santa Rosa and is compensated by the other operator for an appropriate share of the cost. This requires much more in-depth study to understand the specific travel patterns in the corridor and that study should have some degree of priority as the level of transit resources dedicated to the corridor is unmatched with demand in the corridor, therefore offering a very real opportunity to achieve greater efficiency.

ALTERNATIVE SERVICE DELIVERY MODELS: TRANSPORTATION NETWORK COMPANIES AND ON-DEMAND TRANSIT

Transportation Network Companies are being used to increased transportation access in low-density areas where public transit is needed but ridership levels on a fixed route bus do not meet benchmarks. The TNCs or other demand responsive transit options should be added to this report as a tool to be discussed among the operators.

PARATRANSIT MANAGEMENT AND OPERATIONS

January 2019

1 OVERVIEW

Public transit operators in Sonoma County are required by the Americans with Disabilities Act (ADA) to provide complementary paratransit services for people who, due to a disability, are unable to use fixed-route buses for some or all their trips. The paratransit setting in Sonoma County is somewhat complex. It involves many participants and many interrelated technical elements.

Paratransit service is an important opportunity for review in Sonoma County. Because the service is available to a target population with very specialized needs, factors in service delivery can have dramatic impacts at a personal level. And yet, because paratransit service tends to be quite expensive on a per trip basis, it is often provided within the context of the minimum federal regulations. This section will examine opportunities to maximize overall service and service coordination among the Sonoma County operators.

Statistical data regarding the performance of all paratransit operations was provided by SCTA, with additional statistical and managerial information provided by the transit operators. Interviews were held with key representatives from each jurisdiction to gather more information on all aspects of the study which included paratransit. In certain instances, follow up was conducted to clarify issues or statistical data.

Because ADA paratransit is both a complex issue, and one subject to rather specific federal regulation, an overview of key federal requirements for the provision of paratransit service is included here. It provides the regulatory framework for this service and suggests areas of possible integration.

2 BACKGROUND

THE ADA AND PUBLIC TRANSPORTATION

Since the passage of the ADA in 1990, all communities that provide fixed-route public transportation have been required to provide complementary paratransit service for individuals who, because of a disability, are prevented from using fixed-route buses or trains all or some of the time. (Complementary service requirements do not apply to commuter bus, commuter rail, or intercity rail systems.)

There are three categories of eligibility as defined in the ADA:

4. Any individual, who as a result of a physical or mental impairment and without the assistance of another individual (except the operator of a wheelchair lift or other boarding device) is unable to board, ride, or disembark from any vehicle in the system that is readily accessible to and usable by individuals with disabilities
5. Any individual with a disability who needs the assistance of a wheelchair lift or other boarding assistance device and is able, with such assistance, to board, ride and disembark from any vehicle that is readily accessible to, and usable by, individuals with disabilities if the individual wants to travel on a route on the system during the hours of operation of the system at a time, or within a reasonable period of such time, when such a vehicle is not being used to provide designated public transportation on the route.
6. Any individual with a disability who has a specific impairment-related condition that prevents such individual from traveling to a boarding location or from a disembarking location on such system.

    (i) Only a specific impairment-related condition which prevents the individual from traveling to a boarding location or from a disembarking location is a basis for eligibility under this paragraph. A condition which makes traveling to a boarding location or from a disembarking location more difficult for a person with a specific impairment-related condition than for an individual who does not have the condition, but does not prevent the travel, is not a basis for eligibility under this paragraph.

    (ii) Architectural barriers not under the control of the public entity providing fixed-route service and environmental barriers (e.g., distance, terrain, weather) do not, standing alone, form a basis for eligibility under this paragraph. The interaction of such barriers with an individual's specific impairment-related condition may form a basis for eligibility under this paragraph, if the effect is to prevent the individual from traveling to a boarding location or from a disembarking location.

The ADA states clearly that paratransit is a safety net service and is not intended for everyone. Indeed, the goal of the ADA has been to ensure access to fixed-route transportation for persons with disabilities, not to establish a separate transportation system. However, it was also recognized that some individuals, because of the effects of their disabilities, are prevented from using fixed-route service all or some of the time. For these consumers, complementary paratransit is available.

In order to determine the relationship between the ADA regulations and the County's current status, it is important to understand some of the federal regulations associated with providing service to persons with disabilities. The following pages of the plan address the Federal Transit Administration (FTA) Americans with Disabilities Act (ADA) Regulations, Guidance, and Procedures under Part 37, Subpart F.

The sections of the FTA requirements shown on the following pages are meant to add clarity for the reader who may not be familiar with ADA Regulations. Additionally, where necessary, definitions or clarifications developed by the FTA have been inserted after the regulations to assist with understanding the intent of the guidance. These clarifications offer interpretations of some of the technical issues.

For a complete list of ADA Regulations, Guidance, and Procedures please visit:

https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/part-37-transportation-services-individuals-disabilities

FTA ADA REGULATIONS, GUIDANCE, AND PROCEDURES, SUBPART F: PARATRANSIT AS A COMPLEMENT TO FIXED ROUTE SERVICE

Section 37.121 Requirement for comparable complementary paratransit service.

Except as provided in paragraph (c) of this section, each public entity operating a fixed-route system shall provide paratransit or other special service to individuals with disabilities that is comparable to the level of service provided to individuals without disabilities who use the fixed-route system.

To be deemed comparable to fixed-route service, a complementary paratransit system shall meet the requirements of Sec. 37.123-37.133 of this subpart. The requirement to comply with Sec. 37.131 may be modified in accordance with the provisions of this subpart relating to undue financial burden.

Requirements for complementary paratransit do not apply to commuter bus, commuter rail, or intercity rail systems.

Definition:
Section 37.121 sets forth the basic requirement that all public entities who operate a fixed-route system have to provide paratransit service that is both comparable and complementary to the fixed-route service.

"Complementary" means service that acts as a safety net for individuals with disabilities who cannot use the fixed-route system. "Comparable" means service criteria of this subpart.

Paratransit may be provided by a variety of modes. Publicly operated dial-a-ride vans, service contracted out to a private paratransit provider, user-side subsidy programs, or any combinations of these and other approaches is acceptable. Entities who find it necessary to apply for an undue financial burden waiver should be aware that one of the factors FTA will examine in evaluating waiver requests is efficiencies the provider could realize in its paratransit service. Therefore, it is important for entities in this situation to use the most economical and efficient methods of providing paratransit they can devise.

Section 37.129 Types of Service.

Except as provided in this section, complementary paratransit service for ADA paratransit eligible persons shall be origin-to-destination service.

> Complementary paratransit service for ADA paratransit eligible persons described in Sec. 37.123(e)(2) of this part may also be provided by on-call bus service or paratransit feeder service to an accessible fixed-route, where such service enables the individual to use the fixed-route bus system for his or her trip.

Complementary paratransit service for ADA eligible persons described in Sec. 37.123(e) (3) of this part also may be provided by paratransit feeder service to and/or from an accessible fixed route.

Definition:
Section 137.29 states that the basic mode of service for complementary paratransit is demand responsive, origin-to-destination service.

Section 37.131 Service criteria for complementary paratransit.

The following service criteria apply to complementary paratransit required by Section. 37.121 of this part.

(a) **Service Area.** (1) Bus. (i) The entity shall provide complementary paratransit service to origins and destinations within corridors with a width of three-fourths of a mile on each side of each fixed-route. The corridor shall include an area with a three-fourths of a mile radius at the ends of each fixed-route.

(ii) Within the core service area, the entity also shall provide service to small areas not inside any of the corridors but which are surrounded by corridors.

(iii) Outside the core service area, the entity may designate corridors with widths from three-fourths of a mile up to one and one half miles on each side of a fixed-route, based on local circumstances.

(iv) For purposes of this paragraph, the core service area is that area in which corridors with a width of three-fourths of a mile on each side of each fixed-route merge together such that, with few and small exceptions, all origins and destinations within the area would be served.

Definition:

The basic bus system service area is a corridor with a width of three-quarter mile on each side of the fixed-route. At the end of a route there is a semicircular cap on the corridor, consisting of a three-quarter mile radius from the end point of the route to the parallel sides of the corridor.

Complementary paratransit must provide service to any origin or destination point within a corridor fitting this description around any route in the bus system.

(b) **Response time.** The entity shall schedule and provide paratransit service to any ADA paratransit eligible person at any requested time on a particular day in response to a request for service made the previous day. Reservations may be taken by reservation agents or by mechanical means

(1) The entity shall make reservation service available during at least all normal business hours of the entity's administrative offices, as well as during times, comparable to normal business hours, on a day when the entity's offices are not open before a service day.

(2) The entity may negotiate pickup times with the individual, but the entity shall not require an ADA paratransit eligible individual to schedule a trip to begin more than one hour before or after the individual's desired departure time.

(3) The entity may use real-time scheduling in providing complementary paratransit service.

(4) The entity may permit advance reservations to be made up to 14 days in advance of an ADA paratransit eligible individual's desired trips. When an entity proposes to change its reservations system, it shall comply with the public participation requirements equivalent to those of Sec. 37.137 (b) and (c).

Clarification for b, 2:
Though an entity may negotiate with a rider to adjust pick-up and return trip times to make scheduling more efficient, the entity cannot insist on scheduling a trip more than one hour earlier or later than the individual desires to travel.

(c) **Fares.** The fare for a trip charged to an ADA paratransit eligible user of the complementary paratransit service shall not exceed twice the fare that would be charged to an individual paying full fare (i.e., without regard to discounts) for a trip of similar length, at a similar time of day, on the entity's fixed-route system.

(1) In calculating the full fare that would be paid by an individual using the fixed-route system, the entity may include transfer and premium charges applicable to a trip of similar length, at a similar time of day, on the fixed-route system.

(2) The fares for individuals accompanying ADA paratransit eligible individuals, who are provided service under Sec. 37.123 (f) of this part, shall be the same as for the ADA paratransit eligible individuals they are accompanying.

(3) A personal care attendant shall not be charged for complementary paratransit service.

(4) The entity may charge a fare higher than otherwise permitted by this paragraph to a social service agency or other organization for agency trips (i.e., trips guaranteed to the organization).

(d) **Trip purpose restrictions.** The entity shall not impose restrictions or priorities based on trip purpose.

(e) **Hours and days of service.** The complementary paratransit service shall be available throughout the same hours and days as the entity's fixed-route service.

(f) **Capacity constraints.** The entity shall not limit the availability of complementary paratransit service to ADA paratransit eligible individuals by any of the following:

- Restrictions on the number of trips an individual will be provided;

(2) Waiting lists for access to the service; or

(3) Any operational pattern or practice that significantly limits the availability of service to ADA paratransit eligible persons.

(i) Such patterns or practices include, but are not limited to, the following:

(A) Substantial numbers of significantly untimely pickups for initial or return trips;

(B) Substantial numbers of trip denials or missed trips;

(C) Substantial numbers of trips with excessive trip lengths.

(ii) Operational problems attributable to causes beyond the control of the entity (including, but not limited to, weather or traffic conditions affecting all vehicular traffic that were not anticipated at the time a trip was scheduled) shall not be a basis for determining that such a pattern or practice exists.

Additional service. Public entities may provide complementary paratransit service to ADA paratransit eligible individuals exceeding that provided for in this section. However, only the cost of service provided for in this section may be considered in a public entity's request for an undue financial burden waiver under Sec. Sec. 37.151-37.155 of this part.

Clarification for f, 3, C:
Since paratransit is a shared ride service, paratransit rides between Point A and Point B will usually take longer and involve more intermediate stops than a taxi ride between the same two points. However, when the number of intermediate stops and the total trip time for a given passenger grows so large as to make use of the system prohibitively inconvenient, then this provision would be triggered.

Section 37.133 Subscription service.

(a) This part does not prohibit the use of subscription service by public entities as part of a complementary paratransit system, subject to the limitations in this section.

(b) Subscription service may not absorb more than fifty percent of the number of trips available at a given time of day, unless there is non-subscription capacity.

(c) Notwithstanding any other provision of this part, the entity may establish waiting lists or other capacity constraints and trip purpose restrictions or priorities for participation in the subscription service only.

Definition:
As part of its paratransit service, an entity may include a subscription service component. However, at any given time of day this component may not absorb more than 50% of available capacity on the total system. For example, if at 8 a.m., the system can provide 400 trips, no more than 200 of these trips can be subscription.

3 OVERVIEW OF EXISTING PARATRANSIT SERVICES

In compliance with the federal regulations cited above, each of the Sonoma County transit operators provides paratransit service. While the regulations are relatively specific regarding service levels, fares, etc., each operator has substantial latitude as to how exactly it provides compliant service. Below is a brief description of the approach currently taken by each operator.

SONOMA COUNTY TRANSIT

Sonoma County Transit fulfills its ADA paratransit obligation through a contract with the Volunteer Center of Sonoma County. The service agreement is negotiated annually between Sonoma County Transit and the Volunteer Center. Service has been contracted by the County and the Volunteer Center since 1980, and the most recent agreement went into effect on July 1, 2018.

The annual contract until 2002 was for general dial-a-ride; however, the current contract provides for ADA service only. The agreement includes the following major elements:

- The base budget for FY2018-19 is $2,276,382 plus an available 2.5% contingency for service expansion. Payment is based on a fixed fee of $50,430 per month and a variable rate of $24.48 per hour, plus an estimated $205,000 for liability insurance.
- Vehicle parking is provided at Sonoma County Transit, 355 W. Robles, Santa Rosa.
- Sonoma County provides:
  - All vehicles necessary for service
  - All fuel and maintenance services for the fleet
  - A computerized scheduling and dispatch system (TripSpark from Trapeze)

The contract requires the Volunteer Center to coordinate with other operators, particularly in relation to transfers between systems. The County has agreed to facilitate such coordination.

The Sonoma County Transit staff fulfills the ADA requirement of determination of eligibility by using a paper application process. A database of eligible riders is then maintained by the County. The County also participates in the Regional Eligibility Database (RED).

SANTA ROSA CITYBUS

The City of Santa Rosa fulfills its ADA obligation through a contract with MV Transportation. The City provides 11 cutaway buses, one minivan, and one cutaway for the Oakmont service, for operation by the Contractor.

The current contract went into effect July 1, 2015, and was amended effective July 1, 2018 to allow for substantial increases in driver, dispatch, and maintenance employee wages and benefits. The agreement includes the following major elements:

- ADA paratransit and route deviation service in Oakmont.

- ADA service cost increased from $1,199,368 (FY2018) to $1,372,584 (FY2019), a difference of $173,216, or 14.4%. FY2019 payment is based upon a fixed fee of $39,969 per month and a variable rate of $42.52 per hour.
- The Contractor provides the operating facility for ADA and Oakmont service.
- The Contractor provides the scheduling software to manage the operation. The City has the right to approve the scheduling software system, which is currently Trapeze.
- The Contractor provides all maintenance services and is responsible for the cost of all parts and materials.
- The City provides fuel for the vehicles.
- Base operator wage rate may be no lower than $15.50. The FY2019 base wage is $17.45 and the FY2020 base wage is $18.50.

The contract requires MV to coordinate with other operators, particularly in relation to transfers between systems. The City has agreed to facilitate such coordination.

A City-managed contract with CARE Evaluators fulfills the ADA required determination of eligibility through an in-person eligibility interview process and the maintenance of an eligible rider database. Both CARE and the City update the Regional Eligibility Database (RED).

PETALUMA TRANSIT

Petaluma Transit fulfills its ADA paratransit obligation through a contract with MV Transportation. The current contract went into effect on July 1, 2018, with a base term ending June 30, 2022 and providing for extensions through June 30, 2025.

The agreement includes the following major elements:

- Paratransit operations are conducted from the City of Petaluma Transit Maintenance and Operations facility at 555 N. McDowell Blvd., Petaluma.
- The City provides all vehicles (9), parts fuel, and fare media required for the operation.
- The Contractor is responsible for providing Trapeze PASS scheduling software and supporting technology such as Mobile Data Terminals (MDT's).
- The Contractor pays for all revenue vehicle repairs.

The contract requires MV Transportation to coordinate with other operators, particularly in relation to transfers between systems. The City has agreed to facilitate such coordination.

Like the City of Santa Rosa, the City of Petaluma fulfills ADA eligibility requirement obligations using an in-person eligibility interview process. The interviews are conducted by CARE Evaluators, who also maintains an eligible riders database. Both CARE and the City update the Regional Eligibility Database (RED).

PARATRANSIT OPERATOR OPERATIONS AND POLICY COMPARISON

Figure 1 provides a summary of key operating or policy issues of each operator.

Figure 45 Paratransit Operations and Policy Comparison

Measure	Sonoma County	City of Santa Rosa	Petaluma
Contractor	Volunteer Center of Sonoma County	MV Transportation	MV Transportation
Contract Term	Annual contract; renegotiated annually	Started 2015 with option years negotiated effective July1, 2018	Started July 1, 2018; Four-year base; three option years
Scheduling Window	7 days to 24 hours in advance	7 days to 24 hours in advance	7 days to 24 hours in advance
Scheduling System Software			
Vendor	Trapeze	Trapeze	Trapeze Pass
Annual Cost	$20,000	$29,964	$22,644 (leased through MV)
Transfers			
Process	Established transfer points; Clients are dropped off	Established transfer points; Clients are dropped off	Established transfer points; Clients are dropped off
Bus-to-Bus	Only if necessary	No	No
ADA Eligibility			
Process	Paper application	In-person	In-person
Determination by	County Staff	CARE Evaluators	CARE Evaluators
Appeals	Handled by Jurisdiction	Handled by Jurisdiction	Handled by Jurisdiction

PARATRANSIT OPERATOR METRIC COMPARISON

Figure 2 provides a comparison of key statistical data among the operators for FY2015-2016 (NTD Year 2016). Data from 2017 was not used to due irregular ridership during and after the Sonoma wildfires.

Figure 2 Paratransit Metrics (2016)

Measure	Sonoma County	City of Santa Rosa	Petaluma
Annual Trips	51,783	44,930	25,282
Vehicles Operated in Maximum Service	25	10	7
Average Trip Length (miles)	12.52	5.42	3.25
Annual Revenue Hours	34,580	18,117	8,389
Average Trips per Revenue Hour	1.5	2.5	3.0
Operating Expense per Trip	$51.10	$26.17	$32.11
Operating Expense per Revenue Hour	$76.57	$64.91	$96.77

Source: National Transit Database (NTD) 2016

Figure 3 provides a comparison of actual or projected operating expenses among the operators for 2016 through 2019.

Figure 3 Paratransit Operating Expenses

Budget Year	Sonoma County	City of Santa Rosa	Petaluma	Total
2016 (NTD)	$2,646,287	$1,175,976	$811,826	$4,634,089
2017 (NTD)	$3,022,137	$1,282,815	$906,039 $908,255	$5,210,991
2018 (Actual)	$3,277,407	$1,219,000	$897,866	$5,430,316
2019 (Budget)	$3,536,030	$1,413,000	$928,651	$5,877,681

Source: NTD and Agency-provided data

4 ANALYSIS OF DEMAND PATTERNS

Current paratransit utilization can be an indicator of the potential for greater service integration.

The project team began a review of service integration potential by obtaining travel pattern information from each of the three participating agencies. Each was asked to provide data regarding the top 10 destinations for each of their services, measured by average trips per day to each location. A brief summary of findings is provided below.

- Trip volumes to major destinations using Sonoma County Transit and the City of Santa Rosa's services are very similar; Petaluma is a much smaller system with lower volumes to its major destinations.
- Six of Santa Rosa's top destinations are shared with Sonoma County Transit.
- Four of Petaluma's top destinations are shared with Sonoma County Transit; two top Petaluma destinations are shared with Santa Rosa.
- The three most common destination types among the operators are: adult day programs (many for developmentally disabled), dialysis clinics, and Kaiser Hospital.
- The junior college is the next most popular destination.

Research also provided details regarding transferring between operators, discussed in greater detail below. While the focus of the study and this analysis is on Petaluma Transit, Santa Rosa CityBus, and Sonoma County Transit,, some notable rider transfers occur between Sonoma operators and Golden Gate Transit. The Golden Gate service is operated by Marin County vendor Whistlestop Wheels.

Whistlestop passenger transfers are handled much like those between the Sonoma operators: passengers are taken to a central point such as the transit center or the junior college and disembark to wait for the other operator. However, because Golden Gate operates longer hours than is typical of the Sonoma operators, the protocol is to transport riders directly to their destinations throughout Santa Rosa if Santa Rosa CityBus is no longer operating. This protocol suggests the possibility of direct service across jurisdictions on a larger scale.

Figure 4 Top Paratransit Destinations (monthly averages)

Destination Address	City	Destination Name	Santa Rosa CityBus	Sonoma County Transit	Petaluma Transit
Bicentennial Way; Corporate Center Pkwy	Santa Rosa	Kaiser Permanente	20	5	
Airway Drive	Santa Rosa	Redwood Empire (REI)	18	12	
Corporate Center Pkwy	Santa Rosa	Becoming Independent	16	6	
1501 Mendocino Ave	Santa Rosa	Santa Rosa Junior College	16	11	
Corporate Center Pkwy at Circadian Way	Santa Rosa	Satellite Dialysis	12		
394 Tesconi Circle	Santa Rosa	Alchemia School Adult Day Programs	8	12	
422 Beaver Street	Santa Rosa	Dungarvin Adult Day Programs	8		

Destination Address	City	Destination Name	Santa Rosa CityBus	Sonoma County Transit	Petaluma Transit
Occidental Road	Santa Rosa	Earl Baum Training Center	8	6	
649 Martin Ave	Rohnert Park	North Bay Industries Rehabilitation Center		11	
625 Center St	Healdsburg	Becoming Independent Social Services		6	
715, 719 South Point Blvd	Petaluma	Dialysis Clinic		5	4
1301 Rand St	Petaluma	OADS (Old Adobe Developmental Services)			5
Airway Ct	Santa Rosa	Catholic Charities		4	
W Napa St	Sonoma	Becoming Independent Social Services		4	
Commerce Blvd	Rohnert Park	Dialysis		3	
Old Redwood Hwy	Santa Rosa	Kaiser Stein medical offices		3	
111 Kentucky St	Petaluma	Alchemia School Adult Day programs			3
3900 Lakeville Hwy	Petaluma	Kaiser Hospital			2
300 Douglas St	Petaluma	Empres Senior Care Facility			2
1179 N McDowell Blvd	Petaluma	Petaluma Health Center			2
333 N McDowell Blvd	Petaluma	Vintage Chateau Senior Living			2
320 N McDowell Blvd	Petaluma	Petaluma Community Center			1
101 Monroe St	Petaluma	Golden Senior Living Center			1
211 Novak Dr	Petaluma	Senior Center Café			1
389 S McDowell Blvd	Petaluma	Safeway Grocery			1
1000 Petaluma Blvd N	Petaluma	Lucky Grocery			1
945 Petaluma Blvd N	Petaluma	Blvd Apartments			1
25 Howard St	Petaluma	Senior Day Center			1

5 FINDINGS

While paratransit is but one of the elements of this integration study, it is a functional element which may offer potential opportunities even if other components of integration do not come to fruition. ADA paratransit is a service component that all operators have in common. They are all required to provide this service because each jurisdiction provides fixed route transit service. The manner in which they provide service, and policies related to this service, vary among the operators.

A very important service delivery approach common to all operators is contracting for paratransit service. This common approach could provide an opportunity for contract integration. Transit operators in other locations have used joint procurement to obtain efficiencies based upon the larger size of the contract, consolidated management, and other forms of savings. Contract consolidation could have similar benefits for Sonoma County's transit operators.

Contracted Services

In Sonoma County, the existence of contracted services is one of the few commonalities among operators, and the nature of each contract varies greatly among jurisdictions. The cities of Santa Rosa and Petaluma both contract with MV Transportation--a large, national firm headquartered in Dallas, and a major nationwide paratransit contractor.

Petaluma People Services Center (PPSC) also provides a free, volunteer driver program throughout the City of Petaluma through their iRide program, and it operates independently of the City-contracted service through MV Transportation. Prior to 2007, PPSC was the holder of this contract and operated paratransit service on behalf of the City of Petaluma. A small number of riders use the two services interchangeably depending upon which agency best fulfills their trip needs. PPSC has at least one fully ADA accessible vehicle although most of their vehicles do not have ADA accessibility.

The County of Sonoma contracts with the Volunteer Center of Sonoma County--a nonprofit based in Santa Rosa--for its ADA paratransit service. The nonprofit provides a number of local programs in addition to transportation. A unique feature of the Volunteer Center contract is that a portion of the service is provided by volunteer drivers, thus reducing costs when compared to utilizing a full staff of paid drivers. According to the County, this arrangement has worked well both for service quality and for cost control.

The paratransit contracts are also on very different time frames. The City of Santa Rosa contract with MV Transportation began in 2015. Its base term was three years with two option years available beginning in June 2018. The City did renegotiate certain terms in agreeing to exercise the first option year of the agreement through FY2019.

The City of Petaluma entered into a new contract with MV Transportation in July 2018, with a four year base term and three option years. Sonoma County Transit has a year-to-year agreement with the Volunteer Center. While renegotiated each year, the County has contracted with the Volunteer Center for more than twenty years.

Contract Details

Contract details vary substantially as well. For example, the City of Santa Rosa requires that the contractor provide its own operating facility. Both the City of Petaluma and Sonoma County

Transit provide vehicle storage and maintenance at operator-owned facilities for their contractors.

All operators provide their contractors with fuel for revenue vehicles. However, MV Transportation's contract with the City of Santa Rosa requires that the contractor provide all maintenance services on the fleet, which includes providing maintenance personnel and all parts and materials. The City of Petaluma requires that MV Transportation provide all maintenance personnel, but the City pays directly for all parts and materials used in maintaining the fleet. Sonoma County Transit performs all maintenance on the paratransit fleet through its operations contractor, Transdev, and pays all costs associated with parts and materials.

Service delivery also varies according to each contract. All three operators utilize Trapeze scheduling software as the basis for deploying service. However, Sonoma County Transit owns the software and makes it available to the contractor, who is responsible for its application. Sonoma County Transit pays the fees associated with use of the system. The cities of Santa Rosa and Petaluma utilize the same basic software but each obtains it through agreements with their contractors who own the systems. The contracts are generally clear that all data in the system belong to the jurisdiction (a necessary distinction in case of contractor change) but the software systems themselves belong to the contractors.

ADA Eligibility

The ADA requires transit operators to establish procedures to determine who is eligible to utilize paratransit service. ADA paratransit service is intended to provide an alternative form of transportation to those who cannot use fixed route service (see ADA guidelines above). Because fixed route vehicles and service features can accommodate persons with varying abilities, paratransit services are typically limited to those who cannot ride the fixed route buses. The ADA allows for a wide range of eligibility approaches.

Each of the Sonoma operators has an eligibility process. Santa Rosa and Petaluma have utilized an in-person process since 2012. An in-person process generally requires that an applicant for ADA paratransit service come to a location where a trained evaluator assesses the individual's ability to use fixed route transit. The evaluation concludes with a determination that can include full eligibly to utilize paratransit service or a more limited conditional eligibility where paratransit is intended for those trips that cannot be made by the applicant on fixed route service.

Sonoma County Transit utilizes a paper application process where the applicant does not have to come to a location for a personal evaluation but instead typically relies on a medical professional to document the disability and the applicant's ability to ride transit. While an in-person process is more costly than a paper process, many transit agencies argue that its increased accuracy is worth the cost in screening out individuals who can ride the less-expensive fixed route service.

Both Santa Rosa and Petaluma contract with CARE Evaluators to provide in-person eligibility. CARE Evaluators is a national firm that specializes in paratransit and ergonomic evaluations. The City of Santa Rosa entered into its third agreement year with CARE on July 1, 2018.

All three Sonoma County transit operators used a joint procurement process to select CARE; however, once CARE was chosen as the contractor, the cities of Santa Rosa and Petaluma entered into separate contracts with the contractor to provide the service. Sonoma County Transit chose not to enter into a contract for in-person eligibility and continues to process applications in-house using a paper application process. Santa Rosa and Petaluma's existing contracts with CARE

expire in June 2019; they are currently in discussions to conduct a joint procurement for these services going forward.

Operating Cost

Operating cost is also an important factor when comparing paratransit services. Substantial variation exists among operator key cost indicators. Using NTD data as the source and 2016 as the baseline, an operating costs comparison reveals some important facts.

First, with cost per revenue hour as a key measure, the City of Petaluma is the highest cost at $96.77 per hour. It is followed by Sonoma County Transit at $76.57 and Santa Rosa at $64.91.

Sonoma County Transit experiences the highest average cost per trip at $51.10, followed by Petaluma at $32.11. The City of Santa Rosa has the lowest cost per trip at $26.17. However, it is important to understand the trip characteristics in order to properly assess costs. Trips provided by Sonoma County Transit average 12.52 miles in length, which is very different from the cities of Santa Rosa and Petaluma, which average 5.42 and 3.25 miles, respectively.

Because Sonoma County Transit must provide service throughout the County--where many trips are long, covering many miles of rural territory--the cost per trip is higher when compared to much shorter trips in the cities. Sonoma County Transit provides approximately 15% more trips than the City of Santa Rosa, but operates nearly double the number of hours due to its longer average trip length.

Operating Policy

Operating policy differences may contribute to some of the differences in measures among operators. For example, the cities of Santa Rosa and Petaluma policies allow anyone who is ADA paratransit eligible to ride fixed-route service for free. City officials speculate that this policy encourages disabled individuals to use fixed-route service, which is much less costly than ADA paratransit. Sonoma County Transit does not provide free fixed-route service to ADA eligible individuals. Instead, it follows the allowable federal policy of offering reduced-cost rides.

An area of similarity is the treatment of rider transfer. Transfers between paratransit systems are account for less than 1% of total paratransit trips. Among factors that may currently deter such activity is the requirement that transfer trips must be scheduled 48 hours in advance, while non-transfer trips can be scheduled the day before. This is a significant difference in service quality.

All operators facilitate transfers between paratransit systems by coordinating dispatch services in response to ride requests that require a transfer. Transfers are allowed between operators when arrangements are made 48 hours in advance. This long lead time is a drawback when compared with regular non-transfer service, which can be scheduled up to 24 hours in advance (or the evening before service).

Sonoma County Transit averages 18 transfers per month with Santa Rosa, Petaluma, and Whistlestop Wheels in Marin County. The staff time and costs to manage these transfers should be low. More important is the question of whether there is a more passenger-friendly transfer protocol or policy that would meaningfully increase the number of transfers requested.

Reviews of the paratransit rider policies indicate differences among all three agencies, including areas such as boarding policies, fare policy, and pickup time windows. Streamlining service among agencies would require a comprehensive review of the different polices.

6 AREAS PROPOSED FOR FURTHER EVALUATION

Improved coordination of paratransit services could involve a number of steps along a continuum of options. Currently, the three operators in Sonoma County provide their own ADA paratransit services with procedures in place to facilitate coordination during transfers between the systems.

INTERSYSTEM TRANSFERS

Further analysis of transfers may indicate that an agreement to offer trips into other jurisdictions without a transfer may prove useful. Such a technical improvement in service delivery could be a substantial enhancement for current riders. It also may encourage more people to use paratransit to travel across jurisdiction lines. If implemented, the increase in staff time would likely happen gradually.

Further, the current approach among the operators is for people to disembark at transfer points without direct bus-to-bus connections. This means that a transferring rider must wait at the transfer point for the other agency vehicle to arrive. This can also be a deterrent to paratransit use for cross jurisdiction trips, because it can be difficult for many people to wait for the second bus. Some transit agencies in other jurisdictions require that all transfers be direct bus-to-bus, meaning that the first vehicle must wait at the transfer point for the second vehicle to arrive. While perhaps better for a transferring passenger, the wait can cause other scheduling problems for the first vehicle. However, improving transfer connections offers a theoretically easy opportunity for operators to coordinate services.

Transfers between paratransit systems are relatively few. Sonoma County Transit averages only 18 transfers per month between Petaluma, Santa Rosa, and Golden Gate (Whistlestop Wheels), accounting for less than 1% of total trips.

Proposals

Elimination of transfers

Taking into account the number of shared high volume destinations by the three operators, policy refinements should be considered that would include a thorough examination of transfers between providers (including Golden Gate Transit's contract with Whistlestop Wheels), instead providing for complete origin to destination service across jurisdiction boundaries.

TNC use or Taxi voucher program

Transportation Network Companies (TNCs) such as Uber and Lyft can provide increased transportation access for people with disabilities. A rideshare program like a TNC can supplement paratransit vehicles while also making sure that incentives control for over-use.

Microtransit

Microtransit is also a potential tool to supplement paratransit services. Currently the City of Santa Rosa operates a deviated fixed route (microtransit) in Oakmont. There may be other applications where a low volume fixed route can be replaced with this type of service.

JOINT PROCUREMENT

Moving up the continuum of coordination, options become more challenging. While all three transit operators do contract their services out to vendors, the substantial variation in contract terms introduces coordination challenges. Some other communities have chosen to use a joint procurement process to better integrate paratransit service delivery. This may seem an obvious opportunity for coordination and possibly cost efficiency.

The current contracting environment in Sonoma County presents challenges to accomplishing joint procurement. Length and timing of contracts, vehicle maintenance approaches, and facility operation requirements vary among the operators. The County of Sonoma's use of the Volunteer Center introduces volunteer drivers for a portion of the service, which is not done by any other jurisdiction. Figure 1.1 also outlines these substantial differences between contract approaches.

Despite these substantial differences in operating protocols or contract details, coordination of paratransit service through a joint procurement could still be accomplished. In the past, the City of Santa Rosa and Sonoma County Transit jointly contracted with the Volunteer Center for paratransit service delivery, indicating that coordination (or consolidation) of service delivery could be possible. The City of Santa Rosa and Sonoma County Transit decided for a number of reasons to separately procure vendors. Returning to a joint procurement, or adding Petaluma to a joint process, could be accomplished if all jurisdictions agreed in principle to the outcome of service delivery coordination. A joint procurement would require the operators to negotiate adjustments to current agreements. Factors that would have to be addressed to accomplish a joint procurement include the following:

- **Contract term adjustment:** The term of existing contracts would have to be adjusted to synchronize the operators to the same procurement schedule. Because Sonoma County Transit contracts with the Volunteer Center for only one year at a time, their contract would not require adjustment in order to coordinate. The City of Santa Rosa recently executed an option for the next two years of its agreement and will be seeking a new contract start date of July 1, 2020. The City of Petaluma just entered into a new paratransit vendor contract effective July 1, 2018, with a four year base term. In order to include them in the coordination process, this contract would have to be renegotiated. Otherwise, the possible entry point of Petaluma into a joint process could be in 2022, when the base term expires. As 2022 is only three years out, this may be a good time frame to aim for.
- **Reservations and Scheduling:** All three operators use Trapeze software for paratransit reservations and scheduling. Sonoma County Transit owns its software while Santa Rosa and Petaluma obtains it through their agreements with MV Transportation. Reservations and scheduling consolidation would require negotiation with Trapeze around consolidated use of the system, maintenance fees, and possible refinement associated with interaction with differing on-board terminals or tablets.
- **Vehicle maintenance:** Arrangements would have to be negotiated for the integration of vehicle maintenance. Currently, maintenance approaches vary between jurisdictions. Sonoma County Transit provides all maintenance at its facility using staff included in its Transdev contract. Petaluma's vendor provides servicing at a City facility and pays for all parts and materials used in vehicle maintenance. MV Transportation provides all maintenance at its facility for Santa Rosa paratransit.

- **Eligibility:** The three transit agencies participated in a joint procurement effort for in-person ADA eligibility services several years ago. The outcome of that process was the decision by Santa Rosa and Petaluma to enter into separate contracts with the selected vendor. Sonoma County Transit chose not to enter into a contract at all and instead retained its paper application approach conducted by County staff (although they use the CARE Evaluators database for tracking and have CARE Evaluators under contract for on-call for special circumstances). Given the previous joint procurement effort, renewed discussion of the benefits of a joint system could yield a different outcome.

Paratransit service delivery offers one area of opportunity to integrate the working relationship between the operators. Just as Santa Rosa has recently agreed with Petaluma to make a transit staff position available on a part time basis to better utilize resources, so too could cooperative efforts between the agencies make better use of other available resources.

Detailed discussion of paratransit integration should begin by distinguishing between benefits accruing to the rider and those accruing to the transit agencies. With many forms of integration all the way to full consolidation, cost saving is not always the primary goal. In fact, such efforts have often proven to be cost neutral at best. However, such integration can often have substantial benefits for the riding public.

With paratransit service delivery, integration could result in easier cross jurisdiction ride scheduling. Currently, this scheduling requires interaction between the two involved agencies. A process has been established whereby the agency contacted initially handles the scheduling, particularly when involving a transfer between systems. This type of transfer requires a reservation 48 hours in advance. If the reservation window is shorter, then the riders must work out the details of the transfer themselves. Such complexity could be eliminated through integration approaches.

Similarly, a fully integrated eligibility process could simplify this step for applicants for service. A single point of contact with a common approach to eligibility criteria could result in greater consistency in eligibly determination. Further, it could eliminate reliance on doctor verification (an approach that is being supplanted by a functional skills focus).

Jurisdictions have indicated an interest in considering joint procurement for a paratransit provider. In particular, the City of Santa Rosa is open to discussing the potential for greater integration of paratransit service delivery possibly including full consolidation.

Proposal

Joint Procurement of Paratransit Services

A working group should be convened to specifically address paratransit service integration. This group of technical participants should be assisted by outside experts with experience in the nuances of paratransit operation. Such an exercise is often facilitated at the outset by the specification of guiding principles. These principals are used to provide focus and keep a study process on track. Guiding principles for Sonoma County might include:

- Positive impacts of integration on the riding public will take precedence over impacts on individual operators.
- Participating jurisdictions will be willing to negotiate agreement start dates as necessary to accomplish integration.

- A cross jurisdiction user group will be assembled to serve as an advisor for recommendations.

Specific emphasis should be placed on achieving efficiencies for riders. A focused working group could sort through the issues, address technical constraints, and identify opportunities for system integration. If such a process was directed from the jurisdiction management level (city managers, county executive), it could ensure that a true evaluation of options and the elimination of constraints was achieved. This may not occur if left to the operations management level.

PARATRANSIT CONSOLIDATION: SINGLE PARATRANSIT AGENCY

Joint procurement of paratransit vendor services by the three jurisdictions would be a major step toward full system integration. Though there are existing technical challenges in integrating paratransit contracting, it could be accomplished with the policy and technical commitment to do so. This would require a major commitment to renegotiating contracting approaches, reevaluating policy considerations such as transfer procedures, and even coming to agreements on such policies as allowing paratransit-eligible individuals to ride fixed-route services fare-free.

At the furthest end of the continuum of integration, the role of paratransit in a potential full agency consolidation would bring all of the above mentioned technical details to the table along with similar issues relating to fixed route consolidation. The paratransit opportunities themselves require considerable negotiation among the operators before beginning to approach vendors or other affected parties to assess their willingness to reexamine existing contract terms.

There are two levels of full consolidation that could apply to paratransit services. The first and most extensive would be full agency consolidation. This option is discussed in great detail in the Governance and Coordination paper. This level of consolidation would be presumed to cover all aspects of system operation. It would include full consolidation of fixed route and paratransit services into a new organization with new dedicated governance.

Another level of full consolidation could be achieved only for paratransit services. This would entail a scenario in which a consolidated paratransit agency was created to address only those issues. Under this scenario it is presumed that other transit operations would remain under the current structure. There are communities in California that have chosen to create paratransit agencies to fulfill ADA requirements and in some cases provide other services that go beyond ADA minimum requirements. A presentation of alternative structures follows. It is meant to encourage broad consideration of alternative approaches.

Consolidated Transportation Services Agencies

Paratransit, Inc.

Some jurisdictions have chosen to provide all paratransit services through a single nonprofit operator. Within this broad concept, there are different examples of how it is implemented. One example is Paratransit, Inc. of Sacramento, a nonprofit corporation founded in 1978 to provide early forms of paratransit throughout the Sacramento area. Since early in its existence, it has been the sole provider of these services. Its structure has evolved with the increasing complexity of funding and its relation to Sacramento Regional Transit.

Paratransit, Inc.'s original structure was that of a typical nonprofit corporation dedicated to a charitable purpose--providing transportation to the seniors and disabled persons in the Sacramento area. The board was self-appointed and made up of representatives of the local human service community including several agency executives. As more public money became available to the corporation, local agencies requested a more formal and publicly-selected board. In response, a new set of corporate bylaws were adopted establishing a board-appointing process that included representatives of Sacramento Regional Transit, the City of Sacramento, and Sacramento County. This structure remains today.

Over its years of operation, Paratransit, Inc. has negotiated agreements with Regional Transit to fulfill its ADA obligation. As the agency grew, it eventually acquired its operating facility, purchased Trapeze scheduling software, acquired vehicles, and coordinated with local human service agencies to maximize service efficiency. Paratransit, Inc.'s role in service coordination with other agencies was formalized in 1981 with its designation as the Consolidated Transportation Services Agency (CTSA) for most of Sacramento County.

In its role as the CTSA, Paratransit became an eligible claimant for TDA funds under Article 4.5. TDA provided a funding source to assist in supporting local agencies that continued to provide transportation services outside of the regular ADA requirements. The combination of serving as the ADA provider and the CTSA human service agency coordinator afforded efficiencies that would not have been likely with an in-house operation at Regional Transit.

Paratransit, Inc. is a dedicated transportation agency. It was somewhat unique in that respect at the time of its founding. Today, other ADA or human service transportation specialists exist. They serve as potential models for integration for Sonoma County. At the present time, there is no designated CTSA in Sonoma County. Such designation could be considered in the mix of structural approaches to service integration in the County.

Access Services Incorporated

Another nonprofit corporation single agency example with perhaps greater similarity to the Sonoma County environment is Access Services Incorporated (ASI) of Los Angeles. Like Paratransit, Inc., ASI is a 501(c)3 nonprofit corporation. But ASI was established with substantial input and direction by the Los Angeles County Metropolitan Transportation Authority (LACMTA), specifically to provide paratransit services across all of the jurisdictions in Los Angeles County.

ASI's board, much like Paratransit, Inc., is appointed by Los Angeles County agencies. It is a dedicated transportation agency charged with providing paratransit services throughout the area. In order to accomplish its mission, ASI is responsible for obtaining and managing all of the contract operators that directly provide services. ASI also manages the ADA eligibility process. This is currently done through a contract with Medical Transportation Management (MTM, Inc.). In this instance, ASI provides the facility to the contractor where in-person assessments are conducted.

ASI is the designated Consolidated Transportation Services Agency for Los Angeles County. In this capacity, ASI provides training programs for local agencies, contracts for travel training services, and performs other coordination activities.

Proposal

Consolidated Transportation Services Agency

Consider forming a single agency in Sonoma County that would be responsible to providing all ADA paratransit. Similar to a joint procurement process, evaluation of such an approach should begin with creation of a working group with support and direction from the highest levels of management and policy (possibly city councils and boards of supervisors). Full options analysis should begin with an expanded review of applicable structural models for Sonoma County.

Modify IP-based phone systems

As discussed in the interview phase of this review, simply modifying IP-based phone systems at each of the paratransit operations (as well as fixed-route) would be beneficial to operators and riders. Having the ability to transfer calls between operators would reduce confusion, enable more efficient single call service, and provide a new level in integration at a low cost.

OUTREACH

Changes to the paratransit program that impact customer experience will need to involve outreach. A starting point for the transit agencies is to use the Sonoma County Area Agency on Aging's Connected Communities Transportation Plan as a resource for further exploration of the community perspective on improving transportation for people with disabilities and seniors. In-person, and online outreach should follow.

CUSTOMER EXPERIENCE REVIEW

February 2019

INTRODUCTION

The recent publication from TransitCenter, "Who's On Board 2019, How to Win Back America's Transit Riders," noted that survey respondents who were more satisfied with transit were more likely to increase their use of transit.[48] Studies have shown that negative experiences in general are far more impactful than positive experiences. Riders who travel more frequently on public transit have a greater number of experiences, and the negative interactions are the ones that are most memorable.

Customer satisfaction encompasses the experience a customer has with a company and its products. In transit that means the journey from beginning to end, from thinking about how a trip will be made all the way through arriving at a destination.

This memorandum includes an analysis of feedback from transit riders in Sonoma County and identifies opportunities where coordination or integration among the three agencies could help to improve the customer experience.

[48] http://transitcenter.org/publications/whos-on-board-2019/

1 OVERVIEW

CUSTOMER PERSPECTIVE

What is considered good transit service may look different to different people or groups, but all people rely on transit agencies to ensure a positive user experience.

Transit agencies often speak about two categories of transit riders: those who choose to take transit despite having options, and those who do not have any other way to travel. For the riders who choose transit, a positive experience--with reliability, convenience, and comfort--matters. For riders who do not have other mobility options, reliability, convenience, and comfort are still important, but they are at the mercy of transit agencies to deliver.

However, many people fluctuate between choice-rider and dependent-rider status, and the customer service experience of a dependent rider will affect the choices they make when they have more options. Regardless of how dependent a rider is on transit, the same factors remain paramount to a positive rider experience.

Reliability

Reliability is often synonymous with on-time performance. Transit reliability means:

- Vehicles stay on schedule, and real time information about those schedules is easily accessible to each rider
- All vehicles can carry bicycles and mobility devices (like wheelchairs)
- Fares are as expected and published
- Stops are easy to identify, and it is easy to know which bus to take

Convenience

A customer's expectation of convenience includes:

- Service that is available when needed
- Reasonable travel times
- Routes that make sense; riders feel like the bus is always heading toward where they want to go
- Accessible waiting environments and vehicles
- Easy to use systems from a trip's beginning to end
- Easy to access information
- Reasonable trip cost and payment options

Comfort

Comfort is not a luxury; it is the ability to move with ease without stress or constraints. Without comfort, people will choose a different mode of travel, even if reliability and convenience are provided. Considerations in comfort include:

- A clean, safe, sheltered waiting environment
- Comfortable and safe vehicles

- Personal security on the way to and from stops, at stops, and on the bus

TRANSIT AGENCY PERSPECTIVE

Public transit agencies have multiple touchpoints with riders and potential riders, including items agencies can control and those they cannot. With constrained budgets, transit agencies must weigh tradeoffs to balance service on higher ridership routes with service that provides geographic coverage to residents in lower density areas.

Internal Challenges

Transit agencies operate in fiscally constrained environments where governing boards and the general public hold agencies accountable for the efficient use of public funds. Political pressure and financial constraints can drive agencies to prioritize efficiency over creating a customer experience that supports ridership growth and customer loyalty.

Transit agencies are complex organizations, often with multiple departments involved in providing service to the customer: Service planners create and schedule bus routes, maintenance personnel establish seat specifications for new buses, and IT staff maintain websites and real time information.

Whether or not they interact directly with customers, nearly all employees at an agency are involved in crafting the customer experience. The dispersed nature of agency organization, including decentralized decision-making about transit elements affecting customer experience, creates many points of possible error or bad decisions that can lead to negative customer experiences. These are challenges all agencies face.

External Challenges

External factors, outside the purview of transit agencies, also impact the customer experience. For example, many transit agencies have limited authority to install sidewalks or other pedestrian infrastructure to make access to transit more user-friendly. Dangerous and poor-quality pedestrian waiting environments are barriers to creating a better customer experience.

Other environmental factors also affect how secure a person feels when accessing a bus stop. Even if the stop and the bus are perfect, if a potential rider feels threatened when making their way to a stop, they are far less likely to ride.

A current trend in urban areas has been the installation of dedicated transit lanes and transit signal priority to improve the speed and reliability of bus service. Both require partnerships with local government agencies and are good examples of how agencies are working to modify some of the external factors affecting ridership.

2 DISCUSSION

In 2018, Sonoma County Transit, Santa Rosa CityBus, and Petaluma Transit each surveyed riders in cooperation with the Metropolitan Transportation Commission (MTC) to support federal Title VI reporting requirements, refine regional analytical planning tools, and perform other transit passenger, and equity analyses. The surveys included questions about trip origin and destination, demographic information, fares, customer satisfaction, and interagency transfers.

To better understand how the three agencies might work better together to improve the customer experience, the team analyzed survey questions related to the factors identified as being most relevant to customers.

CUSTOMER SURVEYS

Sonoma County Transit was the only agency that directly measured customer experience in their survey. They were also the only agency that listed the number of respondents that answered their on-board survey. More than four out of five respondents (81%) rated their experience of using the system as good or excellent (Figure 1). There was a marked decrease in customer experience during PM peak, off-peak, and weekend service. The decrease could be a result of reduced service off-peak and on weekends. It is worth examining the specific reasons why the number of customers rating their experience as excellent drops 33% during the PM peak when compared with the AM peak. Further analysis may be warranted to determine if there is a relationship between the below average ratings on weekends and the absence of service during the same period.

Figure 46 Sonoma County Transit Customer Overall Experience Rating

	Weekly Total	AM Peak	PM Peak	Weekday Off-Peak	Weekend
5 – Excellent	40%	49%	33%	37%	30%
4 - Good	41%	39%	43%	40%	47%
3 - Average	14%	9%	19%	15%	15%
2 - Fair	4%	1%	3%	6%	6%
1- Poor	2%	2%	2%	2%	2%
MEAN (Out of 5)	**4.12**	**4.34**	**4.02**	**4.03**	**3.98**

Source: 2018 Sonoma County On-Board Survey

Respondents overwhelmingly were regular riders. Questions in the different agency surveys asked how often passengers used the service. Nearly every respondent for Sonoma County Transit and Santa Rosa CityBus used the service more than once per week during the period surveyed. An overwhelming majority of Petaluma Transit passengers also use the service more than once per week, but at a smaller rate than the other two agencies (Figure 2). Petaluma Transit was most likely to have passengers who use the service infrequently, though they represented approximately 15% of survey respondents.

Figure 47 How Often Customers Use Transit in Sonoma County

	Sonoma County Transit	Santa Rosa CityBus	Petaluma Transit
More than once per week	99%	97%	86%
One to three times per month	1%	3%	12%
Less than once a month	0%	1%	3%

Source: 2018 Sonoma County On-Board Survey; 2018 Santa Rose CityBus On-Board Survey; 2018 Petaluma Transit On-Board Survey

Reliability

The surveys did not ask about passengers' experiences with, or perception of, service reliability and on-time performance.

CONVENIENCE

Transit surveys from across the country indicate riders and non-riders rank frequency of service to be the most important aspect of choosing transit. The time spent waiting for a bus and for making a transfer to another bus are key considerations and must be competitive with other modes of travel. Research indicates that customers perceive waiting time to be about double the value of on-board time. This means that, while riding a bus for two minutes is perceived by the rider as two minutes if the bus is moving, the same two minutes waiting at the stop is perceived as four minutes by the customer. A stopped bus brings the time perception closer to that of the waiting time.

REAL-TIME INFORMATION

Like most transit agencies in the United States, transit agencies in Sonoma County have made investments in technology that make it easier for riders to plan, pay, and use public transit. The goal of seamless integration of trip planning, real-time communication, and payment--best exemplified by the Mobility as a Service (MaaS) concept--is dependent on the ability of multiple agencies and modes of transportation to present a unified picture to the rider.

Bay Area transit agencies share a common real-time information system, available through 511.org. It must be noted, however, that 511.org does not often supply an integrated view of real-time information; people who move between agencies must bridge that gap themselves.

Sonoma County Transit and Santa Rosa CityBus both offer real-time information through NextBus and MyStop, respectively. Real-time arrival information is also available at the Santa Rosa Transit Mall and the Copeland Transit Mall for multiple agencies through 511.org. Petaluma Transit offers real-time information for their customers through the MyStop app. All three agencies, along with Golden Gate Transit and Sonoma-Marin Area Rail Transit (SMART), provide real-time information via the Transit app.

The Santa Rosa CityBus and Petaluma Transit surveys both asked passengers about their access to smartphones and availability of data to access the internet (Figure 3). Smartphones and the internet can support access to real-time arrival information provided by a mobile application or directly on a website. Most respondents on weekdays (at least two-thirds) had access to a

smartphone, and most of these had access to the internet. Weekend passengers had lower rates of smartphone access.

Petaluma Transit passengers have lower rates of access to smartphones and the internet, suggesting real-time information at bus stops and transit centers would provide information access to more people than would internet-based systems.

Figure 48 Smartphone and Internet availability

Agency	Weekday passengers		Weekend passengers	
	Smartphone	Internet	Smartphone	Internet
Santa Rosa CityBus	65.5%	86.8%	58.9%	88.0%
Petaluma Transit	76.1%	79.4%	68.2%	71.7%

Note: Internet column represents passengers who have enough data to use the internet (of those who indicated they have a smartphones)
Source: 2018 On-Board Surveys

FARES AND TRANSFERS

Bay Area transit agencies share a common fare payment system with the Clipper® card. Today 23 transit agencies in the Bay Area use the Clipper® card. In Sonoma County, all agencies provide connecting service and reciprocal transfer agreements.

The need to make transfers, within and especially between systems, can be a barrier to choosing to travel by transit. A significant percentage of riders in the County reported the need to transfer at least once to complete their trip. As shown in Figure 5, over 40% of Sonoma County Transit riders responding to the survey reported that they connected to Santa Rosa CityBus during the week.

Transit riders reported the need to transfer to complete a trip, either within or between systems:

- Petaluma Transit survey respondents: 32%
- Santa Rosa CityBus survey respondents: 48%
- Sonoma County Transit survey respondents: 54% within the system on weekdays, and 86% on weekends

Figure 49 Weekday Transfers Needed for Petaluma Transit and Santa Rosa CityBus Riders

Number of Transfers	Petaluma Transit	Santa Rosa CityBus
None	68%	52%
One	25%	47%
Two or more	7%	1%

Source: 2018 Santa Rosa CityBus and 2018 Petaluma Transit On-Board Surveys

Figure 50 Sonoma County Transit Customers Transfers Needed to Reach Destination

Agency	Weekday Total	AM Peak	PM Peak	Weekday Off-Peak	Weekend
Another Sonoma County Transit bus (different from current bus)	54%	82%	38%	41%	86%
Santa Rosa CityBus	41%	32%	62%	43%	-
Golden Gate Transit	7%	7%	-	9%	14%
SMART (Sonoma-Marin Area Rail Transit)	4%	-	-	7%	13%
San Francisco Muni	4%	-	-	9%	-
AC Transit	2%	7%	-	-	-
BART	1%	-	-	-	13%

Source: 2018 Sonoma County Transit On-Board Survey

Transfer Policies

Transfer policies vary among the three operators. For Sonoma County Transit, a person can transfer to any other Sonoma County Transit bus for free for up to three hours once the initial fare has been paid. There are also upgrades depending on the number of zones a person is traveling. Transfers from other operators are worth the price of a single-zone adult fare of $1.50 for adults, $1.25 for youth, and $0.75 for Seniors/Disabled/Medicare card holders. For example, a trip from the City of Santa Rosa to the City of Petaluma on Route 44 or 48 is a two-zone trip. Riders transferring from Santa Rosa CityBus routes must do so within three hours of initial fare payment to receive the discount.

Santa Rosa CityBus and Petaluma Transit fare payment is valid for two hours after the initial fare has been paid. Transfers are also valid for a discount on Golden Gate Transit, and for a discount for a one-zone ride on Sonoma County Transit. Transfers from Golden Gate Transit, SMART, and Sonoma County Transit are valid for one trip on Santa Rosa CityBus.

Transfer discounts are only applicable when transferring to an agency where the rider is paying with a non-pass product. However, what is required for riders with passes to transfer between agencies is not clearly communicated to customers. There is a multi-operator transit pass called Super Pass sold through Sonoma County Transit's website that provides the choice of unlimited travel on two or more of the bus transit agencies that serve the county (including Golden Gate Transit). It is unclear whether there are any discounts built in, and a customer traveling between Petaluma Transit and Santa Rosa CityBus would have to know to visit the Sonoma County Transit website to purchase the pass each month.

It appears that passengers cannot use agency-specific monthly passes to board routes of a different agency. If a passenger who pays a fare with cash needs to transfer to another agency, they can do so with a transfer ticket, which is accepted by each transit agency. The Clipper® card greatly simplifies these inter-agency fare relationships; however, Clipper® has very low penetration among Sonoma County transit riders.

Fare Structure

The fares available to riders vary among the transit systems in Sonoma County. Riders who travel on multiple agencies have many choices for fare products that best fit their travel needs, as shown in Figure 6.

All agencies have a base local adult fare of $1.50, however Sonoma County Transit uses a zone fare system so the base fare of $1.50 is for travel within a single zone. Based on travel length, the base local fare for an adult can cost up to $4.80 to cross five out of a total of eight fare zones (Figure 7).

Within the Sonoma County Transit system, most local routes operate under its Fare-Free program, in which the local jurisdiction where the route operates subsidizes passenger fares.

Beyond the many different types of passes available, the definitions of youth and student differ among the three agencies, as shown in Figure 8. Fares for people with disabilities are valid with a current Medicare card, DMV placard ID, or Regional Transit Card identifying disability eligibility for all agencies.

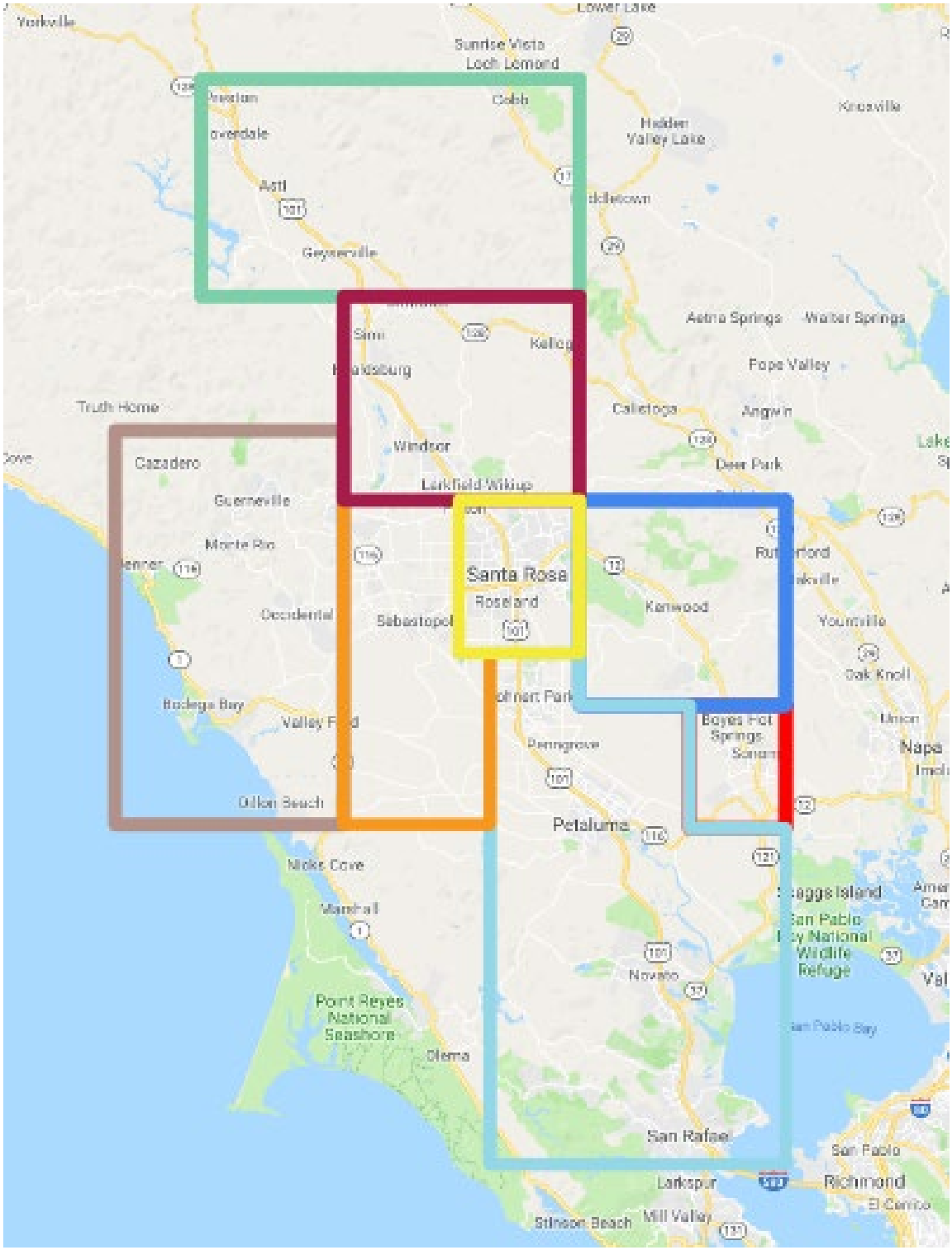
Santa Rosa CityBus offers a 31-day pass, Petaluma Transit offers a paper monthly pass (calendar month) or a rolling Clipper 31-day pass, and Sonoma County Transit offers both. Neither agency offering a monthly pass defined whether monthly refers to a calendar month or a rolling period of 30 or 31 days.

In partnership with Sonoma County Transit, local routes are fare-free in many areas. Through a partnership between the transit agencies of Sonoma County and the Santa Rosa Junior College, currently enrolled students who attend campuses in the cities of Petaluma or Santa Rosa can ride for free. In addition, Sonoma County Transit has an agreement with Sonoma State University to subsidize, in part, free use of Sonoma County Transit by its students. Both Sonoma County Transit and Santa Rosa CityBus offer free rides to veterans. The City of Santa Rosa's Trip Reduction Incentive Program sells subsidized monthly passes for Santa Rosa CityBus and Sonoma County Transit through employers in Santa Rosa.

Figure 51 Fares across the Sonoma County Transit Agencies (Feb 2019)

Pass/Fare Type	Sonoma County Transit	Santa Rosa CityBus	Petaluma Transit
Single Use Ticket			
Adult	$1.50	$1.50	$1.50
Youth	$1.25	$1.25	$1.00
Half-Price	$0.75	$0.75	$0.75
24-Hour Day Pass			
Adult		$4.00	
Youth/Student		$3.00	
Half-Price		$2.00	
10-Ticket Ticket Book/Transit Pass			
Adult		$14.50	$15.00
Youth/Student		$12.00	$10.00
Half-Price		$7.00	$7.50
20-Ride Fast Pass			
Adult	$30.00		
Youth/Student	$20.00		
Half-Price	$15.00		
40-Ticket Ticket Book			
Adult		$58.00	
Youth		$48.00	
Half-Price		$28.00	
31-Day Pass			
Adult	$62.50	$50.00	
Youth	$47.00	$25.00	
Half-Price	$31.25	$25.00	
Unlimited Ride Monthly Pass			
Adult	$62.50		$30.00
Students (under 18 with ID)	$47.00		$20.00
Half-Price	$31.25		$15.00
SuperPass - Annual			
Adult	up to $405.00		
Youth	up to $254.00		
Half-Price	up to $202.50		
Medicare	up to $140.70		
Youth Pass			
Youth	$24.00		$20.00

Figure 52 Sonoma County Fare Zones



Source: Sonoma County Transit

Figure 53 Fare Categories by Transit Agency

Definitions	Sonoma County Transit	Santa Rosa CityBus	Petaluma Transit
Adult	Not defined	19 or older	18 or older
Children	All children under 5 ride free with one paying adult	Children under 5 ride free	Two children five or younger free with one paying adult
Youth/Student	18 or younger with ID	5 - 18	18 and under, or SRJC student with ID
College Student	All rides free (2018)	All rides free for Junior College students	No category
U.S. Veteran	All rides free	All rides free	No category
Senior Citizen/Senior	65 or older	65 or older	65 or older
Half-Price	Medicare card holders, people with disabilities	Medicare card holder, or 65 or older, or Disabled	Seniors/Disabled/Medicare card holder

Source: http://sctransit.com/fares/discount-categories/, https://srcity.org/1658/Fares, http://cityofpetaluma.net/pubworks/fares-transfers.html

Fare Collection Technology

Fare collection technology in the form of a Clipper® card or mobile app makes it easy for riders to use multiple agencies to complete their trips. Currently, the Clipper® card is the only one-stop payment method for riding any and all transit in Sonoma County.

As the replacement for the current Clipper® card, Clipper® 2.0 presents an opportunity for collaboration in the integration of this new technology. The new system will move away from having the account information assigned to an individual card, to one where the account information is assigned to a single person. This improves security and allows for the payment of fares with a credit card, mobile devices, and traditional smartcards.

Figure 9 shows the current breakdown of fare payment on the County's three systems. Cash or paper tickets is the most common method of fare payment for all three agencies. "Other means" can signify a mobile app, such as Hopthru for Sonoma County Transit.

Figure 54 Type of Fare Payment Used, by Agency

Fare Payment Type	Sonoma County[49]	Santa Rosa[50]	Petaluma[51]
Cash or paper	55%	66%	63%
Clipper® card	15%	13%	16%
Other means	30%	21%	22%

COMFORT

As mentioned above, transit agencies can control the cleanliness and some safety aspects of their vehicles but controlling for those variables outside the vehicles is more complicated because responsibility for sidewalk connectivity, street lighting, or general safety of an area falls under the duties of local municipalities and public safety agencies. The surveys did not ask respondents to provide feedback on safety, accessibility, or cleanliness of bus stops or vehicles.

[49] 2018 Sonoma County Transit On-Board Survey, Spring 2018

[50] 2018 Santa Rosa CityBus On-Board Transit Survey, July 2018

[51] 2018 Petaluma On-Board Transit Survey, July 2018

3 FINDINGS

Figure 10 lists opportunities for transit agencies to coordinate in areas that would most improve satisfaction and reduce barriers for customers to travel freely in the county. Opportunities are described in more detail below.

Figure 55 Opportunities for Agency Integration

System	Opportunities
Common Customer Survey	▪ Develop common questions for the on-board survey to provide better information on customer satisfaction. ▪ Jointly review survey results to identify points of overlap and coordinate improvements and service changes. ▪ Build survey questions that allow analysis of items that will impact overall customer satisfaction the most, if implemented. This helps to prioritize strategic investments.
Customer Experience Coordinator	Identify a single person to act as the liaison between agencies to develop shared policies where possible
Shared Website/ Call Center	Allow customers to find all information they could need for their trip on one site, or by calling one phone number.
Simplify Fare and Transfer Policies	▪ Simplify the current fare structure for all agencies in Sonoma County (perhaps using one coordinated fare structure for all agencies) focusing on consistent terms and pass products. ▪ Given the high transfer rate between agencies, build a fare system that encourages this behavior.
Transit Waiting Environment Toolkit	Establish a toolkit to aid in the improvement of transit waiting environments in Sonoma County.
Real-Time Information	▪ Invest in real-time information infrastructure and displays so that customers know when the buses are coming. ▪ Add real-time information at the Coddington Transfer Center and other high-ridership stops. ▪ Add real-time information display at Petaluma Transit Center. ▪ Explore the feasibility of presenting integrated real-time information among all Sonoma County agencies on 511.org.

COMMON CUSTOMER SURVEY

Each agency using their own survey has previously led to inconsistencies in the survey questions and responses. For example, some survey questions used different quantities for sorting and categorization which made it impossible to compare results among agencies.

One area for potential collaboration is to develop a common set of questions for their on-board surveys, and to develop a shared customer experience survey that would be available online. This would help identify common issues faced by all agencies and aid in the development of internal solutions applicable to all agencies. The benefit of a common customer survey is having better data about the job each agency is doing, and to help make better decisions as a region rather than as individual agencies.

CUSTOMER EXPERIENCE COORDINATOR

A Customer Experience Coordinator helps bring more focus within the agency to inter-departmental issues that affect the experience of the customer. This could be a new position or restructuring of an existing position.

For example, in 2016, Community Transit in the State of Washington established a Department of Customer Experience. The department now oversees the agency's customer care division, customer outreach, vanpool program, and the agency's customer-facing technology solutions. The department is also responsible for improving customer experience by working with other departments to resolve customer service issues and preventing future issues.

In other transit agencies, the responsibility for coordinating customer experience issues between multiple departments is assigned to a new position or the restructuring of an existing position. This person is empowered to recommend and implement the changes needed to improve the experience of the customer, retain transit riders, and ensure long-term customer satisfaction.

INCENTIVIZE CLIPPER® AND PAYMENT APP USE

Fare payment is a component of the transit journey that can have wide-ranging effects on the customer experience. Cashless fare payment has multiple benefits, including reducing dwell time for faster service, increased customer loyalty, and reduced cost of cash management.

Other agencies in the region including SFMTA, AC Transit, and BART, have implemented a discount program for using Clipper® or a Mobile Fare Application to pay for their trips instead of cash. AC Transit currently offers customers a discount of $0.10-0.50 for using Clipper® Card. With the pending launch of a Mobile Fare Application, AC Transit is proposing to increase Clipper® and Mobile Fare payment discount to $0.25-0.50 and is implementing a Pay-as-you-go option for users of their Mobile Fare Application.

Pay-as-you-go, also known as Fare capping, gives customers an option to pay for their daily, weekly, or monthly passes one ride at a time, using a mobile fare application or potentially Clipper® 2.0. Studies have shown that the use of cashless payments can reduce dwell time by two seconds per boarding, helping to speed service and increase reliability.[52] Research has also shown that greatly simplified fare payment improves customer satisfaction and is crucial in eliminating perceived barriers to ridership.

SIMPLIFY FARE POLICIES

Future coordination of fare policies could involve further simplifying Sonoma County Transit's fare zones to reduce the number of zones. One option to consider would be eliminating formal fare zones and instead having two to three fare levels such as local, in-county, and out-of-county. This arrangement would make it easier for riders to determine the cost of a trip regardless of what agency they use. Fare levels should be determined by Sonoma County Transit but should be revenue neutral and place an appropriate value on the service being provided. The benefits of simplification would be reducing customer confusion about the costs of a trip and increasing the perceived value of the service. Simplification would also help the more than 40% of Sonoma County Transit customers who transfer to another agency to complete their trip.

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[52] Shockley, Salinas, Taylor, 2015 Making Headways: An Analysis of Smart Cards and Bus Dwell Time in Los Angeles

Another option to consider is the development of an unlimited pass program offering deep discounts to institutions to provide their employees, students, or residents access to all Sonoma County transit operators. Unlimited access pass programs have been very successful across the country and in California. One notable example is the pass programs provided by the Regional Transportation District in Denver.

TRANSIT WAITING ENVIRONMENT TOOLKIT

To improve the transit waiting environment, agencies should develop a toolkit or a best practice guide that could be shared internally and externally with community partners and local municipalities.

This toolkit would define different tiers of good transit waiting environments and develop steps that community partners and the agencies could take to make bus stops and transit centers safer and more attractive for the customer. The toolkit could also include a review of the pedestrian network in the vicinity of high-use transit stops to assess customer access and comfort from surrounding areas and neighborhoods. High-quality waiting areas and ease of access to transit stops benefit the agencies, the customer, and the community.

The toolkit could include a waiting area typology (with types such as park-n-ride facility, major transit station, minor transit hub, high ridership stop, moderate ridership stop, lower ridership stop, rural ridership stop), and a list of essential elements (e.g., shelters, trash cans, bathrooms, real-time signage, kiosk/staffing, benches, community art, mobile technology plug in location).

REAL-TIME INFORMATION

Real-time information improves customer satisfaction by identifying an estimated wait time for a bus to arrive. Historically, transit passengers have relied on the published schedule to estimate arrivals. But with the appropriate technology, transit agencies can share live vehicle location data and help passengers reduce uncertainty. For example, even if a bus ends up being late, the advance knowledge that the bus will be late improves the experience and overall satisfaction of the agency's communication.

A few different methods can provide real-time information to the public, including apps, real-time information displays at stops, text messages, and phones. Real-time displays are generally found at high-ridership locations, and are provided using equipment and technology from a vendor.

Currently, Santa Rosa CityBus and Petaluma Transit use AVAIL, and Sonoma County Transit uses NextBus. Joint procurement of this service would help the agencies to integrate the way they provide real-time information.

CUSTOMER SERVICE AND MARKETING

February 2019

1 OVERVIEW

Branding, marketing, and customer service form people's first impressions of a transit agency or system. Identifying opportunities to integrate the public-facing aspects of customer service and marketing will require face-to-face discussions among the providers. This memorandum identifies functional areas of agencies' customer service and marketing where coordination, collaboration, and consolidation may be possible.

2 DISCUSSION

CUSTOMER SERVICE

The way transit agencies communicate information about where a person can ride, how to ride, how to pay, and accommodations that are available impacts ridership. Riders' inability to find the information they need to use the service often creates barriers to riding transit. Riders can become frustrated trying to figure out where and when they can go, where they need to wait, how to pay, how much to pay, and who they can talk to if they have questions. From the perspective of a transit agency, providing good customer service supports transit operations by bridging the gap between operators and customers.

Good customer service helps riders with:

- Planning a trip
- Asking for help, or knowing where to turn for answers
- Understanding how to file a comment or request changes

Information Available Online

The transit agencies in Sonoma County each hosts their own website to help riders plan trips; find fares, schedules, maps, and hours of operations; find phone numbers to connect with customer service representatives; and view service policies. The prevalence of people getting this information electronically has reduced the need for customer service call centers.

The transit agency websites are cross-linked. For example, Petaluma Transit and Santa Rosa CityBus each lists Sonoma County Transit in the Quick Links section on their websites. On the Sonoma County Transit website, the trip planner uses Google Transit data that includes other agencies, and Santa Rosa CityBus and Petaluma Transit are listed under a sub-menu, called, "Connections," at the bottom of its home page. However, to plan a multi-agency trip, a prospective rider must navigate from one website to another.

Google Maps is a user-friendly way for people to plan local or regional trips, as long as Google has current GTFS feeds from the transit agencies. In some ways, multimodal trip planning apps like Google Maps and Apple Maps may provide riders with a more robust regional trip-planning tool than individual agency websites because it is easier to interact with the results on a mobile device. A limitation of these online tools is that real-time fixed route transit information is limited.

Mobile Applications for Trip Planning

In Sonoma County, all transit agencies use mobile applications to keep riders informed. Mobile applications and websites that display real-time bus schedule and arrival information facilitate easier and more convenient travel by transit. However, transit riders in Sonoma County who need to transfer between systems need to open separate mobile apps to access each system's real time information; there is no integration offered between systems. Petaluma Transit and the Santa Rosa CityBus each use the mobile application MyStop, but a rider can only view one system at a time. Sonoma County Transit uses the NextBus mobile application and website for real-time information.

511.org

Outside the individual agency websites and mobile apps, 511.org provides the most complete information of all the transit options in Sonoma County. 511.org integrates real-time transit and traffic information and is available for anyone traveling within the San Francisco Bay Area. One limitation is that the information is not consistently integrated between various transit agencies. Individual stops may yield real-time information for an agency that uses that stop, but nearby stops with service from other agencies are not displayed. One example is the Copeland Transit Mall stop (stop ID 7754100), for which 511.org only provides information about Sonoma County Transit services, even though Petaluma Transit, Golden Gate Transit, and SMART each operate in the vicinity. This lack of interagency integration makes it difficult for most riders to conveniently plan multi-agency trips.

Additionally, 511.org, while offering adaptability to mobile devices, does not offer a mobile app that allows users to customize their search to a smaller geographic area or to only view transit options. For many transit riders, 511.org may present too much information to be useful on the go.

Information Available by Phone

All transit agencies in Sonoma County maintain call centers where customers can call to ask questions about service, schedule trips, or lodge a concern. Only paratransit reservations are open seven days a week. Petaluma Transit is the only agency that fixed-route riders can call on weekends. For fixed-route customer service, agencies increasingly depend on riders to access information on their smartphones and computers to answer questions about arrivals, departures, and fares. 511.org also operates a bilingual (English/Spanish) phone information center open 24-hours per day and seven days per week. The 511 hotline is designed only to provide information, not to address other customer service issues.

Figure 56 Call Center Hours

Fixed-Route Service	Sonoma County	City of Santa Rosa	Petaluma
Weekdays	8:00 AM - 5:00 PM	8:30 AM - 4:30 PM	6:15 AM – 8:00 PM
Saturday	Closed	Closed	6:15 AM – 8:00 PM
Sunday	Closed	Closed	6:15 AM – 8:00 PM
Paratransit Reservations			
Weekday	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM – 5:00 PM
Saturday	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	9:00 AM – 5:00 PM
Sunday	9:00 AM - 3:00 PM	9:00 AM - 3:00 PM	9:00 AM – 3:00 PM

Information Available in Person

A customer service representative is stationed at the Santa Rosa Transit Mall on weekdays from 8:30 a.m. to 4:30 p.m. This staff person provides information on all Sonoma County transit options. The facility is also staffed by up to two more representatives that provide customer assistance, keep the area clean, and provide nuisance abatement. The Copeland Transit Mall is unstaffed. For the past five years, Sonoma County Transit has been contributing TDA funds to help offset the cost to staff the Santa Rosa Transit Mall and keep the facility clean and

operational. Golden Gate Transit is also contributing towards Transit Mall operations and maintenance beginning FY2020.

Travel Training

Travel training programs are a great way to instill a level of confidence in new transit riders and address their potential conflicts or barriers to riding transit. Public transit can be intimidating, especially for people who are new to transit service. Travel training is helpful for people who are capable of using fixed-route bus or rail service but would need some assistance before doing so. Travel trainers provide comprehensive instruction in real-life transit scenarios to help familiarize the passengers with local transportation options. Travel trainers also show people how to use Google Maps for trip planning because it is more user friendly and interactive.

Sonoma County Transit offers travel training upon request but does not have an active program. Santa Rosa CityBus provides training to riders on how to use the 511.org system. Petaluma Transit's travel training program is very active, with more than a dozen classes per year and two different programs depending on the needs of the group. In general, the travel training aims to teach users to:

- Read and understand maps and schedules
- Recognize bus stops
- Transfer to and from buses
- Safely board and alight a bus

Petaluma Transit also uses travel training videos, which can be an inexpensive way to reach out to potential riders about using the system.

MARKETING

Transit marketing is important to attract new riders, to retain existing riders, and to demonstrate the value of the service to the public. In an operational environment like Sonoma County, with several distinct transit agencies and service policies, the challenge is how to make the service provided across multiple agencies appear integrated and seamless.

Branding

Effective branding of a product or service, like public transit, can result in clear and positive public recognition and improved acceptance of the service. Each of the transit agencies of Sonoma County have worked to develop their own individual brand identities. The branding in public transit is not limited to the brand of the agency but can be expanded to include the branding of individual routes and services. The challenge with service coordination is often in creating a high-quality experience as riders travel between different agencies. Branding can play a role in creating a seamless experience that drives increased ridership.

Currently, each of the three Sonoma County agencies has its own branded colors, logos, and stop markers. Santa Rosa CityBus identifies bus stops signs with markers on high-frequency routes that match those shown in their system maps. Sonoma County Transit uses window graphics in buses on their fare-free routes. They also brand bus stops with placards beneath the standard bus stop signs where there are local shuttle services.

Examples of regional branding include:

- In metropolitan Phoenix there is an umbrella marketing and branding approach and multiple operators use the Valley Metro unified brand.
- In North Carolina's Raleigh-Durham Research Triangle area, multiple service providers share branding under the banner of GoTriangle.
- In the Puget Sound Region around Seattle, Sound Transit has multiple modes and operators all tied together in a carefully devised and strictly enforced brand identity.

PUBLIC INFORMATION PROGRAMS

Public information programs can include service promotions, media relations, public outreach, and print materials. Some agencies in the U.S. provide training at local businesses and institutions to educate employees about transit service and transit benefits programs.

Social Media

According to the Transportation Research Board's (TRB) Transit Cooperative Research Program, *TCRP Synthesis 99: Uses of Social Media in Public Transportation*:

> Social media provide transit agencies with an unparalleled opportunity to connect with their customers. These connections may take many forms, but they all can help agencies personalize what can otherwise appear like a faceless bureaucracy.

As noted in the report, the reasons transit agencies have embraced Social Media fall into five categories.

- Timely updates—Social media enable agencies to share real-time service information and advisories with their riders.
- Public information—Many transit organizations use social media to provide the public with information about services, fares, and long-range planning projects.
- Citizen engagement—Transportation organizations are taking advantage of the interactive aspects of social media to connect with their customers in an informal way.
- Employee recognition—Social networking can be an effective tool for recognizing current workers and recruiting new employees.
- Entertainment—Agencies often use social media to display a personal touch and to entertain their riders through songs, videos, and contests.

Engagement in social media varies between agencies in Sonoma County. Sonoma County Transit has no formal presence on three major media platforms: Facebook, Twitter, and Instagram. Petaluma Transit posts on Twitter roughly twice a month, informing people about events or rider alerts. Santa Rosa CityBus has a Facebook and Twitter presence.

Staff availability was viewed as the greatest obstacle to the adoption of social media by transit agencies. As people become more dependent on social media for news and information, it becomes more difficult for transit agencies that do not have a strong presence on social media platforms to stay engaged with riders and the public.

Facebook and Twitter

Facebook and Twitter are the dominant social media platforms today, with 2.3 billion and 232 million active monthly users, respectively.

Petaluma Transit is the only transit agency with a Facebook page that is not shared with another City department, and it has the most likes and engagement activity of any of the Sonoma agencies. On Twitter, Petaluma Transit tweets roughly twice a month, reaching out to followers about events and rider alerts.

Santa Rosa CityBus' Facebook page is shared with the City's Transportation and Public Works Department; most of their content is not related to transit service. Santa Rosa CityBus is the most active agency on Twitter, with almost 4,300 tweets and 790 followers. They inform their followers about delays and service changes.

On Twitter and Facebook, Sonoma County Transit is managed under Sonoma County's Transportation and Public Works Department. Social media posts from the County's Transportation and Public Works Department primarily revolve around roadway conditions. As of late January 2019, the most recent tweet about Sonoma County Transit was in December of 2018 to celebrate the service's new electric bus.

YouTube

Videos can be an effective means of providing information to current and potential transit riders. Petaluma Transit's former transit division manager has a personal YouTube page with three videos that are four years old, but still relevant to using the system today. Sonoma County Transportation and Public Works has four subscribers to its YouTube Channel, but none of the videos are transit related. The City of Santa Rosa has a YouTube Channel, but it is not dedicated to transit and provides only one video about transit.

Figure 57 Social Media Presence among the Transit Agencies

	Sonoma County Transit	Santa Rosa CityBus	Petaluma Transit
Facebook Name	Sonoma County Transportation & Public Works	Santa Rosa Transportation and Public Works	Petaluma Transit
Facebook Likes	1,950	1,483	312
Twitter Handle	@SoCo_TPW	@SRCITYBUS	@PetalumaTransit
Twitter Followers	144	790	178
Tweets	*NA	4,285	237

As of February 1, 2019
* Tweets about Sonoma County Transit

3 FINDINGS

The transit agencies in Sonoma County have an opportunity to coordinate many aspects of customer service and marketing. The agencies have taken some steps that are meaningful to customers, such as the information-sharing at the Santa Rosa Transit Mall and cross-linking between each of the agency's websites. A selection of opportunities for additional collaboration in the future is shown in Figure 3.

Figure 58 Opportunities for Agency Integration

	Opportunity
Call center coordination	Call center coordination could allow agencies to cover each other's overflow calls and after-hours calls.
Call center consolidation	Replace three existing call centers that handle customer service and scheduling with one consolidated call center.
Shared outreach and coordination position	Use one person or team to manage employer outreach, travel training, and service coordination for all transit systems in Sonoma County.
Marketing coordination	Agencies would coordinate marketing programs, to include cross-posting on social media, development of complementary, and shared marketing campaigns.
Marketing coordinator	Hire a marketing coordinator to manage individual or joint marketing campaigns.
Shared branding	Create a brand to represent all transit agencies in Sonoma County.
Shared mobile application	Consider a single shared mobile application to provide a unified view of public transit options in Sonoma County.
Shared website	Create one website with the information on riding transit anywhere within Sonoma County, and links and resources for those wishing to travel outside of the county. This could be hosted from SCTA's site or GoSonoma.org.
Coordination of graphic design and printing services	Consider when and for what printing and graphic design services makes sense, such as with regional outreach or shared printer procurements.
Shared social media presence	Establish a shared social media presence on all social media platforms for anyone looking to use transit in Sonoma County. Adding customer-focused first- and last-mile solutions beyond transit could also be useful.
Social media manager	Hire a social media manager to manage joint social media marketing and assist individual agencies with their social media presence. This person could report to a marketing coordinator.
Service alerts	Consider using Twitter to communicate service alerts and changes for all agencies, and direct users to Twitter for service updates for all transit systems in Sonoma County. (i.e., @SonomaTransitAlerts)
Use YouTube to communicate with the public	Use YouTube to publish travel training tutorials to show new riders how to use transit service. This investment could reduce the barriers perceived by the community to riding transit, as well as reduce the number of calls to the call center.
Shared links between agencies	Consider whether links to other Sonoma County agency websites could be more prominently displayed.

4 LABOR FORCE REVIEW

March 2019

1 OVERVIEW

The labor structure of Sonoma County's transit providers is an important factor in the consideration of transit system coordination and integration. Labor issues are governed by a complex mix of laws and labor agreements and could have a significant impact on the ease with which integration alternatives are possible and even whether they are possible. However, as with other aspects of the transit organizational environment, willing partners can potentially work through the issues.

Transit services in Sonoma County are provided through a combination of in-house and contracted services. The approach varies by operator and is a patchwork of represented and non-represented employees, some with the agencies and some with contractors. Figure 1 lists the various labor agreements in place among Sonoma County operators. Note that city employees of Petaluma are unrepresented.

A brief overview of the labor arrangements follows:

City of Santa Rosa: Employees of the City are represented by four different labor organizations depending upon the job class of the employees. City drivers are represented by the Service Employees International Union (SEIU). Maintenance personnel are represented by the Operating Engineers. Support services staff and professionals are represented by the Teamsters. Finally, management and planning personnel are represented by the Santa Rosa Management Association. MV Transportation operates paratransit services for the City under contract. Their employees are not represented by a labor organization.

Sonoma County: Sonoma County Transit contracts most aspects of operations. Fixed route transit services are operated under contract by Transdev. The employees of this long-time contractor were represented by the SEIU until July 2018, at which time the employees decertified the union. Currently, the Transdev employees are not represented. Sonoma County Transit contracts paratransit services to the Volunteer Center of Sonoma County. Its employees are not represented. Four of the five County employees at Sonoma County Transit are represented by the SEIU. The Transit Manager is not represented.

City of Petaluma: The City of Petaluma contracts most aspects of its transit operation. MV Transportation is the current contractor for fixed route and paratransit operations, dispatching, and maintenance. Employees are represented by the Amalgamated Transit Union, through which contracts are negotiated with MV Transportation. City employees are not represented in the direct operations of Petaluma Transit.

Figure 59 Labor Force Summary

	Contract	Employees Represented	Labor Organization	Contract Expiration
City of Santa Rosa	Unit 3	Maintenance	Operating Engineers	6/30/2020
	Unit 4, 6, 7	Unit 4: Support Services Unit 6: Professional Unit 7: Technical	Teamsters Local 856	6/30/2020
	Unit 8	Transit employees (drivers)	SEIU	6/30/2020
	Unit 18	Misc. Mid-Level Management: Transit Manager, Field Supervisor, Transit Superintendent, Transit Planner	Santa Rosa Management Association	6/30/2020
	MV Transportation		Teamsters Local 665	
Sonoma County Transit	Transdev		No labor contract	
	County employees	Of five direct employees, four are represented. Transit Manager is not represented.	SEIU	
Petaluma	MV Transportation	All operations: drivers, maintenance	Amalgamated Transit Union Local 1575	6/30/2019
	City Employees		No labor contract	

2 DISCUSSION

Labor Agreements

In the event of transit agency consolidation, addressing the various labor agreements in place among the transit operators or their jurisdictions would pose a challenge. Even willing partners would have significant issues to resolve in consolidating labor groups.

The largest issue would be which union or unions would represent which employees. Because employees are represented by a variety of unions with differing jurisdictions, a combination of negotiation and legal interpretation would be necessary in order to move forward. Should a new organization be created, it is unlikely that any union would simply disclaim its role. Presuming that any involved labor organization would have an interest in continuing to represent some of or all the combined employees, an election could allow employees to decide who would represent them. One potential negative outcome is that the existing unions could file complaints against each other for attempting to raid their members, a practice that is forbidden by federal law.

One of the most critical features for the members of a newly formed employee group would be the integration of labor provisions. Among the specific contract provisions that would need to be sorted out, likely the most difficult--and possibly contentious--would be seniority. Seniority is one of the fundamental underpinnings of most labor agreements. It is an element that is often fought for, influences many other aspects of the agreement, and affects many elements of management's ability to assign work. There are many approaches to integrating seniority lists between contracts.

Additional determining elements for seniority include:

- Different unions have different approaches to full and part time employees.
- Movement within a bargaining unit to different job classes or work statuses can be complicated.
- The right to contract out operations is often a subject in labor negotiations.

Following seniority, in its level of complexity when integrating bargaining units, is wages and benefits. The most likely scenario is that wages and benefits would gravitate to the highest-cost existing agreement. While not necessarily required, this likely outcome could have the effect of raising overall wage expense throughout the new organization. Among key benefit issues that would require resolution would be the fact that most public employees are part of the Public Employee Retirement System (PERS), while private employees are not. This would be a critical element of the negotiation.

Other complications would arise with the potential integration of existing public and private employees. Among the issues that might arise is whether the employees would be subject to rules of the National Labor Relations Board (NLRB) at the federal level or the Miles-Milias-Brown Act at the State level. While State law would likely govern, the resolution of this element would establish under what rules negotiations would be conducted.

Agency Staffing

In any consideration of system integration, the question of staffing of the resulting agency would loom large. The staffing levels of each of the three transit operators is presented in Figure 2.

Figure 60 Existing Transit Operator Staffing Levels

City of Santa Rosa	Sonoma County Transit	City of Petaluma
Deputy Director - Transit	Transit Systems Manager	Transit Division Manager
Transit Planner (2)	Transit Specialist (2)	Senior Transit Specialist
Administrative Analyst	Senior Office Assistant	Transit Travel Trainer & Marketing Assistant
Administrative Secretary	Department Analyst	MV Transportation (25 FTE)
Technology Coordinator	Accountant*	
Marketing and Outreach Coordinator	Office Assistant*	
Transit Superintendent	Transdev (100 FTE)	
Senior Administrative Assistant (2)	Volunteer Center (30 FTE)	
Field Supervisors (5)		
Transit Service Representatives (3)		
Bus Service Workers (3)		
Bus Operators (44 FT; 12 PT)		
MV Transportation		
* Not a direct employee. County overhead. FTE = Full time employee		

Each of the transit managers reports to the public works director of the respective jurisdiction. The staffing structure varies from that point. Petaluma Transit's transit manager has two direct employees to handle system management duties. The management team then oversees the contract management company, MV Transportation. Sonoma County Transit has four direct employees reporting to the transit manager. These employees assist with all aspects of system management. Two positions are designated within the County administrative structure to fulfill transit support duties. This County transit management team then oversees contracts with Transdev for fixed route services and with the Volunteer Center of Sonoma County for paratransit services. All other support personnel (e.g., dispatchers, mechanics, etc.) are employees of the contractor.

Santa Rosa CityBus has a more robust staffing structure than either Sonoma County Transit or Petaluma Transit. The Santa Rosa CityBus organization includes two transit planner positions, a customer service representative, and three transit service representatives among other support personnel. Santa Rosa CityBus also employs five field supervisors. It is important to note a large part of their more robust staffing structure relates to the fact that operations take place in-house; whereas the corresponding jobs for the other agencies would be counted as contracted staff, except for the Transit Service Representatives. In comparison with other agencies' contracted full

time employees, the same types of positions (superintendent, customer service, field supervisors, fuelers, etc.) are in Santa Rosa. Santa Rosa is also the largest city in Sonoma County.

The management and technical staff of the three operators includes some overlap of skills and abilities. In a full integration model, some savings may result from resolving duplication. Short of full integration, some efforts are underway to make efficient use of staff resources between the operators. Santa Rosa CityBus is working with Petaluma Transit to craft an agreement to assign a planner to Petaluma Transit on a part time basis for a share of cost. Such creative approaches should be expanded in models short of full integration.

The staffing levels in Figure 2 are of employees who are dedicated to transit functions within each jurisdiction. They manage transit directly and are fully assigned to transit duties. Because each operator is currently structured as a department within a local government jurisdiction, other support activities are provided to transit by the larger organization. This is typical of city or county structures, and means that important functions such as human resources, accounting and finance, legal services, and IT are provided from outside of the direct management of the transit operation. These services are typically charged to transit through some form of allocation process or sometimes as a direct charge, though not in a direct reporting relationship.

An important consideration relative to any form of consolidation is the impact on the administrative structure of the parent jurisdiction if all support functions are then transferred to a new consolidated organization. The new organization would typically arrange for direct oversight and control of support functions formerly provided by the parent agency. This could have significant consequences for the agency depending upon how large the allocation of overhead is to the transit function. Figure 3 provides detail on the existing overhead charges by each jurisdiction to the transit department.

Figure 61 Overhead Charges by Jurisdiction

Description	Santa Rosa CityBus	Sonoma County Transit	Petaluma Transit
Overhead	$956,795	$639,334	$98,415
IT Cost Recovery	$165,025		$62,277
General Services (mail/copy)			$4,273
Risk Management			$31,846
Total	**$1,121,820**	**$639,334**	**$196,811**

Experience with other transit consolidations suggests that as new agencies are formed and take on responsibility for all operating and overhead functions, they use the former overhead expense to support the new costs.

Depending upon the size of the new organization, decisions are made as to whether to hire specific functional professionals or to procure such services from outside the new agency. With the relatively small size of some new transit agencies, it is not always cost effective to hire staff for some functional areas. The contracting approach often serves well.

Yet, even within the contracting concept, there are optional approaches. For example, when Soltrans was first formed, it purchased accounting and finance services from another city in Solano County. Eastern Sierra Transit Authority (ESTA) also purchased accounting services from

one of its member jurisdictions. Using such an approach can, to some extent, mitigate the impact on a jurisdiction of losing the funds, and possibly positions, associated with overhead support.

Forming a stand-alone transit agency from city or county departments brings managerial challenges. As transit department heads, the managers in Sonoma County report up through a chain that includes the public works director and either a city manager or county executive. Responsibility to manage and work with the governing board lies at the top level. All duties, from preparing agendas, to developing policy recommendations, to creating and implementing business functions, are shared, if not directed, at that level. A new organization's chief executive is responsible for all aspects of leadership, including the duties formerly performed under the department structure, with additional responsibility for board-management relations, employee-related functions, and ultimate financial performance. This change in leadership duties requires a serious assessment of necessary skills.

3 FINDINGS

The labor setting among the three participating transit providers is complex and presents challenges to full integration. The existence of multiple unions, some representing public and some representing private employees, means that integration would require substantial legal review as well as parties willing to participate in the process. However, just as companies in industries like commercial air travel can merge and overcome such challenges, so can willing partners in a transit integration.

As part of the TIES project, it is recommended that the consulting team meet with jurisdiction human resource and labor relations officials to discuss the complexities and legal constraints of integration resulting from existing labor representation. Such a dialogue could offer guidance to all study participants concerning their willingness to pursue such a challenging agenda.

Should technical discussions of the labor issues suggest that an opportunity does exist, then the dialogue should be elevated to city manager and county executive level to assess interest regarding addressing this potential obstacle.

Significant overlap remains between labor and governance. The intent of this paper is to clarify what some of the issues are related to consolidating labor pools. Other governance options remain that would enhance integration, but those options may not include full consolidation.

BACKGROUND DOCUMENT REVIEW

January 2019

1 OVERVIEW

The Transit Integration and Efficiency Study seeks to find opportunities to coordinate or integrate aspects of transit service among the three local bus transit providers in Sonoma County: Sonoma County Transit, Petaluma Transit, and Santa Rosa CityBus. To do that, it is important to understand planning efforts to date, the goals of each agency, and the regional planning context in which the three agencies operate.

The Metropolitan Transportation Commission (MTC), in coordination with local and state agencies, develops and periodically (approximately every four years) updates a long-range Regional Transportation Plan (RTP). In addition, it periodically publishes a Transportation Improvement Program (TIP), which implements the RTP by programming federal and state funds to transportation projects within the RTP. In order to support MTC's planning and fund programming responsibilities, MTC requires each transit operator receiving funding through the TIP to prepare, adopt, and submit a Short Range Transit Plan (SRTP) to MTC in advance of each TIP cycle. An SRTP's planning horizon must be a minimum of ten years, and must reflect expected capital expenditures and revenues as well as forecasted operating costs and revenues.

This memorandum provides a brief summary of the relevant short and long range plans published by the transit systems in Sonoma County, to provide a baseline understanding of the priorities and goals of the transit agencies. Regional planning documents that offer more context or have an impact on the actions of the transit agencies are also included. This project will build upon those priorities to explore where cooperation, coordination, or integration could be explored in the county. Documents reviewed here are listed in Figure 1.

Figure 1 Documents Reviewed

Year	Document	Agency Affected	Plan Type	Author
2014	Improving Transit Integration Among Multiple Providers	All	Case Studies	Transit Cooperative Research Program (TCRP)
2015	Seamless Transit	All	Regional	San Francisco Bay Area Planning and Urban Research Association (SPUR)
2016	Short Range Transit Plan	Petaluma Transit	Short Range	City of Petaluma
2016	Reimagining CityBus	Santa Rosa CityBus	Short Range	City of Santa Rosa
2016	Short Range Transit Plan	Santa Rosa CityBus	Short Range	City of Santa Rosa
2016	The Art of Aging – The 2016-2020 Area Plan and Community Report	All	Regional	Sonoma County Area Agency on Aging
2016	Moving Forward 2040	All	Long Range	Sonoma County Transportation Authority
2017	Shift Sonoma County – Low Carbon Transportation Action Plan	All	Regional	Sonoma County Transportation Authority
2017	Short Range Transit Plan	Sonoma County Transit	Short Range	Sonoma County Transit
2017	Annual Report 2017	SMART	Regional	SMART
2017	Plan Bay Area 2040 Regional Transportation Plan	All	Long Range	MTC

SHORT RANGE PLANS

In compliance with MTC's SRTP requirement to be eligible for TIP funding, Sonoma County Transit, City of Santa Rosa, and City of Petaluma each adopted a new SRTP in 2016 or 2017. Santa Rosa went a step further, producing a comprehensive operations analysis in 2016; a plan that examined CityBus's system design, service allocation, and organizational policies and put forth recommendations for systemic operations changes.

Sonoma County Transit Short Range Transit Plan, Sonoma County Transit (2017)

Sonoma County Transit's SRTP identifies the goals and objectives guiding the service improvements proposed in the plan – they are as follows:

Fixed Route Goals

7. Provide a safe, reliable, comfortable, and cost-effective fixed-route transit system for residents of and visitors to Sonoma County, serving all major cities in the County and, to the extent feasible, communities in the County's unincorporated areas.
8. Make every effort to provide a reliable and comfortable fixed-route system that is responsive to the various specialized needs of residents of and visitors to Sonoma County.
9. Design the County's fixed-route transit system to provide the most convenient and efficient service to residents of and visitors to Sonoma County at the lowest possible cost.

Demand Response Goals

1. Provide efficient, safe and professional quality paratransit service for the eligible residents of and visitors to Sonoma County that serves all areas in the County comparable with the fixed-route transit system.
2. Make every effort to provide reliable and comfortable paratransit service for the eligible residents of and visitors to Sonoma County that is in compliance with the provisions of the Americans with Disabilities Act (ADA).
3. Design the County's ADA paratransit service to provide the most convenient and efficient service to all eligible clients at the lowest possible cost.

Sonoma County Transit's SRTP identifies the following transit service improvements for implementation between FY 2017 and FY 2025:

- 2018: Launch six Connector bus routes ("50-series") to link up to SMART Rail stations.
- 2020: Add additional weekday express trips on routes 20, 30, 44, 48, and 60.
- 2023: Add additional weekday peak commute trips on routes 20, 30, 44, 48, and 60.
- 2016-2025: Make periodic system-wide coordination and schedule adjustments for improved schedule adherence and transfer alignments.

Santa Rosa CityBus Short Range Transit Plan, City of Santa Rosa (2016)

The service plan proposed in Santa Rosa's FY 2016 – 2025 SRTP is drawn from the Reimagining CityBus Plan, listed below. Santa Rosa's SRTP identifies goals and objectives for CityBus. These include:

1. Provide high-quality services to our patrons.
2. Ensure sustainable growth of the transit system.
3. Support development of an effective multi-modal transportation system in Sonoma County.
4. Seek ways to meet the needs of an evolving and diverse community.

The SRTP also identifies performance measures and standards for both its fixed route and paratransit services. Finally, the SRTP identifies a cost and revenue forecasts for both operating and capital functions. These forecasts are illustrated in Chapter 3.

Reimagining CityBus, City of Santa Rosa (2016)

Reimagining CityBus is Santa Rosa's Comprehensive Operational Analysis (COA) completed in 2016. It examines existing service performance and recommends strategies for improving the system. The study finds that the CityBus system design is heavily weighted towards geographic coverage (as opposed to the often competing goal of serving higher-ridership areas and corridors). The study identifies a number of issues with trying to provide such a high level of coverage with constrained resources:

- The system includes excessive one-way routes and segments, and circuitous and indirect route geometry.
- The system generally relies on timed transfers, but growth and traffic congestion have reduced the effectiveness of some timed transfers.
- Some routes duplicate Sonoma County Transit service.
- CityBus does not serve high-ridership markets, such as students and high-density employment, as well as it could with better peak frequencies, longer service hours, or direct connections to high-demand destinations.
- Given the low densities in some portions of Santa Rosa, CityBus currently provides more service than is warranted.

Reimagining CityBus proposes two sets of improvement recommendations for implementation over the next ten years (implementation has already begun as of this writing). Phase I proposes a suite of improvements that are approximately revenue-neutral over the next five years, while Phase II proposes a suite of improvements over the next six to ten years for which additional funding would need to be identified. Phase I improvements, mostly reallocations of service from low-ridership areas to higher-ridership areas and minor routing changes to provide bi-directional service to strong anchor points (e.g., retail centers and schools), has been completed. Phase II improvements include increased weekend and evening service, increased frequency on Mendocino Avenue (the highest demand area of Santa Rosa), increased frequencies throughout the system, route re-designs for improved directness and bi-directionality, and a new crosstown route. Phase II is underway now.

Petaluma Transit Short Range Transit Plan, City of Petaluma (2016)

Petaluma Transit's SRTP identifies the goals and objectives guiding the service improvements proposed in the plan – they are as follows:

1. Maximize service availability, reliability, and convenience.
2. Maximize operating efficiency without negatively impacting service quality.
3. Operate a productive service that remains affordable to the key transit markets.
4. Ensure ongoing service monitoring, evaluation, and planning.
5. Actively participate in the development approval process.
6. Adhere to prudent budgeting and financial practices.

7. Promote public/private partnerships to increase revenue and ridership.

Petaluma Transit planned the following three service increases in FY 2017 and 2018, using existing funding sources:

1. Modify and expand service with routes 24, 1, and 5 to support SMART (FY 2017). (These routes have since been modified and renamed to routes, 24, 10 and 501, respectively. Increased headways have been added to route 24.)
2. Increase afternoon service on routes 11 and 2 (FY 2017).
3. Introduce the "Silver Shuttle" deviated fixed-route service (FY 2018).

The following mid- and long-term recommendations are not included in Petaluma Transit's 10-year operating plan, because they cannot be supported with existing operating funds:

- Modify/expand service to support SMART on weekends (mid-term).
- Improve frequency, with elongated running time cycles and all day 20-minute frequencies on routes 2, 3, 11, and 33, and additional frequency improvements on routes 1 and 24 (long-term).
- Convert routes 2 and 11 to bus rapid transit (BRT) lines (long-term).
- Improve crosstown service through a modified route 11 or establishing an additional crosstown route (long-term).

LONG RANGE PLANS

MTC and SCTA have each produced long range plans with a planning horizon of 2040.

Plan Bay Area 2040 Regional Transportation Plan, MTC (2017)

Plan Bay Area 2040 is an update to Plan Bay Area, MTC's long range regional transportation plan. The plan's first edition, adopted in 2013, was the Bay Area's first regional plan to incorporate a state-mandated sustainable communities strategy and had a horizon year of 2035. As a regional transportation planning agency (RTPA) and metropolitan planning organization (MPO), state and federal laws respectively require MTC to update a fiscally constrained regional transportation plan every four years, that addresses a planning horizon of at least 20 years. MTC collaborated with the Association of Bay Area Governments (ABAG), the region's council of governments, to develop Plan Bay Area 2040. The plan makes recommendations for land use, transportation, and housing to accommodate regional growth and meet state-set targets for reducing metro area transportation emissions. Plan Bay Area 2040 sets the following transportation goals:

1. Increase non-auto mode share.
2. Reduce vehicle operating and maintenance costs due to pavement conditions.
3. Reduce per-rider transit delay due to aged infrastructure.

A key component of the plan is its final transportation project list, which contains major transportation infrastructure and service projects put forth by local transportation planning agencies and divisions across the 24-year planning period. The following three transit projects in Sonoma County are included, and budgeted to require $469 million for implementation:

- SMART Petaluma Infill Station ($11 million)
- Enhance bus service frequencies in Sonoma County ($409 million)

- SMART Rail Extension to Windsor + Environmental to Cloverdale + Bike Path ($49 million)

MTC is currently conducting preliminary planning for Plan Bay Area 2050, the successor of Plan Bay Area 2040, with planning work scheduled to begin in August 2019.

Moving Forward 2040, SCTA (2016)

Moving Forward 2040 is Sonoma County's Comprehensive Transportation Plan (CTP). MTC requires each county to update their CTP approximately every four years to be incorporated into the Regional Transportation Plan (RTP). The plan analyzes the current state of transportation (among all modes) in the county, and then identifies needs and develops strategies for meeting those needs. The strategies inform how funding will be programmed throughout the county until the next CTP is developed.

The plan reviews general demographic and economic trends in the county, including:

- The population in Sonoma County has more than tripled since 1960. The majority of growth was in Santa Rosa, but smaller cities and unincorporated areas have grown as well.
- The median age has increased from 30 in 1960 to 40 in 2010.
- Households with children under 18 peaked in 1970 at 41% of total households. The number declined to 28% in 2010.
- Sonoma County has grown more diverse—people of color comprised 25% of the population in 2010, as compared to 2% in 1960.
- According to the Center for Neighborhood Technology, the average Sonoma County household spends a combined 59% of its income on housing (37%) and transportation (22%). A community is generally considered affordable when families spend 45% or less of their household income on housing and transportation–therefore, Sonoma County is facing affordability issues.

The plan uses Census statistics to identify Communities of Concern–areas where 30% or more of households have incomes less than 200% of the federal poverty level. These areas are focuses for transportation investments, as the relationship between equity and mobility continues to be an increasingly central focus of regional transportation policy discussions.

Transportation trends highlighted in the plan include:

- Only 2% of commuters in Sonoma County commuted via transit in 2010, a slight decrease from 3% in 1980.
- More people are working at home, which places less of a strain on the County's transportation system.

Specific to transit, the report highlights recent investments that have improved transit in Sonoma County, including:

- Real time information
- Clipper® (the Bay Area's universal fare media)
- Recently constructed or improved transit hubs, such as the Copeland Transit Mall, the Cotati Depot, and the Healdsburg Historic Depot
- The recently opened Sonoma-Marin Area Rail Transit (SMART)

REGIONAL DOCUMENTS

Shift Sonoma County, SCTA (2017)

Shift Sonoma County is a planning document that identifies opportunities for shifting trips in Sonoma County away from single-occupancy vehicles towards other modes, thereby reducing overall vehicle miles traveled and Greenhouse Gases (GHGs) emitted. The project is a collaboration between the ten municipalities in the county, SCTA, the Regional Climate Protection Authority, and other local and regional partners. The primary goals of the project are to:

1. **Reduce greenhouse gases from transportation.** Transportation causes over 53% of all GHGs in Sonoma County.
2. **Reduce vehicle miles traveled (VMT).** Congestion accounts for over 44,000 hours of lost time each year.
3. **Promote safety and health.** Crashes cause six injuries or fatalities per day, on average, in Sonoma County.
4. **Promote economic vitality.** The average Sonoma County household spends about $1,160 per month (or 22% of the average household budget) on transportation.

Population, housing, and employment are expected to continue to grow in Sonoma County. The strategies identified in the plan aim to reduce overall VMT and GHGs in a growing region by reducing VMT per capita and the GHGs admitted by the motor vehicle fleet. The plan identifies strategies in five groups:

1. Transportation Demand Management (TDM)
2. Bike share
3. Car share
4. Electric Vehicles
5. Charging Infrastructure

The plan does not identify any specific strategies for improving transit service in Sonoma County, but focuses on other modes' connections with transit and the encouragement of transit use through TDM strategies, such as employer coordination with transit agencies.

The Art of Aging, Sonoma County Area Agency on Aging (2016)

Every four years, the Sonoma County Area Agency on Aging produces a report including a comprehensive needs assessment, documentation of current conditions, and goals and objectives for serving the county's senior population (over 118,000 people in 2016). The plan identifies the following five needs:

- The ability to live at home during retirement
- The ability to stay independent at home
- Access to information about available senior services
- Access to available senior services
- Access to healthcare services

The plan identifies transportation services as a top funding priority. This encompasses expanding fixed-route transit, improving transit coordination, and increasing door-to-door demand response service. One plan objective specifically addresses collaboration with local transportation service providers:

> "3.12 Collaborate with public, nonprofit, and private organizations, including service providers, and transit/paratransit operators, to address the community's transportation gaps and barriers and develop resources to coordinate and expand existing transportation options for older adults and people living with disabilities in Sonoma County."

Seamless Transit, SPUR (2015)

San Francisco Bay Area Planning and Urban Research Association (SPUR) conducted an extensive review of the 24 different transit agencies operating in the greater Bay Area to identify the key barriers to creating a more seamless transit network. The barriers identified included:

- Poor information for navigating a multi-operator trip
- Difficult transfers between operators
- Financial penalties for riders using more than on operator
- Limitations of the current iteration of Clipper as the universal fare payment technology
- Gaps in the region's transit network and duplicative services

Generally, Sonoma County's multi-operator transit system shares these barriers, which means the solutions identified in the SPUR report are also useful for Sonoma County. The solutions identified to those five barriers are:

1. Help travelers understand the value of the region's transit system and how to use it.
2. Standardize fares and develop passes that encourage use of the region's entire transit system.
3. Develop transit hubs that make transferring easy.
4. Use an integrated approach to transit network design.
5. Use institutional practices to promote integration.

SMART Annual Report (2017)

The California State Legislature established the Sonoma-Marin Area Rail Transit (SMART) District in January 2003 to plan, construct, and operate a commuter rail service in Marin and Sonoma Counties. The bulk of the project was funded by a one-quarter cent sales tax in both counties, passed by voters in 2008. Phase 1 of the service, which operates between the Sonoma County Airport and San Rafael, began operation in August 2017. Phase 2 is expected to extend service north to Cloverdale and south to Larkspur.

Shortly after the service launched, beginning on October 9, 2017, Sonoma County and the surrounding region in Napa and Mendocino Counties experienced a devastating series of wildfires. SMART service was still provided (free of charge) throughout the duration of the wildfires.

Over 640,000 trips were taken on SMART between September 2017 and August 2018, with an average of 2,200 riders per weekday and 1,400 riders per weekend day.

CASE STUDIES

The Transportation Cooperative Research Board (TCRP) published a seminal report that details the experiences of agencies who have tried various levels of coordination and integration. Three case studies from the report offer useful examples of different integration approaches: a unified regional transit system, centralized fare media, and a coordinated multi-agency hierarchy. Solano County Transit's joint powers agreement (JPA) offers an additional recent example of multi-agency integration; the Governance and Coordination Review memorandum profiles this case study as well.

TCRP Report 173: Improving Transit Integration Among Multiple Providers. Volume 1 (2014)

This TCRP report examines the benefits and challenges of effectively integrating multiple transit agencies, and provides guidance on how to achieve success in an integration of agencies. The overarching takeaways are that integration is a process, it requires effort from all participating agencies, it can result in cost savings (but that is not a given), and defining measures for success is a key part of realizing a successful integration.

Integration can yield significant benefits; however, these are not always quantifiable. The following is a sampling of possible quantitative and qualitative benefits from integration. Not all of these are critical for every integration process; it is more important to identify benefits that are critical to agencies involved before embarking on an integration effort, and focus action steps on realizing those prioritized benefits.

- Quantitative Benefits:
  - ridership growth
  - improved performance
  - reduced passenger wait times between transfers
  - lower operating costs
  - improved vehicle spare ratio
- Qualitative Benefits:
  - a superior passenger experience
  - residents' improved access to regional locations
  - better customer information
  - better interagency relationships
  - increased public support for transit

The report uses 19 case studies to illustrate various best practices and steps in the integration process. Four of these case studies are summarized below:

Butte County B-Line, Butte County, California

Butte Regional Transit's B-Line in Butte County, California, represents the consolidation of six transit operations serving a mix of small urban and rural communities. The Butte County Association of Governments (BCAG) led the integration process, beginning with an exploratory consolidation study in 1999. Following the study, Committee members agreed to consolidate administrative functions, and transferred these previously separated functions from the County

and the cities to BCAG. A critical challenge in this process was determining how to share operating costs among the participating jurisdictions. In 2004, interagency negotiations produced a new formula that accounted for localized population and ridership characteristics. Today, BCAG administers and operates Butte Regional Transit as a single, unified system, offering fixed-route and paratransit services.

ORCA Universal Fare Card, Puget Sound, Washington

The ORCA card ("One Regional Card for All") is a contactless smart card used in the four-county Central Puget Sound region for fare payments with seven public transit providers; it allows riders to use one fare medium for payment with any of these seven operators. ORCA is the current iteration of a long history of fare integration initiatives pursued in the Central Puget Sound. An additional component of the ORCA program, is the "Puget Pass" a fixed-price monthly pass for unlimited trips on any service in the four-county region, except the Washington State ferries. The process to integrate fare policies and technologies across all seven transit providers was costly and time-intensive. However, the resulting ORCA program has been widely praised as a success locally and nationally. Local residents and staff report that they cannot imagine returning to operations as they were before integrating fare mediums.

Twin Cities Region, Minnesota

The Minneapolis–Saint Paul region uses several initiatives that encourage, and in some instances, mandate, that transit providers work together. Metro Transit, a division of the Metropolitan Council, anchors the regional transit network in and around Minneapolis and Saint Paul, and coordinates with six smaller transit agencies to serve the region's suburban communities. The following are examples of how the Metropolitan Council and Metro Transit lead regional service coordination:

- The Metropolitan Council purchases and owns all transit service vehicles in the region, streamlining fleet management.
- Service providers share facilities operations protocols and performance standards.
- Metro Transit operates a Transit Information Center that serves as a transit information clearinghouse, and provides regional trip planning assistance.
- Along the major corridors, urban and suburban service providers coordinate schedules and follow the same operating procedures to serve designated multi-agency stops.
- The region uses a unified fare structure.
- All seven agencies use one unified route numbering scheme.

Solano County Transit (Soltrans), Solano County, California

Solano County Transit was formed through a Joint Powers Agreement. The JPA agreement was initially approved by a Coordinating Committee formed by the participating jurisdictions in May, 2010. The cities of Vallejo and Benicia and the Solano Transportation Authority were the entities that formed the new agency. It was finalized through additional negotiations and became operational in 2011.

The agreement forming Soltrans called for a governing structure consisting of five voting members and one Ex-Officio Member. The voting members consisted of two elected representatives of each participating city. Those members would be appointed to the Soltrans

Board by each city. The fifth member was designated as the Solano County representative to MTC (as long as that member did not represent most or all of either participating city). The Ex-Officio member was appointed by the Solano Transportation Authority.

The Coordinating Committee established to negotiate the formation of the JPA consisted of officials of each jurisdiction including the Mayors of both cities. In addition to this Committee, a Working Group of technical experts was convened to provide technical background and information to the Coordinating Committee. This group consisted of staff members from each participating agency as well as consultants with experience in agency formation. These groups worked over a period of months to identify the many technical details that would be at issue in forming the new agency. This included such issues as consolidation of service contracts, asset transition to the new agency, personnel decisions for new agency management, analysis of impacts of the formation on the cities of Vallejo and Benicia, and the transfer of grants and other funding to the new organization.

The other Solano cities of Fairfield, Vacaville, and Dixon chose not to participate in the new agency formation. Provisions were included in the JPA agreement regarding future Board structure should any or all of these jurisdictions eventually join Soltrans. In anticipation of potential membership, the Transportation Authority appointed the Mayor of Fairfield as the initial Ex-Officio member of the Board in order to encourage future consideration of participation.