



Solano Transportation Authority

**Coordinated  
Short Range Transit Plan (SRTP)**

Final SRTP

September 11, 2013



# Contents

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|          |   | Page      |
|----------|---|-----------|
| <b>1</b> | <b>Background and Summary</b>   | <b>1</b>  |
| 1.1      | Format of the Coordinated Solano County Short Range Transit Plan Document | 1         |
| 1.2      | Background for Solano County Coordinated SRTP                             | 1         |
| 1.3      | Summary of Coordinated Solano County SRTP                                 | 3         |
| 1.4      | Summary of Transit Operators’ SRTPs                                       | 9         |
| 1.5      | Transit Sustainability Plan (TSP)   | 15        |
| <b>2</b> | <b>Coordination Analysis</b>  | <b>17</b> |
| 2.1      | Introduction  | 17        |
| 2.2      | Service Planning Coordination   | 19        |
| 2.3      | Fare Coordination   | 37        |
| 2.4      | Capital Planning Coordination   | 46        |
| <b>3</b> | <b>Individual SRTPs</b>   | <b>58</b> |
|          | Dixon Read-Ride   |           |
|          | Fairfield and Suisun Transit (FAST)                                       |           |
|          | Rio Vista Delta Breeze (RVDB)   |           |
|          | SolTrans (Solano County Transit)  |           |
|          | Vacaville City Coach (VCC)  |           |

## Tables

|  |           |
|--|-----------|
| <b>Table 1: Level of Service at Vallejo Intermodal Station (effective January 2013)</b> .....      | <b>24</b> |
| <b>Table 2: Level of Service at Fairfield Transportation Center (effective January 2013)</b> ..... | <b>24</b> |
| <b>Table 3: Level of Service at Solano Town Center, Fairfield (effective January 2013)</b> .....   | <b>24</b> |
| <b>Table 4: Level of Service at Suisun Amtrak Station (effective January 2013)</b> .....           | <b>25</b> |
| <b>Table 5: Level of Service at Vacaville Transportation Center (effective January 2013)</b> ..... | <b>25</b> |

**Table 6: Level of Service at Market Lane PnR Lot, Dixon (effective January 2013) ..... 25**

**Table 7: Performance Evaluation of Intercity Transit Funding Agreement Routes ..... 30**

**Table 8: Solano Fixed Route Transit Operators’ Current Scheduling Practices ..... 31**

**Table 9: Options for Inter-Operator Scheduling Coordination ..... 33**

**Table 10: Proposed Common Schedule Change Timeline ..... 36**

**Table 11: Solano Transit Operators Fare Structure ..... 38**

**Table 12: Number of Transit Operators Required for Intercity Travel (excludes RVDB #54) ..... 39**

**Table 13: Minimum Adult Cash Fare Required for Intercity Travel (excludes RVDB #54) ..... 40**

**Table 14: Standard Fixed Route Fare Example 1..... 42**

**Table 15: Standard Fixed Route Fare Example 2..... 43**

**Table 16: Ten-Year Consolidated Capital Plan by Project Type ..... 49**

**Table 17: Consolidated Fleet Replacement Schedule ..... 50**

**Table 18: Ten-Year Consolidated Capital Plan by Funding Source..... 53**

**Figures**

**Figure 1: Countywide Transit Network Map..... 22**

**Figure 2: Consolidated Capital Needs by Project Type ..... 48**

**Appendices**

**Appendix A**

Transit Sustainability Plan – Financial Conditions Assessment

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# 1 Background and Summary

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## 1.1 Format of the Coordinated Solano County Short Range Transit Plan Document

This Coordinated Solano County Short Range Transit Plan (Solano County Coordinated SRTP) document contains three chapters and one appendix. The first Chapter provides the Background and Summary of the Coordinated SRTP and serves as the Executive Summary for the document. The second Chapter presents a Coordination Analysis Technical Memorandum developed to address the recommendations of MTC Resolution 4060, described in the next section. The third Chapter provides individual SRTPs of the five transit operators in the county, in accordance with MTC Resolution 3532. Each individual SRTP is a self-contained document, with its own table of contents and appendix.

At the June 12, 2013 STA Board meeting, it was recommended that STA receive and file the Solano Transit Sustainability Plan (TSP) Financial Conditions Assessment. It was further requested that the Assessment be included as an appendix to the Solano County Coordinated SRTP. Appendix A contains the Financial Conditions Assessment.

## 1.2 Background for Solano County Coordinated SRTP

In 2010 the Metropolitan Transportation Commission began the Transit Sustainability Project (TSP), a regional effort to address transit capital and operating shortfalls and to improve transit performance for the customer. In May 2012 MTC adopted Resolution 4060 which contains several policies, strategies and recommendations resulting from the TSP findings. One of the Resolution 4060 recommendations was to conduct multi-agency Short Range Transit Plans (SRTP) at the county or sub-regional level to promote interagency service and capital planning.

Another recommendation was specific to Solano County:

County-level SRTP work is underway in Solano County. MTC will provide funding to the Solano Transportation Authority (STA) to complete the analysis to better inform service planning throughout the county. STA and the Solano transit operators are to use this process to identify service improvements, performance objectives and potential service functional and institutional consolidation opportunities.

On March 12, 2012, STA approved a scope of work to perform a Solano County Coordinated SRTP in conjunction with an I-80/I-680/I-780/SR 12 Transit Corridor Study. In addition to the customary requirements for the development of individual transit operator SRTPs, at MTC's request STA included preparation of a Coordination Analysis Technical Memorandum in the scope of work for the

Solano County Coordinated S RTP. The specific work tasks requested by MTC and addressed in the Coordination Analysis are:

**1. Different Fare Structure and Discounts/Standard Fare Structure/Fare Reconciliation**

A. Develop a standardized fare structure (may just include standard fare instruments, but could also include standard dollar amounts for each) for Solano County Transit Operators

B. Revise current fare policies to conform with Clipper

C. Analyze the potential revenue impact and/or gains to Solano County operators with the implementation of a standardized fare structure

**2. Enhanced Transit Coordination of Capital Planning**

A. Develop and combine data for capital needs for transit operators in Solano County

B. Data should have the same components as the individual capital planning scope of work in the S RTP

C. Identify potential funding sources to meet capital needs

D. Show funding need in graphs by year, type of capital, and operator

E. Identify potential joint procurement opportunities

**3. Enhanced Coordination of Transit Service Planning**

A. Identify connection problems of local routes to intercity routes and other regional transportation systems such as BART, the Capital Corridor, and the Bay Area Water Emergency Transit Authority (WETA).

B. Identify changes to enhance service for intercity travel as well as intercity to local, local to intercity, and intercity to intercity/regional

C. Identify potential coordination needs as ridership increases in the future

D. Identify changes needed to align the schedule change calendar among Solano County transit operators and what scheduling software changes should be made, if any to facilitate schedule coordination and customer travel planning

Tasks 3A, B and C are being addressed by the Transit Corridor Study and preliminary findings regarding intercity and inter-operator transit services are incorporated in the Coordination Analysis.

MTC's Resolution 4060 also includes a specific recommendation related to bus scheduling software coordination and is the basis for coordination Task 3.D. (above):

“Integrate bus/rail scheduling software to facilitate schedule coordination and customer travel planning. Establish a regional schedule change calendar.

The Commission finds that schedule coordination between connecting agencies will increase the attractiveness of public transit but that connecting agencies make schedule changes on different dates and in some cases use incompatible scheduling software systems that make schedule integration difficult. This recommendation would align the schedule change calendar for major schedule changes among the region’s operators and require all connecting operators to implement a compatible scheduling software system. Implementation would be subject to each transit agency’s future scheduling system procurement timeline, and, for some agencies, may be subject to negotiation of changes to existing labor contract provisions that govern schedule change dates.”

A fourth coordination task regarding ADA paratransit service coordination was recommended by MTC as well. STA has prepared a separate Mobility Management Plan (MMP) that addresses ADA paratransit coordination. Relevant sections of the MMP are also referenced in the SRTPs and Coordination Analysis.

## **1.3 Summary of Coordinated Solano County SRTP**

### **1.3.1 Coordination Analysis**

#### **Service Planning Coordination**

The organizational structure for collaborative intercity transit service planning in Solano County is the SolanoExpress Intercity Transit Consortium (Consortium) which includes all Solano operators plus STA and the County of Solano. Established in 1997 by STA and the cities and county of Solano through an amendment to the STA’s Joint Powers Agreement (JPA), the Consortium coordinates intercity services that operate within Solano County and between Solano County and Contra Costa, Napa, Yolo and Sacramento counties. The Consortium also functions as an official advisory committee to the STA Board and staff on matters pertaining to planning and implementation of intercity transit.

The effective functioning of the Consortium relies on inter-agency cooperation at all levels: staff, management, and boards. The level of cooperation is apparent in the many shared projects and programs which have originated out of the Consortium, such as bus, van and shelter purchases and intercity transit and taxi service agreements. Such cooperation is currently through consensus building and guided by the STA’s JPA and a Memorandum of Understanding (MOU) between the participating agencies that describes the purpose, authority, funding and responsibilities of the Consortium.

The Intercity Transit Funding Working Group (ITFWG) was formed by STA to develop funding stability and equitable cost sharing for intercity services. ITFWG is currently comprised of all funding participants including the County of Solano, STA, and all Solano County transit operators, except Rio Vista. The ITFWG is considered an efficient and effective mode of information dissemination and coordination between the member agencies.

In late 2012, the STA Board approved a new Intercity Transit Funding Agreement for SolanoExpress Routes for Fiscal Year (FY) 2012-13 and 2013-14. Under the revised agreement, SolTrans, Dixon, Fairfield, Suisun City, Vacaville, and Solano County contribute to the Solano Express network and as a result, make most policy decisions on the service. The service continues to be operated by SolTrans and FAST. The agreement focuses on three principles – stability, efficiency and flexibility. Included in the agreement is a requirement to develop a list of service design standards and performance benchmarks that will be used to design and then evaluate the intercity services. The Transit Corridor Study is developing a set of intercity transit service performance benchmarks based on best practices and to ensure sustainability of intercity services over the long term for consideration by the Consortium and STA.

### **Schedule Coordination**

Operators typically provide each other with the printed and/or Excel files schedules of their connecting bus routes to facilitate schedule coordination at designated transfer points. When changes to local bus services are proposed, the operator initiating the change informs connecting intercity bus operators and provides the changes so the other operators can consider coordinating their intercity bus schedules with the local bus schedules. In the opposite situation, when changes to intercity bus service are proposed, the operator initiating the change informs the Consortium and only implements changes with approval of the Consortium and, ultimately, STA.

MTC requested that considerations be given to integrating bus/rail scheduling software to facilitate schedule coordination and customer travel planning. The advantages and disadvantages of using computerized schedule systems software, such as Trapeze™, to integrate transit services and increase customer convenience were considered.

In summary, the Consortium might consider continuing the system of coordinating Excel files for the next 2 or 3 years, but doing so on a regularly scheduled basis and incorporated into the Schedule Change Calendar recommended below. The need for pulse scheduling should be considered as schedule changes are being proposed. During this 2-3 year time period, SolTrans will have fully implemented Trapeze for its purposes, potential intercity bus service changes will be defined in the Transit Corridor Study, and further information about the need and benefit of using common software for scheduling purposes may be available. At that point, utilizing existing Trapeze software owned by SolTrans, as well as employing SolTrans staff to provide for inter-operate schedule connectivity and export of schedules to 511 on behalf of the four fixed route operators, can be further considered for implementation.

## Schedule Change Calendar

As requested by MTC, consideration was given to how the schedule change calendar might be aligned. The benefits of aligning the schedule change calendar are to facilitate synchronizing schedule changes between connecting operators to assure that there is no disruption to connectivity between services due to the offset of time between separate change dates. The following recommendations should be discussed and considered for adoption, as appropriate, by the Consortium:

- For the purpose of assuring inter-operator service connectivity, the Consortium should establish common schedule change dates of July 1 and January 1 of each year;
- The Consortium should consider and discuss procedures to establish a common schedule change timeline for purposes of inter-operator schedule coordination; and
- Operators may make changes to routes and schedules that do not affect established inter-operator connections at any time during the year (for example, minor route changes or schedule adjustments while maintaining the same scheduled time at the connection point) or are urgent and necessary for budgetary reasons.

## Fare Coordination

There are no countywide policies regarding fares for intercity transit travel. Each operator relies on its particular agency's fare policy, staff and operating environment to establish the structure, media and pricing applied to its piece of the countywide transit network. The result is a variety of fare rules, media and prices overlaying a coordinated inter-operator transfer procedure whereby each operator accepts another operator's paper transfers for a fare credit.

It is desirable that fare payment not be an obstacle to transit use and the fare be commensurate to the value of the service customers receive. In addition, for inter-operator fare coordination, it is typical to also avoid or minimize any lost revenue that might be associated with standardizing fares, in particular when one operator has to lower or forego collecting a fare to match another operator. It is reasonable to conclude that current fare payment procedures and pricing for inter-operator travel could be an impediment to inter-operator transit use. Fare coordination to improve and simplify inter-operator travel should be a high priority within Solano County.

MTC has requested that the subject of fare standardization be addressed in Solano County. MTC considers fare standardization to possibly be a means to overcome an impediment to inter-operator transit use imposed by multiple transit operators' fare policies and structures. Inter-operator fare standardization examples were considered to assess the obstacles to implementing standardized fares in Solano County. It was concluded that there are significant fare revenue and ridership impacts associated with standardizing existing fare values, structures and media of multiple transit operators in Solano County.

It is recommended that inter-operator fare coordination be improved to simplify inter-operator travel as planned with the implementation of Clipper. In particular, the following aspects of inter-operator fare coordination should be addressed by the Consortium when developing Clipper Business Rules and during formal requirements capture:

- Designate Clipper as the coordinated intercity fare media accepted by all operators;
- Designate “upgrade” and “express” categories for intercity routes and set Clipper fares based on value of intercity service received: transfer convenience, distance traveled and faster speed of travel, and aspire to avoid fare revenue loss, from those existing riders who would switch to Clipper, on those operators who cannot afford to reduce their current level of fare recovery;
- Provide discounts for frequent travel using pre-paid monthly Clipper passes;
- Give local fare credit for local transfers to/from intercity routes using Clipper and seek consistency in defining the transfer validity period; and
- Seek consistency in defining eligibility for age based Clipper discounts.

### **Capital Planning Coordination**

The primary forum for collaborative intercity transit planning in Solano County is the SolanoExpress Intercity Transit Consortium (Consortium) which includes all Solano operators plus STA and the County of Solano. The Consortium works with STA to secure needed capital and operating funding from local, regional, state and federal resources to sustain the intercity services. In terms of capital planning coordination, this includes developing a list of capital needs, identifying local revenues that are available to cover the associated expenses, and determining whether additional funding is required to fully fund intercity capital expenses. STA advocates on behalf of all Consortium members to request discretionary funding from other sources outside Solano County, including working directly with regional, state and federal partners.

The 10-year consolidated capital program for all five transit operators was prepared. In the near term, there are major spikes in capital requirements in FY2014-15 and FY2016-17, due to the significant cost of constructing major passenger facilities. The total cost of the new Fairfield/Vacaville Intermodal Station at Peabody Road is approximately \$55 million, and the total cost of the multiple projects in and around the Fairfield Transit Center is about \$25 million. Neither of these projects has a full funding plan in place at the present time. The Intermodal station still needs \$14 million in additional funding, and the only committed funding for the FTC projects is \$5.5 million in Regional Measure 2 revenues. The sum total of all other capital expenses in the County through FY2017-18 is less than \$19 million. More than \$16 million of these expenses are anticipated to be funded through committed sources or available reserves. The remaining \$2.7 million will be requested from federal discretionary sources.

Beginning in FY2018-19, the bulk of the required capital expenses are for the intercity bus replacements, with a particularly large contribution required in FY2018-19. The total expense to replace 34 vehicles is over \$29 million, with almost \$25 million coming due within the next ten years. The Consortium members have agreed to a preliminary funding plan which is currently being reviewed by MTC. The two largest sources of committed capital revenues are Regional Measure 2 and TDA-LTF, each of which is expected to comprise more than \$25 million in capital funding over the course of the ten years. Other significant individual sources include Proposition 1B and FTA 5307, which together total more than \$12 million.

In addition to enhancing the process of planning for future capital needs, coordination can also help reduce the cost of delivering capital projects. One of the most significant opportunities in this area is joint procurement of assets, materials, supplies, and services. Joint procurement provides multiple types of benefits to transit operators.

The transit operators in Solano County have established a successful plan for coordinating to meet the capital needs of the SolanoExpress intercity bus services. Given the significant capital costs anticipated in the County over the next ten years, it would be advisable for the operators to extend this coordination to include working collaboratively through the Consortium to meet capital needs for local service as well. The advantages of greater cooperation include the possibility of both short-term and long-term cost savings, which could improve overall financial sustainability for transit in Solano County.

It is recommended that the following topics be discussed by the Consortium:

- Join with SolTrans to study feasibility of transitioning diesel buses to CNG;
- Continue using CalAct to reduce the cost of van and shelter procurements and to standardize paratransit fleets;
- Review fare collection technologies and needs in light of Clipper implementation and identify opportunities for joint procurements; and
- Establish an annual review through the Consortium of all procurement needs for the next 18-24 months.

### **1.3.2 Paratransit Coordination**

Starting July 1, 2013, STA in partnership with the Solano County transit operators launched a Countywide In-Person Americans with Disabilities Act (ADA) Eligibility Program. The goals of the new program are to:

- Make more accurate and consistent ADA eligibility determinations countywide;
- Simplify the ADA certification process for the applicant;
- Ensure high quality paratransit service for passengers who truly need the service; and

- Promote alternative transportation modes for people who may be able to use fixed route and other transportation options.

The current paper-based application process has been replaced with a more personalized in-person process where a qualified professional will interview applicants and, if needed, assess an applicant's physical and functional ability to use fixed route transit. Medical verification from a health care professional will no longer be required.

ADA eligibility assessment centers have been selected in each of the seven cities in the county. In-person assessments will occur weekly in most cities, and as needed for the smaller cities of Dixon and Rio Vista.

CARE Evaluators was selected as the consultant to collaborate with STA and the Solano County Transit Operators to administer a Countywide In-Person ADA Eligibility program that is consistent with ADA federal requirements.

In addition, intercity paratransit services are being offered through a Memorandum of Understanding (MOU) between the County and seven cities which provides a countywide taxi-based intercity paratransit service. The "Phase 1" intercity service currently provides paratransit trips between cities and/or the county unincorporated area to ambulatory riders (those able to enter and leave a taxicab without assistance). The Phase 1 intercity service does not cover intracity paratransit trips, which are provided by the cities under mandate by the Americans with Disabilities Act (ADA), nor does the Phase 1 service cover intercity trips for non-ambulatory riders.

Solano County, the Solano Transportation Authority, SolTrans, and the cities of Dixon, Fairfield, Rio Vista, and Vacaville are coordinating a new MOU which will transition the Phase 1 service into a new taxi-based service with accessible vans which will provide intercity trips to both ambulatory and non-ambulatory riders (those unable to enter and leave a regular taxicab without assistance). The new MOU will establish the County as lead administering agency for the Program, which will involve a contracted paratransit provider. Annual funding for the Program will come from a variety of sources, including Transportation Development Act Article 8 funds from the County and cities, New Freedom federal grant funds, and farebox revenues.

The MOU provides the following framework for the Program:

- The County will administer the Program and its contract;
- The other partner agencies will help fund, provide outreach, and determine appropriate farebox percentages;
- Will provide contracted taxi-style intercity service for all eligible paratransit riders;
- Creates a flexible farebox structure to balance demand for the trips within the limitations of funding;
- Establishes contingency funding to provide for unanticipated costs;

- Establishes options for agencies whose service demands outstrip their funding commitments; and
- Is termed for 2 years, but is built to be sustainable as long as there is TDA funding.

The MOU will allow the County and partner agencies to build on the success of the Intercity Taxi Scrip Program, by expanding intercity paratransit service to all paratransit eligible riders.

## **1.4 Summary of Transit Operators' S RTPs**

MTC Resolution 4060 recommended conducting multi-agency S RTPs at the county or sub-regional level to promote interagency service and capital planning. As described earlier in the Coordination Analysis Summary, STA, County of Solano and the five transit operators already collaborate as the Consortium to coordinate transit service and capital planning. The process of developing a Coordinated S RTP brought additional benefits to the preparation of individual transit operators' S RTPs by: taking a consistent approach to setting goals, objectives, performance measures and standards; evaluating transit services; developing operating plans; and applying uniform assumptions on critical factors such as population growth, cost inflation and funding availability to each operator's 10 year financial forecast.

Summaries of each operator's S RTP for FY2012-13 through FY2021-22 are presented below.

### **1.4.1 Dixon Read-Ride**

#### **Overview of Transit System**

Dixon Read-Ride is governed by the Dixon City Council, which provides policy direction. Located in the City Engineer/Public Works Department, the Public Works Administrator, is responsible for management, financial planning and oversight of transit service. The Transit Coordinator supervises daily operations performed by City employees.

Read-Ride operates a fleet of nine vehicles to provide general public dial-a-ride service with curb-to-curb service within the Dixon city limits. Read-Ride provides demand response service and does not operate any fixed-routes. Read-Ride operates on weekdays from 7:00AM to 5:00PM, with reduced service on Saturday's from 9:00AM to 3:00PM and no service on Sundays. Read-Ride also provides ADA trips to Vacaville and Davis with one-day advanced reservation.

Dixon participates in the SolanoExpress Intercity Transit Consortium and Intercity Transit Funding Agreement, which currently supports seven inter-city bus routes, with Fairfield and Suisun Transit (FAST) Route 30 directly serving Dixon. Dixon also participates in the County's intercity taxi scrip program.

## Operations Plan and Budget

The City of Dixon will continue to provide Read-Ride general public dial-a ride (DAR) service on weekdays, between the hours of 7:00AM-5:00PM, and Saturdays, between the hours of 9:00AM-3:00PM, to the 19,000 residents of Dixon. In FY2012-13, it is estimated that about 50,000 riders will be served with about 7,500 service hours, an average of about 160 passenger trips per day and 6.7 passengers per hour, at a cost of about \$647,000 with fare revenues recovering about 13% of operating costs.

Ridership growth is expected to range from 1% to 2% per year. Future ridership should be able to be accommodated without service expansion, although capacity limits will be applied to peak operating periods that coincide with morning and afternoon school bell times. Given the projected limitation on available funds to support transit operations and capital improvement and the desire to keep a \$100,000 contingency reserve, the City has only limited financial capacity capacity—about \$25,000 per year—to increase service beyond current levels, while accounting for modest cost inflation.

The baseline operating and capital plan shown in this S RTP confirm that the City of Dixon will be able to operate Read-Ride services with a small annual operating surplus for the next ten years. All capital projects can be funded from anticipated funding sources and available reserves. However, reserves do decrease significantly towards the end of the forecast period. The City should work with its funding partners to determine whether options exist for meeting Dixon's capital obligations, while maintaining a more substantial financial cushion as assurance that unanticipated expenses can be paid in a timely fashion.

### 1.4.2 Fairfield and Suisun Area Transit

#### Overview of Transit System

Fairfield and Suisun Transit (FAST) is a service of the City of Fairfield. The five-member City Council sets policy for the City; the City Manager is the chief administrative officer of the City and oversees FAST. FAST is part of the City of Fairfield's Public Works Department. Administrative oversight of the FAST system and maintenance of the fleet are provided by city staff, while day-to-day operation is provided by a contract operator, currently MV Transportation.

FAST operates a fleet of 48 in-service and spare vehicles for fixed-route service including inter-city routes. Local routes use 27 Gilligs with varying lengths (30, 35 and 40 feet). All vehicles are equipped with wheelchair lifts or ramps and are ADA compliant. All local fixed-route buses are equipped with bicycle racks

In December 2012, FAST implemented major structural changes to its local fixed route bus system to address low ridership and productivity. All nine local bus routes were reviewed. The restructuring was proposed and approved after public review and comment by the Fairfield City Council in August 2012. The resulting local bus system provides faster, more direct and more frequent service over eight new routes without increasing revenue vehicle hours. Increased ridership and

improved productivity are expected. FAST also provides origin-to-destination, demand response paratransit service (DART) to Americans with Disabilities Act (ADA)-eligible riders within Fairfield and Suisun City, and to/from Vacaville.

FAST also participates in the Intercity Funding Agreement, which supports seven inter-city bus routes. The Intercity Funding Agreement supports all four SolanoExpress intercity services operated by FAST – Routes 20, 30, 40 and 90 – providing service to Sacramento, Davis, Dixon, Vacaville, Suisun AMTRAK, Benicia and BART stations in Pleasant Hill, Walnut Creek and El Cerrito (Del Norte). FAST also participates in the County's intercity taxi program.

### **Operating Plan and Budget**

FAST will continue to provide fixed route local bus and complementary ADA paratransit services to the 134,000 residents of Fairfield and Suisun City on Mondays through Saturdays. FAST will continue to supplement ADA paratransit by subsidizing a local taxi program and supporting the Friends of Fairfield Senior Center volunteer drivers program. In addition to these local public transit services, FAST will provide SolanoExpress intercity fixed route bus services and will also continue its funding participation in the County's intercity taxi program for ADA qualified persons.

In FY2012-13 it is estimated that FAST will serve about 1 million riders with about 92,000 service hours, an average of about 3,000 passenger trips per day and 11 passengers per hour, at a cost of about \$10.5 million with fare revenues of about \$2.2 million, and recovering about 21% of operating costs from fare revenues.

Future ridership is expected to increase with the improved local bus service, population growth and economic recovery. Although the population growth forecast for Solano County is only about 1% per year, ridership growth on FAST services is expected to be somewhat higher. The forecast anticipates ridership increases of 2% per year. This is due to significant development anticipated in several Priority Development Areas (PDAs) in the FAST service area along with the planned new construction and enhancement of Fairfield's major transit facilities.

Plans are moving forward to build a mixed use development including about 6,800 residential units in a PDA around the new intermodal station / Capitol Corridor train station in northeast Fairfield on Peabody Road near Vacaville. Fairfield and Vacaville have partnered together to support the Intermodal Station. FAST staff is developing a plan for a new local bus route (Route 9) to serve the new transportation center. Currently in concept, the new route could start at the Intermodal Station, operate south along Walters Road serving a planned new Walmart at Highway 12 and then travel west to the existing train station in Suisun City. The new Route 9, operating every 60 minutes Monday through Saturday, would add about 40,000 new riders and 4,000 vehicle revenue hours annually to the local bus system. Operation of any new service is contingent upon available operating funds. Ridership increases on existing bus routes and DAR services

should be able to be accommodated without expansion of local fixed route service.

The operating and capital plan show that the City of Fairfield will be able to operate FAST, SolanoExpress, and DART services with a modest annual operating surplus for the next ten years. The trend is towards decreasing surpluses in later years, so FAST expenses and revenues should be carefully monitored for potential corrective action to maintain long term sustainability. The financial plan relies on undefined new revenue programs to maintain solvency through the end of the forecast period. Approximately \$600,000 per year in additional revenues will be required after FY2013-14 to help avoid the need to subsidize operations with additional funds from the TDA carryover reserve. Parking fees and fare increases are possible sources of additional revenue.

All state-of-good-repair projects in the current capital plan can be funded from available reserves and anticipated funding sources. However, several major infrastructure projects need significant additional funding to proceed on schedule; the current plan assumes this funding will be obtained from external local and federal sources. With the new revenue programs mentioned above included in the calculation, TDA reserves peak at almost \$6.5 million in FY2017-18, and then decline to \$1.3 million in FY2021-22. Additional efforts to manage costs or increase revenues could help FAST maintain larger TDA reserves to prepare for capital expenditures that will be necessary soon after the plan horizon.

### **1.4.3 Rio Vista Delta Breeze**

#### **Overview of Transit System**

Rio Vista Delta Breeze is managed by the City of Rio Vista Public Works and Community Development Department and operated by a transit contractor, which is currently Transportation Concepts (just recently replacing Storer Transit Systems). Five elected members of the Rio Vista City Council serve as the policy board for Rio Vista Delta Breeze.

Delta Breeze operates a fleet of three cutaway transit vehicles and one van to offer service within the rural community of Rio Vista, and to Isleton and destinations anywhere in Solano County and eastern Contra Costa County (defined as Oakley, Brentwood, Byron, Antioch and Pittsburg and unincorporated areas in between). Rio Vista operates deviated fixed route services connecting Rio Vista and Isleton with linkages to regional services in Fairfield, Suisun City, Antioch and Pittsburg. Delta Breeze also offers two dial-a-ride services that operate within and beyond the city limits of Rio Vista.

Rio Vista Delta Breeze also administers a local taxi scrip program that provides economically priced, door-to-door transportation service available exclusively to seniors (age 65 years old or older), persons with disabilities and Medicare cardholders that are Rio Vista residents, with the intent of providing an additional level of transit service for these customers when Rio Vista Delta Breeze bus service is not available. Rio Vista also supports a Ride for Pride program operated by Faith in Action, a private non-profit organization. Ride for Pride is a volunteer

transportation program for seniors age 60 and older for medical appointments and other errands subject to availability of volunteers. Rio Vista also participates in the County's intercity taxi scrip program.

### **Operating Plan and Budget**

The City of Rio Vista will continue to provide Delta Breeze services as currently offered, including intercity Routes 50, 52, and 54, and Route 51 general public dial-a-ride service. Staff will consider adding a round trip to BART on Route 52 when eBART service to Antioch commences in 2017. The City will continue to supplement the Delta Breeze service with its local taxi scrip program and the new Faith in Action Ride with Pride volunteer driver program, as well as continuing its participation in the County's intercity taxi scrip program. Also, the City expects to continue its service contract with River Delta Unified School District (RDUSD).

In FY2012-13, Delta Breeze is expected to serve about 13,000 riders with about 4,300 service hours, an average of about 50 passenger trips per day and 3 passengers per hour, at a cost of about \$350,600 with fare revenues recovering almost 11% of operating costs. With transfer reimbursements and the RDUSD contract payment included, passenger revenues total \$58,100 and the resulting recovery ratio is closer to 17%.

The financial projection shows that City of Rio Vista will have balanced expenses and revenues throughout the 10 year period, occasionally using TDA reserves to offset operating deficits and fund capital replacement needs. Steady growth in ridership and fare revenues in conjunction with a stable operating plan and population growth lead to higher system productivity and adequate reserves. The primary challenge faced by City of Rio Vista staff in the future will be obtaining a contractor for Delta Breeze operations and maintenance at comparable cost rates after the current contract expires at the end of 2017.

## **1.4.4 Solano County Transit (SolTrans)**

### **Overview of Transit System**

Solano County Transit, "SolTrans" is overseen by the SolTrans Joint Powers Authority Board which is comprised of five appointed directors and one ex-officio, non-voting director and two alternates. These positions are comprised of two voting directors from each member agency other than STA, one voting director that is the Solano County representative to the Metropolitan Transportation Commission (MTC), and one non-voting STA representative.

SolTrans is the result of a merger between Vallejo Transit and Benicia Breeze.

The agency currently has a fleet of 29-vehicle local fixed route vehicles including 21 low-floor 40-foot Gillig Hybrid/Diesel and 8 Orion Diesel buses (five of which are in contingency). The intercity fleet is comprised of twenty-five (25) 45-foot Motor Coach Industries (MCI) diesel buses with seating capacity up to 57. Ten of these vehicles are held in a contingency fleet. One Gillig hybrid diesel bus is also shared between local mid-day service and peak inter-city service. An additional

ten (10) MCIs are owned by SolTrans but leased to the City of Fairfield for their intercity services. The Dial-A-Ride and ADA paratransit fleet consists of 14 vehicles (ten in active service and four in contingency). All revenue vehicles are ADA compliant.

SolTrans provides 11 local bus fixed-routes and five intercity, commuter express bus routes. Additionally, SolTrans currently operates: (i) a supplemental bus route for the Vallejo Ferry; (ii) shared-ride, curb-to-curb general public Dial-A-Ride (DAR) bus service that operates within Benicia only; (iii) ADA paratransit bus service for qualified persons with disabilities complementing the fixed-route service; and (iv) subsidized taxi programs that provide rides locally and within Solano County for eligible individuals.

### **Operating Plan and Budget**

SolTrans will continue to provide fixed route local bus, complementary ADA paratransit services, and local dial-a-ride (DAR) services supplemented by a local taxi scrip program in the SolTrans service area. In addition to these local public transit services, SolTrans will provide SolanoExpress intercity fixed route bus services and will also continue its funding participation in the County's intercity taxi scrip program for ADA qualified persons. In FY2013-14 and FY2014-15, staff proposes to add about 2,000 revenue hours each year, 4,000 hours total, on the most productive local bus routes which amounts to less than 5% fixed route service expansion.

In FY2012-13, SolTrans is expected to serve about 1.5 million riders systemwide with about 115,000 service hours, an average of about 5,000 passenger trips per day and 13 passengers per hour, at a cost of about \$11.5 million with fare revenues of about \$3.3 million recovering about 29% of operating costs from fare revenues. Between FY2012-13 and FY2014-15, ridership on fixed route local service is expected to grow 3% due to the introduction of new services. After this initial increase, local ridership is forecast to be about 1% per year. Ridership on Intercity and all paratransit services is forecast to grow at 2% per year through FY2021-22. Ridership increases should be able to be accommodated without any additional expansion of local service.

The operating plan generates an annual surplus every year until the last year of the plan. The operating deficit in the final year is small enough that it can be covered with available TDA reserves. However, the trend in operating results is for increasing deficits after the forecast horizon. At the same time, the capital plan relies on unspecified future funding sources to avoid depleting available TDA reserves. Beyond the horizon year, additional operating subsidy from TDA would be required, which could constrain SolTrans' ability to meet future capital needs.

## **1.4.5 Vacaville City Coach**

### **Overview of Transit System**

Vacaville City Coach is a service of the City of Vacaville. The City Council sets policy for the City; the City Manager is the chief administrative officer of the city

and oversees Vacaville City Coach. Vacaville City Coach operates under the Public Works Department through its General Services Division. The City utilizes a transit service contractor to provide the labor and administration for the City's public transit system.

Vacaville City Coach operates a fleet of fifteen (15) 35-foot, low-floor, CNG buses for fixed route service. Each of these buses has 30 seats. Demand response service is provided by six (6) 15-foot cutaway vans with eight seats. All revenue vehicles are ADA compliant.

Vacaville City Coach operates six local fixed routes that provide coverage throughout the city. Most routes begin and end at the Vacaville Transportation Center, which functions as one of two main transfer centers (the other being in Vacaville's downtown area). Also, Vacaville City Coach provides complementary ADA paratransit services within  $\frac{3}{4}$  mile of its fixed route bus services and administers a local taxi scrip program. Vacaville participates in the SolanoExpress Intercity Transit Consortium's Intercity Funding Agreement, which currently supports seven inter-city bus routes, with FAST Routes 20, 30, and 40 directly serving Vacaville. Vacaville also participates in the County's intercity taxi scrip program.

## **Operating Plan and Budget**

The City of Vacaville will continue to provide City Coach (VCC) fixed route local bus and complementary ADA paratransit Special Services, supplemented by a local taxi scrip program. In addition to these local public transit services, the City will also continue its funding participation in SolanoExpress intercity fixed route bus services and the County's intercity taxi scrip program for ADA qualified persons.

In FY2012-13, it is estimated that VCC will serve more than 500,000 riders with about 39,000 service hours, an average of about 1,600 passenger trips per day and 13 passengers per hour, at a cost of about \$2.3 million with fare revenues recovering about 20% of operating costs. In FY2013-14, staff proposes a modest increase of about 800 annual revenue hours.

The operating and capital plan confirms that the City of Vacaville will be able to operate City Coach services with a sizeable annual operating surplus for the next ten years. All capital projects can be funded from anticipated funding sources and available reserves. Reserve funds accumulate over the forecast period, providing the City a significant source of local funding for future capital expenses.

## **1.5 Transit Sustainability Plan (TSP)**

At its meeting of June 12, 2013, the STA Board received the Solano Transit Sustainability Plan (TSP) Financial Conditions Assessment and requested the report be included as an appendix to the Solano County Coordinated SRTP. This Assessment is contained in Appendix A.

The purpose of this study is to focus on the financial condition of the Solano County transit operators in a similar manner to the Metropolitan Transportation Commission's (MTC) Transit Sustainability Plan financial assessment. MTC has undertaken a TSP examining the needs for making Bay Area transit service sustainable and an approach for meeting sustainability requirements. The focus of the MTC TSP has been on the seven largest transit operators in the region, none of which are in Solano County.

The TSP provided the financial baseline for the Solano County Coordinated Short Range Transit Plan (SRTP). The baseline is the point from which the short range planning analysis begins. While the TSP five year forecast of costs and revenues formed the basis for the SRTPs, there are some differences between the two financial scenarios. Subsequent to the development of the TSP, several issues emerged and were resolved and new information became available, all of which are reflected in the SRTP. Additionally, the SRTP is required to cover the next ten years while the TSP covers the next five years.

During the course of the development of the TSP, the STA and transit operators agreed to a schedule and funding plan for replacing intercity buses. This funding agreement is included in the SRTPs. More detailed analysis of all capital needs and funding are included in the SRTP as well. In February 2013, after the TSP financial analysis was completed, new fund estimates for Transportation Development Act (TDA) funds became available. The new fund estimate was incorporated into the SRTPs, but the same growth factors were used to forecast future TDA revenues. These differences between the TSP and SRTP reflect the different points in time that the two documents were developed but the general conclusions of both studies regarding the baseline are similar.

## 2 Coordination Analysis

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### 2.1 Introduction

#### 2.1.1 Background

In 2010 the Metropolitan Transportation Commission began the Transit Sustainability Project (TSP), a regional effort to address transit capital and operating shortfalls and to improve transit performance for the customer. In May 2012 MTC adopted Resolution 4060 which contains several policies, strategies and recommendations resulting from the TSP findings. One of the Resolution 4060 recommendations was to conduct multi-agency Short Range Transit Plans at the county or subregional level to promote interagency service and capital planning. On March 12, 2012, Solano County Transportation Authority (STA) approved a scope of work to perform a Solano County Coordinated SRTP. In addition to the customary requirements for the development of the SRTP, at MTC's request STA included the following coordination tasks in the scope of work for the Solano County Coordinated SRTP:

1. **Different Fare Structure and Discounts/Standard Fare Structure/Fare Reconciliation**
  - A. Develop a standardized fare structure (may just include standard fare instruments, but could also include standard dollar amounts for each) for Solano County Transit Operators.
  - B. Revise current fare policies to conform with Clipper
  - C. Analyze the potential revenue impact and/or gains to Solano County operators with the implementation of a standardized fare structure.
2. **Enhanced Transit Coordination of Capital Planning**
  - A. Develop and combine data for capital needs for transit operators in Solano County
  - B. Data should have the same components as the individual capital planning scope of work in the SRTP
  - C. Identify potential funding sources to meet capital needs
  - D. Show funding need in graphs by year, type of capital, and operator
  - E. Identify potential joint procurement opportunities

### 3. Enhanced Coordination of Transit Service Planning

- A. Identify connection problems of local routes to intercity routes and other regional transportation systems such as BART, the Capital Corridor, and the Bay Area Water Emergency Transit Authority (WETA).
- B. Identify changes to enhance service for intercity travel as well as intercity to local, local to intercity, and intercity to intercity/regional
- C. Identify potential coordination needs as ridership increases in the future
- D. Identify changes needed to align the schedule change calendar among Solano County transit operators and what scheduling software changes should be made, if any to facilitate schedule coordination and customer travel planning

MTC's Resolution 4060 also includes a specific recommendation related to bus scheduling software coordination and is the basis for coordination Task 3.D. (above):

Integrate bus/rail Scheduling software to facilitate schedule coordination and customer travel planning. Establish a regional schedule change calendar.

The Commission finds that schedule coordination between connecting agencies will increase the attractiveness of public transit but that connecting agencies make schedule changes on different dates and in some cases use incompatible scheduling software systems that make schedule integration difficult. This recommendation would align the schedule change calendar for major schedule changes among the region's operators and require all connecting operators to implement a compatible scheduling software system. Implementation would be subject to each transit agency's future scheduling system procurement timeline, and, for some agencies, may be subject to negotiation of changes to existing labor contract provisions that govern schedule change dates.

A fourth coordination task regarding ADA paratransit service coordination was recommended by MTC as well. STA is preparing a separate Mobility Management Plan that will address ADA paratransit coordination and is referenced in the Solano County SRTP.

#### 2.1.2 Purpose

The purpose of this Technical Memorandum is to present an analysis of current coordination activities between the public transit operators within Solano County in accordance with the requirements of the STA for preparation of a Solano

County Coordinated Short Range Transit Plan, Task A9. Three areas of coordination are included in this analysis:

- Service Planning Coordination
- Fare Coordination
- Capital Planning Coordination

For each subject area, a description of current coordination activities is presented, followed by a discussion of coordination objectives and an analysis of how well current coordination activities are achieving those objectives, and concluding with identification of opportunities to improve coordination among the transit operators. Recognizing that a separate Mobility Management Plan is being developed by the STA to address ADA paratransit services within the County, the focus of this analysis and presentation is on fixed and flexible route public transit services and, where fixed route services are not provided, general purpose dial-a-ride (DAR) services.

## **2.2 Service Planning Coordination**

The essential elements of service planning include the determination of transit routes and network, vehicles, span of service, frequency of service, and access or connection points (i.e., stops, stations and transit centers) appropriate to effectively meet the demand for transit services and efficiently utilize the resources available to deliver those services.

### **2.2.1 Current Service Coordination Activities**

#### **2.2.1.1 Countywide Public Transit Services Network**

Within Solano County there are five public transit operators providing a combination of local and intercity fixed route transit services, general purpose local DAR services, and local and intercity flex route transit services that are available to the general public, without eligibility restrictions. The transit operators also administer taxi scrip programs for local travel by ADA qualified persons. The local service areas of these operators typically follow municipal boundaries:

- Solano County Transit (SolTrans) provides local fixed route bus and complementary ADA paratransit services within the City of Vallejo and between Vallejo and Benicia. SolTrans also provides DAR services and limited fixed route bus service within the City of Benicia.
- Fairfield and Suisun Transit (FAST) provides local fixed route bus and ADA paratransit services within and between the cities of Fairfield and Suisun.
- Vacaville City Coach (VCC) provides fixed route bus and ADA paratransit services within the City of Vacaville.

- Rio Vista Delta Breeze (RVDB) provides DAR and flex route services within and between the City of Rio Vista and the City of Isleton (in Sacramento County).
- Dixon Redit-Ride provides DAR services within the City of Dixon.

Intercity services are provided by three of the five public transit operators in Solano County. Also, the County of Solano administers a taxi scrip program for intercity travel by ADA qualified persons.

- SolTrans operates Route 76 limited weekday fixed route bus service between Vallejo, Benicia and Diablo Valley College in Pleasant Hill in Contra Costa County; Route 78 all day weekday and Saturday fixed route bus service between Vallejo, Benicia and Pleasant Hill and Walnut Creek BART stations in Contra Costa County; Route 80 all day weekday and Saturday fixed route bus service between Vallejo and the El Cerrito del Norte BART station in Contra Costa County; Route 80S Sunday only fixed route bus service between Vallejo, Benicia and Walnut Creek BART station; and Route 85 all day weekday only fixed route bus service between Vallejo, Solano Community College, and Fairfield.
- FAST operates Route 20 all day weekday and Saturday fixed route bus service between Fairfield and Vacaville; Route 30 limited weekday and Saturday fixed route bus service between Fairfield, Vacaville, Dixon, Davis in Yolo County and Sacramento in Sacramento County; Route 40 limited weekday only fixed route bus service between Vacaville, Fairfield, Benicia and Pleasant Hill and Walnut Creek BART stations; and Route 90 all day weekday only fixed route bus service between Fairfield and El Cerrito del Norte BART station with certain trips also serving Suisun Amtrak station.
- RVDB operates Route 50 limited weekday flex route van service between Rio Vista/Isleton and Fairfield; Route 52 limited weekday flex route van service between Rio Vista/Isleton, Antioch and Pittsburg BART station in Contra Costa County; and Route 54 Wednesday only DAR service between Rio Vista/Isleton and, on alternating weeks, Fairfield, Vacaville, Antioch/Pittsburg and Lodi in Sacramento County.

All of the public transit operators along with STA and County of Solano coordinate support of intercity fixed route and DAR transit services by participating in the Solano Intercity Transit Consortium (Consortium). Four of the five Solano operators, excluding Rio Vista, along with the County and STA are parties to an Intercity Transit Funding Agreement that sets forth cost sharing and funding formulas for certain intercity fixed route services that achieve specified performance criteria. The services that are included in this funding agreement are: SolTrans Routes 78, 80 and 85; and FAST Routes 20, 30, 40 and 90. These seven routes serve the areas with highest travel demand, carry the most riders, meet the performance criteria of the Intercity Transit Funding agreement, and offer a higher level of service than the other five intercity transit services.

Figure 1 presents a map of Solano County that shows the eleven fixed and flex intercity transit routes within Solano County (Route 54 is a door-to-door service implemented in January 2013 and is excluded from further analysis in this report) and the primary locations where these intercity services currently connect with local transit services for the purpose of transferring passengers. In addition to the local and intercity transit services provided by Solano operators, a few public transit operators from neighboring counties provide regional and inter-regional transit services into Solano County: Napa Vine, Yolo Bus and Capitol Corridor/Amtrak. Private operators providing intercity transit services include Greyhound, various taxi services and corporate shuttles. These primary locations for local, intercity and regional connectivity are:

- Vallejo Intermodal Station (Transit Center and Ferry Terminal)
- Fairfield Transportation Center
- Fairfield's Solano Town Center
- Suisun Amtrak Station
- Vacaville Transportation Center
- Market Lane Park and Ride Lot, Dixon

The combination of these five local public transit systems, eleven intercity public transit routes, and six transit hubs constitutes the current countywide public transit service network that is the result of current service planning conducted individually and collectively through the coordinated efforts of the Consortium; these will be the subject of this Coordination Analysis. In FY2011-12, the total ridership of these intercity bus routes was more than 1 million passenger trips paying more than \$3.7 million in fares. About 73,000 service hours were provided at a cost of \$9.4 million.

**Figure 1: Countywide Transit Network Map**



In addition, intercity paratransit services are being offered through an MOU between the County and seven cities which provides a countywide taxi-based intercity paratransit service. The “Phase 1” intercity service currently provides paratransit trips between cities and/or the county unincorporated area to ambulatory riders (those able to enter and leave a taxicab without assistance). The Phase 1 intercity service does not cover intracity paratransit trips, which are provided by the cities under mandate by the Americans with Disabilities Act (ADA), nor does the Phase 1 service cover intercity trips for non-ambulatory riders.

Solano County, the Solano Transportation Authority, SolTrans, and the cities of Dixon, Fairfield, Rio Vista, and Vacaville are coordinating a new MOU which will transition the Phase 1 service into a new taxi-based service with accessible vans which will provide intercity trips to both ambulatory and non-ambulatory

riders (those unable to enter and leave a regular taxicab without assistance). The new MOU will establish the County as lead administering agency for the Program, which will involve a contracted paratransit provider. Annual funding for the Program will come from a variety of sources, including Transportation Development Act Article 8 funds from the County and cities, New Freedom federal grant funds, and farebox returns from riders.

The MOU provides the following framework for the Program:

- The County will administer the Program and its contract;
- The other partner agencies will help fund, provide outreach, and determine appropriate farebox percentages;
- Will provide contracted taxi-style intercity service for all eligible paratransit riders;
- Creates a flexible farebox structure to balance demand for the trips within the limitations of funding;
- Establishes contingency funding to provide for unanticipated costs;
- Establishes options for agencies whose service demands outstrip their funding commitments; and
- Is termed for 2 years, but is built to be sustainable as long as there is TDA funding.

The MOU will allow the County and partner agencies to build on the success of the Intercity Taxi Scrip Program, by expanding intercity paratransit service to all paratransit eligible riders.

### **2.2.1.2 Countywide Public Transit Level of Services at Transit Hubs**

The level of service consists of the span and frequency of service throughout the day and week, and in particular for this Coordination Analysis, at the six locations of network connectivity. Besides the hours and frequencies of services at these transit hubs, another important factor affecting the connectivity of services is whether or not the transit vehicles are scheduled to meet one another. This is commonly referred to as “pulsing”, especially when the meets are at regular intervals (every 30 minutes or 60 minutes, for example). Tables 1 through 6 show the levels of service of the routes serving each transit hub, including notations regarding the presence of scheduled vehicle meets and “pulsing.” If no reference is made to a pulse, then that route does not have scheduled meets and does not “pulse.”

**Table 1: Level of Service at Vallejo Intermodal Station  
(effective January 2013)**

| Routes         | Weekday Hours and Frequency  | Saturday Hours and Frequency   | Sunday Hours and Frequency                     |
|----------------|--|--|--|
| SolTrans Local | 6:30AM – 7:00PM, 30 min peak, 60 min midday, pulse on the hour and half hour                     | 6:30AM – 7:00PM, every 60 min, pulse on the half hour                              | 8:30AM – 7:30PM, every 60 min                  |
| SolTrans 76    | 6:00AM, 1:20PM, 4:50PM – 3 trips   | No service   | No service                                     |
| SolTrans 78    | 6:00AM - 8:50PM, 20 min peak, 120 min midday, meets local pulse SB, offset by 15 min at pulse NB | 6:30AM – 8:15PM, every 120 min, meets local pulse SB, offset by 15 min at pulse NB | No service                                     |
| SolTrans 80    | 4:30AM – 11:25PM, 15 min peak, 30 min midday, meets local pulse SB, meets BART NB                | 6:05AM – 11:25PM, every 30 min, meets local pulse SB and NB                        | No service                                     |
| SolTrans 80S   | No service   | No service   | 8am – 8pm, 8 round trips, meets BART SB and NB |
| SolTrans 85    | 5:35AM – 10:20PM, every 60 min, meets local pulse NB   | 6:35am – 10:20PM, every 120 min, meets local pulse NB                              | No service                                     |
| Vine 11        | 6:15AM – 8:30PM, every 60 minutes  | 7:45AM – 5:45PM, every 60 minutes  | No service                                     |
| Vine 29        | 5:16AM – 7:20PM, meets ferries   | No service   | No service                                     |
| WETA Ferry     | 5:30AM – 8:15pm, varies between 30 min and 150 min   | 8:30AM – 10:00PM, every 90 minutes   | 8:30AM – 10:00PM, every 90 minutes             |
| WETA 200 Bus   | 6:00AM – 11:30PM, 6 round trips  | No service   | No service                                     |

**Table 2: Level of Service at Fairfield Transportation Center  
(effective January 2013)**

| Routes           | Weekday Hours and Frequency                                    | Saturday Hours and Frequency                     | Sunday Hours and Frequency |
|------------------|--|--|----------------------------|
| FAST Local       | 6:00AM – 7:55PM, every 30 min, pulse on the hour and half hour | 9:00AM – 5:55pm, every 60 min, pulse on the hour | No service                 |
| FAST 20          | 6:40AM – 6:40PM, every 60 min                                  | 9:40AM – 4:40PM, every 60 min                    | No service                 |
| FAST 30          | 7 EB trips, 6 WB trips   | 3 round trips                                    | No service                 |
| FAST 40          | 9 round trips, meets BART                                      | No service                                       | No service                 |
| FAST 90          | 4:10AM – 8:10PM, 15 min peak, 60 min off-peak, meets BART      | No service                                       | No service                 |
| RVDB 50          | Up to 3 round trips + 2 shuttles from Amtrak Station           | No service                                       | No service                 |
| VINE 21 (future) | TBD  | TBD  | TBD                        |

**Table 3: Level of Service at Solano Town Center, Fairfield  
(effective January 2013)**

| Routes     | Weekday Hours and Frequency                                  | Saturday Hours and Frequency                               | Sunday Hours and Frequency |
|------------|--|--|----------------------------|
| FAST Local | 6:15AM – 8:05PM, every 30 minutes, pulse on the quarter hour | 9:15AM – 6:05PM, every 60 min, pulse 15 min after the hour | No service                 |
| FAST 20    | 7:30AM – 7:20PM, every 60 min                                | 9:30AM – 5:20PM, every 60 minutes                          | No service                 |

|             |                                |                                |            |
|-------------|--------------------------------|--------------------------------|------------|
| FAST 30     | 4 EB trips, 3 WB trips         | 3 round trips                  | No service |
| SolTrans 85 | 6:25AM – 10:35PM, every 60 min | 7:25AM – 9:35PM, every 120 min | No service |

**Table 4: Level of Service at Suisun Amtrak Station  
(effective January 2013)**

| Routes           | Weekday Hours and Frequency                                      | Saturday Hours and Frequency          | Sunday Hours and Frequency            |
|------------------|--|---------------------------------------|---------------------------------------|
| FAST Local 5     | 6:10AM – 7:45PM, every 30 min                                    | 9:10AM – 5:45PM every 60 min          | No service                            |
| FAST 90          | 4:40AM– 7:45AM;<br>4:20PM–8:00PM, every 15 to 30 min, meets BART | No service                            | No service                            |
| RVDB 50          | Up to 3 round trips + 2 shuttles to FTC                          | No service                            | No service                            |
| Capital Corridor | 5:10AM – 10:45pm, every 30 to 60 minutes                         | 6:20AM – 10:05PM, every 60 to 120 min | 6:20AM – 10:05PM, every 60 to 120 min |

**Table 5: Level of Service at Vacaville Transportation Center  
(effective January 2013)**

| Routes    | Weekday Hours and Frequency                                    | Saturday Hours and Frequency                                   | Sunday Hours and Frequency |
|-----------|--|--|----------------------------|
| VCC Local | 6:00AM – 6:30PM, every 30 min, pulse on the hour and half hour | 8:00AM – 6:00PM, every 30 min, pulse on the hour and half hour | No service                 |
| FAST 20   | 7:00AM– 7:00PM, every 60 min, meets local pulse on the hour    | 10:00AM – 5:00PM, every 60 min, meets local pulse on the hour  | No service                 |
| FAST 30   | 5 round trips  | 3 round trips  | No service                 |
| FAST 40   | 6 WB and 7 EB trips, meets BART                                | No service   | No service                 |
| Yolo 220  | 8:52AM – 3:38PM, 3 round trips                                 | 8:52AM – 4:00PM, 3 round trips                                 | No service                 |

**Table 6: Level of Service at Market Lane PnR Lot, Dixon  
(effective January 2013)**

| Routes           | Weekday Hours and Frequency                   | Saturday Hours and Frequency            | Sunday Hours and Frequency |
|------------------|---|---|----------------------------|
| Readi-Ride Local | 7:00AM – 5:00PM, on-demand                    | 9:00AM – 3:00PM, on demand              | No service                 |
| FAST 30          | 4 EB and 2 WB trips between 7:00AM and 5:00PM | 3 round trips between 9:00AM and 3:00PM | No service                 |

## 2.2.2 Service Coordination Objectives

As previously stated, an objective of service planning is to effectively meet the demand for transit services and efficiently utilize the resources available to deliver those services. In the context of a countywide transit service planning coordination analysis, the analysis focuses on the effectiveness and efficiency of transit that serves intercity travel. Furthermore, because the analysis centers on “coordination”, it focuses specifically on intercity transit services that require collaboration between operators.<sup>1</sup>

Several questions can be posed as objectives:

- How does Solano County’s organizational structure function for collaborative intercity transit service planning?
- Does Solano County have the resources to deliver effective intercity transit services?
- Does Solano County have an effective and efficient intercity transit service network?
- Are Solano County transit operators coordinating schedules of connecting routes?
- Are Solano County transit operators addressing the regional transit coordination requirements of MTC Resolution 3866, which include SB 602 revenue sharing agreements, Clipper implementation, 511 Transit Information support, and Regional Transit Hubs Signage?

## 2.2.3 Service Coordination Analysis

### 2.2.3.1 Organizational Structure

The organizational structure for collaborative intercity transit service planning in Solano County is the SolanoExpress Intercity Transit Consortium (Consortium) which includes all Solano operators plus STA and the County of Solano. Established in 1997 by STA and the cities and county of Solano through an amendment to the STA’s Joint Powers Agreement (JPA), the Consortium coordinates intercity services that operate within Solano County and between Solano County and Contra Costa, Napa, Yolo and Sacramento counties. The Consortium also functions as an official advisory committee to the STA Board and staff on matters pertaining to planning and implementation of intercity transit. The Consortium was established in response to SB 1474, the Bay Area Transit Coordination bill and successor to SB 602, and is considered one of the model transit coordination efforts among multiple providers throughout the Bay Area. In 2001, the STA adopted, as part of Solano's Comprehensive Transportation Plan, a Transit Element which provided a long-range transit plan that addresses the needs

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<sup>1</sup> It is acknowledged that local transit service planning is addressed by the county’s five local transit operators.

for future intercity transit, park and ride facilities, and ridesharing. The primary corridors for fixed route intercity services parallel Interstate Highways 80, 680 and 780. A companion study to this Coordination Analysis, I-80/I-680/I-780/SR12 Transit Corridor Study Update, an update to the study conducted in 2004, is investigating future improvements to existing intercity services and facilities.

Currently, staff of each agency meets monthly at the Consortium to discuss and address planning, marketing, operating, finance and other intercity transit service management and delivery issues. Staff report back to their respective executive management and policy boards that have authority for decisions related to their individual transit systems. As an official advisory committee to the STA Board, the Consortium works cooperatively with STA staff to ensure that the coordination efforts of the individual agencies produce results that are consistent and effective.

The effective functioning of the Consortium relies on inter-agency cooperation at all levels: staff, management, and boards. The level of cooperation is apparent in the many shared projects and programs which have originated out of the Consortium, such as bus, van and shelter purchases and intercity transit and taxi service agreements. Such cooperation is currently through consensus building and guided by the STA's JPA and a Memorandum of Understanding (MOU) between the participating agencies that describes the purpose, authority, funding and responsibilities of the Consortium. Although the MOU appears to not have been formally executed, the agencies follow its principles and the Consortium annually prepares a work plan for sustaining and improving intercity services. Formal agreements are developed when necessary to secure commitments to support the intercity transit services, such as the Intercity Transit Funding Agreement. This Agreement establishes consistent cost allocation and equitable cost sharing methodologies for intercity routes, as well as guiding principles for service planning and marketing.

The Intercity Transit Funding Working Group (ITFWG), a sub-group of the Consortium, was formed by STA to develop funding stability and equitable cost sharing for intercity services. ITFWG is currently comprised of all funding participants including the County of Solano, STA, and all Solano County transit operators, except Rio Vista. This group meets periodically to discuss funding of the seven intercity routes covered by the Agreement (while the Consortium more generally supports these 7 routes plus the other 4 intercity routes that are not included in the funding agreement). The ITFWG has effectively shared information and coordinated between the member agencies and provides a good forum for consensus building on funding issues.

### **2.2.3.2 Administrative, Operating and Capital Resources**

STA and the Consortium coordinate the administrative, operating and capital resources available for intercity transit services. Marketing and customer service for intercity transit services are provided by the transit operators and STA through the Solano-Napa Commuter Information (SNCI) program. SNCI maintains a

website where the public can obtain information on intercity transit services and promotions and links to the operators' and MTC's websites. The transit operators and SNCI produce and distribute printed customer informational materials and SNCI also provides personal customer service via an 800 phone line. The three individual agencies that operate the intercity transit routes are responsible for delivering agreed upon intercity services, equipment and facilities.

For example, Vallejo Transit (the predecessor agency to SolTrans) and FAST procured the buses used on the intercity bus routes, include the intercity services in their respective operating contracts, and provide the facilities for vehicle maintenance and service administration (including customer service). The operators provide intercity route, fare and schedule information through their individual websites, printed schedules, customer service and public information centers (like 511.org) and send SNCI updates on their intercity services as needed. The Consortium and STA work together to secure needed capital and operating funding from local, regional, state and federal resources to sustain these intercity services. Through individual operator agreements STA has agreed to develop capital and operating funding plans for Routes 30, 78, and 90.

In late 2012, the STA Board approved a new Intercity Transit Funding Agreement for SolanoExpress Routes for Fiscal Year (FY) 2012-13 and 2013-14. Under the revised agreement, SolTrans, Dixon, Fairfield, Suisun City, Vacaville, and Solano County contribute to the Solano Express network and as a result, make most policy decisions on the service. The service continues to be operated by SolTrans and FAST. The agreement focuses on three principles – stability, efficiency and flexibility. Included in the agreement is a list of service design standards and direction to specify, in the Coordinated SRTP, performance benchmarks that will be used to design and then evaluate the intercity services.

To be included in this Agreement, a route must meet all five of the following criteria:

- Operates between two cities (except between Fairfield and Suisun City where local service is provided by FAST);
- Carries at least 2,000 riders per month;
- Operates at least 5 days per week;
- Has been operating for at least a year and is not scheduled for deletion within the fiscal year; and
- Maintains service that meets at least one of the performance benchmarks identified in the Coordinated SRTP (i.e., service productivity, cost efficiency, and cost effectiveness).

Intercity transit costs are shared among jurisdictions using a formula that is based on two factors: ridership by residence and population. This shared funding is for the cost of these routes after farebox and other non-local revenue are taken into account. The County's share is negotiated annually and is based on either the proportion of the County's population share, or by increasing the County's share

from the previous year using the Consumer Price Index. The resulting net cost is shared among the participating jurisdictions based on 20% of their population share and 80% of ridership by residence. The subsidy amounts provided by each jurisdiction are included in the annual TDA matrix prepared by STA and submitted to MTC.

The only other source of funds that are “dedicated” to support operation of intercity (express bus) services were secured by STA from the Regional Measure 2 Regional Express Bus Program (a component of the Resolution 3434 transit expansion program) of the Metropolitan Transportation Commission (MTC). The annual renewal of the Intercity Transit Funding Agreement is critical to sustaining services.

### **2.2.3.3 Service Effectiveness and Efficiency**

The three transit operators in Solano County providing intercity services employ metrics and standards to evaluate service performance in the context of each agency’s internal agency goals and objectives. The Intercity Transit Funding Agreement developed by the operators and STA requires the specification of performance measures and benchmarks for the seven intercity bus routes included in the Agreement. The Transit Corridor Study is developing a set of intercity transit service performance benchmarks based on best practices and to ensure sustainability of intercity services over the long term for consideration by the Consortium and STA. An analysis and evaluation of each of the seven intercity routes using a proposed set of performance benchmarks from the Corridor Study is presented.

The table below depicts the current (FY2012-13) effectiveness and efficiency performance (a lighter color represents performance below the benchmark, while a darker represents performance exceeding the benchmark). These findings are preliminary in that the Corridor Study and its performance benchmarks are still under consideration by the Consortium and have not yet been adopted by the STA.

**Table 7: Performance Evaluation of Intercity Transit Funding Agreement Routes**

| Service Productivity Measures                       |             | Benchmark        | FAST      | FAST      | FAST      | SolTrans  | SolTrans  | SolTrans  | FAST      |
|---|-------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|   |             |                  | 20        | 30        | 40        | 78        | 80        | 85        | 90        |
| Passengers per Vehicle Revenue Hour                 | Performance | 25.0             | 14.1      | 10.8      | 7.1       | 8.5       | 25.5      | 13.1      | 16.2      |
| Passengers per Trip                                 | Performance | 15.0             | 6.9       | 9.4       | 8.8       | 8.2       | 15.8      | 12.0      | 14.8      |
| Passengers per Vehicle Mile                         | Performance | 1.0              | 0.6       | 0.3       | 0.2       | 0.4       | 0.7       | 0.4       | 0.5       |
| Peak Corridor Demand (Hourly Demand / Capacity)     | Performance | 85.0%            | 42%       | 52%       | 40%       | 42%       | 88%       | 35%       | 66%       |
| Capacity Utilization (Passenger Miles / Seat Miles) | Performance | 35.0%            | 11%       | 18%       | 15%       | 14%       | 20%       | 15%       | 27%       |
| <b>Cost Efficiency Measures</b>                     |             | <b>Benchmark</b> | <b>20</b> | <b>30</b> | <b>40</b> | <b>78</b> | <b>80</b> | <b>85</b> | <b>90</b> |
| Cost per Vehicle Revenue Hour                       | Performance | \$125.00         | \$106.68  | \$119.94  | \$103.95  | \$105.73  | \$107.06  | \$99.34   | \$116.68  |
| Cost per Vehicle Revenue Mile                       | Performance | \$5.00           | \$4.31    | \$3.40    | \$3.43    | \$5.39    | \$3.01    | \$3.29    | \$3.38    |
| Cost per Revenue Seat Mile                          | Performance | \$0.10           | \$0.08    | \$0.06    | \$0.06    | \$0.10    | \$0.06    | \$0.06    | \$0.06    |
| <b>Cost Effectiveness Measures</b>                  |             | <b>Benchmark</b> | <b>20</b> | <b>30</b> | <b>40</b> | <b>78</b> | <b>80</b> | <b>85</b> | <b>90</b> |
| Subsidy per Passenger Trip                          | Performance | \$3.50           | \$5.65    | \$7.31    | \$10.36   | \$9.01    | \$1.31    | \$5.48    | \$2.94    |
| Revenue per Revenue Seat Mile                       | Performance | \$0.04           | \$0.02    | \$0.02    | \$0.02    | \$0.03    | \$0.04    | \$0.02    | \$0.04    |
| Farebox Recovery Ratio (STA)                        | Performance | 50%              | 25%       | 34%       | 29%       | 28%       | 69%       | 28%       | 59%       |
| Farebox Recovery Ratio (RM2 RC)                     | Performance | 30%              | N/A       | 34%       | 29%       | N/A       | N/A       | N/A       | N/A       |
| Farebox Recovery Ratio (RM2 RAD)                    | Performance | 20%              | 25%       | N/A       | N/A       | 28%       | 69%       | 28%       | 59%       |

|        |                               |                               |                                |
|--------|-------------------------------|-------------------------------|--------------------------------|
| Scale: | Performs Worse than Benchmark | Performs Just Below Benchmark | Performs Better than Benchmark |
|--------|-------------------------------|-------------------------------|--------------------------------|

Source: FAST and SolTrans, 2013.

The evaluation indicates that Routes 80 and 90 are high performing, high productivity services. Both routes continue to experience annual ridership increases. However, the evaluation also indicates inconsistent service effectiveness and productivity in general and suggests the following:

- *Connections and ease of transfers are limited by the lack of service frequency on all routes but Route 80. This is compounded by irregular service frequencies that make timed-transfers difficult if not impossible. For example, Route 90 has a consistent 15 minute frequency in the peak hour, but the schedule varies from every 10 minutes to 19 minutes in the shoulders. This creates challenges for connections with local bus services. Route 85 has consistent frequencies (60 minutes), but while it connects with the Vallejo Ferry, coordinated schedules are not possible due to the ferry’s inconsistent schedule.*
- *Either all the services need to be scheduled consistently (at a 15 or 30 minute pulse) or all the service has to operate often enough so that the transfer wait time is reasonable (every 15 minutes works for intercity services).*

This conclusion is supported by the level of service information provided in Section 2.2.1.2 of this Coordination Analysis that shows a lack of frequency and regularity in the scheduled services connecting at the major transit hubs throughout the County, as well as the problem of synchronizing meets (pulsing) at more than one location along a bus route. For example, both FAST Routes 30 and 40 lack uniform headways needed to effectively connect with local bus services pulses at FTC and VTC. In contrast, FAST Route 20 has uniform, hourly, headways that allow it to meet the local bus pulse at VTC. However it misses the pulse at FTC and its lack of frequency results in long wait times between buses. So, both consistency and frequency are needed to help ensure effective service coordination.

The qualitative results of the intercity bus routes performance evaluation included in the Transit Corridor Study are summarized as follows:

- *Solano County intercity bus and ferry services have captured reasonable market share in some markets even without consistent service frequencies and high quality passenger amenities.*
- *The services are also providing better amenities and facilities that contribute to faster speeds and more reliable service appears warranted.*

Both of these findings are being evaluated in the preliminary service alternative recommendations of the Transit Corridor Study to improve the performance of intercity bus routes by modifying or consolidating the existing 7 routes serving transit centers and operating more frequently and on regular headways. At the time of this Coordination Analysis, the Transit Corridor Study recommendations are being refined and discussed, but are expected to enhance service for city-to-city and county-to-county travel, including better connections with local services. The Corridor Study addresses current travel needs as well as forecast future travel. The evaluation and preliminary recommendations of the Transit Corridor Study are incorporated into this Coordination Analysis by reference.

## 2.2.4 Schedule Coordination

### 2.2.4.1 Current Practice

Table 8 shows the current scheduling practices of the four fixed route bus operators derived from the operators’ responses.

**Table 8: Solano Fixed Route Transit Operators’ Current Scheduling Practices**

| Item                                 | Agency  |   |   |   |
|--------------------------------------|---|---|---|---|
|                                      | SolTrans  | FAST  | VCC                                       | RVDB  |
| Schedule Change Dates                | July 1 – start of fiscal year or August – start of school year (major), as needed otherwise | Anytime   | Typically in January and July             | January 2 (minor), July 1 (major)   |
| Schedule Preparation                 | Staff uses Excel and Contractor inputs schedules to Trapeze for run cutting                 | Staff with contractor collaboration             | Staff with contractor collaboration       | Staff with contractor collaboration   |
| Scheduling Software                  | Excel, Trapeze FX   | Excel   | Excel                                     | Excel   |
| Inter-Operator Schedule Coordination | Directly with FAST and through Consortium.  | With SolTrans, VCC and RVDB through Consortium. | With FAST directly and through Consortium | With SolTrans and FAST through Consortium, directly with Capitol Corridor and Greyhound |
| Customer                             | MTC 511,SNCI  | MTC 511,  | MTC 511, SNCI                             | MTC 511,  |

| Item                         | Agency   |                      |     |                      |
|------------------------------|----------|----------------------|-----|----------------------|
|                              | SolTrans | FAST                 | VCC | RVDB                 |
| Travel Planning Coordination |          | Google Transit, SNCI |     | Google Transit, SNCI |

Based on these responses, it appears that operators typically provide each other with the printed and/or Excel files schedules of their connecting bus routes to facilitate schedule coordination at designated transfer points. When changes to local bus services are proposed, the operator initiating the change informs connecting intercity bus operators and provides the changes so the other operators can consider coordinating their intercity bus schedules with the local bus schedules.

In the opposite situation, when changes to intercity bus service are proposed, the operator initiating the change informs the Consortium and only implements changes with approval of the Consortium and, ultimately, STA. The exception to this last procedure is that operators providing intercity services that are not subject to the Intercity Transit Funding Agreement (RVDB Routes 50 and 52 and SolTrans Routes 76 and 80S) are not required to seek Consortium and STA approval. However, they do attempt to coordinate with connecting operators.

#### 2.2.4.2 Scheduling Software Options

MTC requested that considerations be given to integrating bus/rail scheduling software to facilitate schedule coordination and customer travel planning. This section discusses the advantages and disadvantages of using computerized fixed route schedule systems software, such as Trapeze FX™, to integrate transit services and increase customer convenience. It is worth noting that scheduling software is typically a component of a more robust array of software designed to link service scheduling to the resources needed to provide the service (buses and drivers). The primary value of this software is its ability to determine and optimize (minimize the cost of) the number of buses and drivers needed to deliver daily fixed route service.

A secondary benefit is to provide a data base for route, stop and schedule information that can interface with other systems such as Computer Assisted Dispatch (CAD), Automatic Vehicle Location (AVL), and other information systems. These computer-based systems fall into the category of Intelligent Transportation Systems (ITS) and are subject to the region's Bay Area ITS Architecture protocol.

In regards to coordination, two objectives or benefits of scheduling software are as follows:

- **Output to Customer Service Systems** – 511 Trip Planner and other customer service systems could benefit from receiving input from the 5 operators' scheduling systems in a consistent and readily useable electronic format.

- **Output to Operator Scheduling Systems** - Schedulers could benefit from receiving electronic file input in “native format” from another operator’s scheduling system when building schedules for inter-operator coordination at connecting points.

For these outcomes to happen, each operator may or may not have to own a computer based scheduling system. All of the operators develop their own schedules (in Excel) and require their contractor to use the Excel schedule files to perform bus blocking and driver run-cutting and feed on-board Automatic Vehicle Location, Automated Bus Stop Annunciation and Electronic Fare Collection systems. In the case of SolTrans, their contractor uses Trapeze FX software for these purposes. Likewise, staff provides schedules in Excel format to 511.

The options to the existing scheduling methodology would be to: (i) require contractors to provide a particular scheduling system (Trapeze FX, Giro Hastus, etc.) and have them share files to coordinate services; (ii) collectively procure and install a particular scheduling system at each agency and require staff and contractors to use it; (iii) collectively procure a particular scheduling system and create a central scheduling office that all agencies would use; or (iv) hire someone to integrate different scheduling systems outputs on the “back end” for input to each other’s customer service and scheduling systems. (This is what 511 does with the disparate outputs it receives from all the region’s operators.) These options are detailed in Table 9.

**Table 9: Options for Inter-Operator Scheduling Coordination**

| Option     | Scheduling Software Options  | Pros   | Cons   |
|------------|--|--|--|
| Status Quo | Continue current manual scheduling practice with each agency staff individually using Excel and sharing files and printed materials.                 | Uniform scheduling and import/export   | Inefficient - requires each agency to manually input schedule data from one system to another<br>Computer assisted resource optimization not comprehensively applied across all services             |
| 1          | Require contractors to provide common scheduling software, developing schedules and sharing files; Staff continue using Excel for initial schedules. | Uniform scheduling and import/export<br>Possibly more efficient file sharing   | Computer assisted resource optimization not comprehensively applied across all services<br>Could increase contract operating cost rates for some operators as contractors cover cost of new software |
| 2          | Procure common software for each operator and require all operators’ staffs and contractors to use it and share files with others.                   | Uniform scheduling and import/export<br>Possibly more efficient scheduling and file sharing<br>Possible improvement in resource optimization | Capital cost of implementing new scheduling system at each operator<br>Possible loss of staff productivity during learning period and added operating costs of staff to use new software             |

| Option | Scheduling Software Options   | Pros  | Cons  |
|--------|---|---|---|
|        |   | for some operators.   | Computer assisted resource optimization not comprehensively applied across all services.  |
| 3      | Procure common software; Establish central scheduling office shared by all operators.                               | Uniform scheduling and import/export<br>Staff efficiency of electronic scheduling and interfaces with other systems<br>Computer assisted resource optimization comprehensively applied across all services. | Capital cost of implementing a new central scheduling system and office<br>Possible organizational challenges and collaboration issues<br>Possible loss of individual operator control over service schedules |
| 4      | Existing with integration of disparate data formats at back end for sharing/interface between operators and others. | Uniform scheduling and import/export<br>Possibly more efficient file sharing  | Possible increase in operating costs to cover development of and operation of data integration process<br>Computer assisted resource optimization not comprehensively applied across all services             |

The following recommendations should be further discussed by the Consortium:

- Option 2 is not recommended since it would likely be costly to implement and not suited for small operators without dedicated scheduling staff. For example, SolTrans records for the purchase, installation, training and license fees for Trapeze FX indicate costs to be on the order of \$50,000 initially and \$15,000 annually, without including staff time.
- Options 1 and 4 could provide some benefit over the existing sharing of Excel files and should be further discussed by the operators.
- Option 3 holds the greatest possibility of providing substantial benefit to service coordination and resource optimization between operators. However, it could also require significant investment to procure and install software, and require organizational change to establish and operate an appropriately staffed central scheduling office that meets the needs of each operator individually and all operators collectively. Therefore, to address the need to be cost effective, the Consortium should consider utilizing the existing Trapeze FX software owned by SolTrans, as well as employing SolTrans staff to provide for inter-operator schedule connectivity and export of schedules to 511 on behalf of the four fixed route operators.

The total number of connections possible is small; as a result, the scale of opportunities for schedule coordination is small and the current system of coordinating Excel files seems to work well. However, if the operators and STA

decide that a more formal and systematic scheduling process (perhaps in alignment with future service increases) is desired, then the most reasonable and cost-effective scenario would assign SolTrans the task of developing schedules for the connecting services of all the county operators through its existing Trapeze FX software. This scenario identifies SolTrans as providing a service to the other operators as a contractor and part of its scope-of-services would include schedule coordination across all operators. In addition, consideration should be given to utilizing the SolTrans Trapeze FX schedule interface with customer travel information systems in accordance with Bay Area ITS Architecture protocol.

In summary, the Consortium might consider continuing the system of coordinating Excel files for the next 2 or 3 years, but doing so on a regularly scheduled basis and incorporated into the Schedule Change Calendar recommended below. The need for pulse scheduling should be considered as schedule changes are being proposed. During this 2-3 year time period, SolTrans will have fully implemented Trapeze FX for its purposes, potential intercity bus service changes will be defined in the Transit Corridor Study, and further information about the need and benefit of using a common software for scheduling purposes may be available. At that point, Option 3 can be further considered for implementation.

### **2.2.4.3 Schedule Change Calendar**

As requested by MTC, consideration was given to how the schedule change calendar might be aligned. The Consortium currently works together through open dialogue to discuss route changes and route change timing to ensure it is performed in a logical and as seamless impact to the public as possible. The added benefits of aligning the schedule change calendar are to facilitate synchronizing schedule changes between connecting operators to assure that there is no disruption to connectivity between services due to the offset of time between separate change dates. It appears that operators have the flexibility to choose a common schedule change date and that July 1 is currently a common date.

An argument against a common date is that it requires changes to occur only on that date which can be too inflexible for operators dealing with specific time sensitive issues. However, it appears that operators currently have the flexibility to request that changes occur on other than a single, common date. Another obstacle would be providing enough lead time to satisfy the affected operators needs to provide adequate notice to the public and to contractors and other stakeholders, including obtaining necessary approvals from policy Boards.

The following recommendations should be discussed and considered for adoption, as appropriate, by the Consortium:

- For the purpose of assuring inter-operator service connectivity, the Consortium should establish common schedule change dates of July 1 and January 1 of each year; and

- The Consortium should consider and discuss procedures to establish a common schedule change timeline, shown below in Table 10, for purposes of inter-operator schedule coordination.
- Operators may make changes to routes and schedules that do not affect established inter-operator connections (for example, minor route changes or schedule adjustments while maintaining the same scheduled time at the connection point) or that are required for budgetary purposes, at any time during the year.

**Table 10: Proposed Common Schedule Change Timeline**

| Month / Date | Activity  |
|--------------|---|
| February     | Meet with Consortium to review potential schedule changes   |
| March        | Work with operators to coordinate schedules at key transfer points  |
| April        | Present proposed schedule changes, and conduct public process for schedule change acceptance and approval |
| May          | Obtain approvals, finalize schedule changes, disseminate to other agencies                                |
| June         | Conduct marketing and distribute public information to public   |
| July 1       | Schedule changes become effective   |

### 2.2.5 MTC Resolution 3866 Implementation

Resolution 3866 sets the regional coordination rules and requirements for all the region's transit operators, including all five operators in Solano County.

Generally speaking, these requirements focus on four coordination activities: (i) SB 602 revenue sharing agreements; (ii) Clipper implementation; (iii) 511 Transit Information support; and (iv) Regional Transit Hubs Signage.

- **SB 602** – This requires all connecting operators to coordinate fares through interagency revenue sharing agreements. In 1997, STA acted to comply with SB 602, and successor SB 1474 legislation, by forming an Intercity Transit Consortium of the transit operators in Solano County through an amendment to the STA JPA for the purpose of coordinating services and fares. A Memorandum of Understanding among the operators was developed and subsequent agreements were enacted. A documents request of the operators has shown that some of the required agreements exist, but many do not. Fares are being coordinated informally, however, through inter-agency staff cooperation, primarily for the exchange of transfers as local fare credits. There is no revenue sharing taking place since transfers credits are reciprocal and no operators anticipate a disproportionate loss of fare revenues. However, the Intercity Transit Funding Agreement addresses the operators' sharing of financial and administrative responsibilities for supporting intercity bus services. Fare coordination is further described in the next Section.
- **511 Transit Information** – This is the regional web-based customer information service that includes Transit Trip Planner functionality.

Transit operators are required to provide 511 with up-to-date route and schedule information to support 511's Trip Planner function and to assist with the implementation of "real time" transit information. As described in Section 2.2.4.1, all operators are submitting to MTC 511 their routes and schedules, fares and landmarks in Excel files which meet the General Transit Feed Specification used by 511. 511 staff then apply a Quality Control check and adjusts the files as necessary to feed the 511 database. According to 511 staff, it would be preferable to receive operators' route and schedule data in Trapeze format because 511 has automated that feed into the database so it can be done quickly and more accurately than using Excel. SolTrans is the only Solano County operator that owns Trapeze scheduling software. 511 staff also noted that a few of the Solano operators do not submit schedule changes in a timely manner. In addition to the exchange of "static" transit information with 511, SolTrans, Rio Vista, VCC and FAST are working with MTC staff towards providing 511 with real time, "dynamic", fixed route transit information collected by their respective AVL systems. Section 2.2.4.2 identified the longer term potential of establishing a central scheduling system at SolTrans for all Solano transit operators and utilizing Trapeze FX as a cost-efficient means of coordinating schedules and improving the feed of data to 511.

- **Regional Transit Hub Signage** – This is a program to improve customer information at designated regional transit centers. Solano County has two regional transit hubs designated by MTC: Vallejo Ferry Terminal and Fairfield Transportation Center. City of Vallejo is working with MTC to install new static way-finding signage and general transit information displays and real time messaging signage at the ferry terminal and adjacent bus transit center. The work is estimated to be completed by the end of FY2012/13 at a cost of \$716,000 funded by RM2 revenues. Concurrently, SolTrans is pursuing a capital project to install AVL for tracking on-time performance and sending these data to the real time signage. In June 2011, City of Fairfield completed the first phase of the FTC Hub Signage project which is the installation of the static way finding signage. The next phase of the project is the installation of active screens that will show real time information. Staff estimates that the infrastructure will be in place within a year. Prior to that, Fairfield intends to display static information on the screens as an interim measure. The signage work is estimated to be completed by the end of FY2012/13 at a cost of over \$100,000 funded by RM2 revenues.

## 2.3 Fare Coordination

The essential elements of fare coordination include the fare policies, fare structures, fare media and prices that determine how fare payment affects the potential and existing transit customer. In general, it is desirable that fare payment not be an obstacle to transit use and the fare be commensurate to the value of the service customers receive. As with service planning, the focus of this

analysis will be on fare coordination for intercity transit services and those particular customers.

### 2.3.1 Current Fare Coordination

There are no countywide policies regarding fares for intercity transit travel. Each operator relies on its particular agency's fare policy, staff and operating environment to establish the structure, media and pricing applied to its piece of the countywide transit network. The result is a variety of fare rules, media and prices overlaying a coordinated inter-operator transfer procedure whereby each operator accepts another operator's paper transfers for a fare credit.

Table 11 shows the fare structure, media and pricing of the five transit operators in Solano County, all of whom have a role providing direct intercity service (SolTrans, FAST, RVDB) and/or the local connecting services (SolTrans, FAST, VCC, Readi-Ride).

**Table 11: Solano Transit Operators Fare Structure**

|                   | SolTrans  | FAST  | VCC  | RVDB   | Readi-Ride             |
|-------------------|---|---|--|--|------------------------|
| Intercity Fares   |   |   |  |  |                        |
| Single Zone       | \$5.00  |   |  | \$6.00 + \$1.00<br>for deviations  |                        |
| Multiple Zones    |   | \$2.75 - \$6.75   |  |  |                        |
| Local Fares       | \$1.75  | \$1.50  | \$1.50   | \$1.75   | \$2.00                 |
| Discount Fares    |   |   |  |  |                        |
| Children          | 5 and under<br>free   | 5 and under<br>free   | 5 and under<br>free  | 4 and under<br>free  | 4 and under<br>\$1.00  |
| Youth             | 6-18 \$1.50<br>local, \$4.00<br>zone  | none  | 6-17 \$1.25  | none   | 5-17 \$1.75            |
| Seniors           | 65+ half fare   | 65+ half fare   | 62+ half fare  | 55+ \$0.75<br>local, half fare<br>zone   | 60+ \$1.50             |
| Disabled/Medicare | half fare   | half fare   | half fare  | \$0.75   |                        |
| Pre-paid media    | Local and<br>Zone<br>10 ride, Day<br>and Month<br>passes  | Local and<br>Zone<br>10 ride and 31<br>day passes                                     | Day, Month<br>20 ride and 30<br>ride passes  | Month and 10<br>ride passes  | 20 ride<br>coupon book |
| Transfers         | Inter-operator<br>only, Issued at<br>entry or exit,<br>90 min<br>WD/120 min<br>WE expiration,<br>local fare<br>credit | Issued at entry<br>or exit, 60 min<br>expiration,<br>\$1.50 inter-<br>operator credit | Issued at entry,<br>15 cent fee, 60<br>min.<br>expiration,<br>Inter-operator<br>local fare<br>credit | Issued at entry<br>or exit, 60 min.<br>expiration,<br>Inter-operator<br>local fare<br>credit | none                   |

### 2.3.2 Fare Coordination Objectives and Analysis

As stated before, it is desirable that fare payment not be an obstacle to transit use and the fare be commensurate to the value of the service customers receive. In addition, for inter-operator fare coordination, it is typical to also avoid or minimize any lost revenue that might be associated with standardizing fares, in particular when one operator has to lower or forego collecting a fare to match another operator.

For intercity travel on a single operator, the rider needs to know that particular operator's fare structure and have the proper amount of cash or a valid pre-paid pass. For intercity travel on two or more operators, the rider needs to know the fare structure of each operator, have the proper cash or passes, and request and understand the transfer rules. While the transfer rules somewhat uniformly offer a local fare credit when transferring between local and intercity routes, riders need to be aware of discount eligibility and expiration time – especially if using more than two routes to complete their travel.

For example, a full adult cash ride between Vacaville and Vallejo could require a \$1.50 local ride on VCC, transfer to FAST #20 for \$1.25 (\$2.75 - \$1.50 local fare credit), transfer to SolTrans #85 for \$3.25 (\$5.00 - \$1.75 local credit), and a final transfer to a SolTrans local route for an additional \$1.75 charge. Under the best conditions the trip would likely take over 90 minutes to complete (at a total fare of \$7.75) and, since the original transfer received on the VCC bus expires in 60 minutes and since transfers are valid only where routes intersect, the rider would need to ask for additional transfers on the FAST #20 bus. Such an example might be considered a worst case scenario, however it is more likely for travel to and from locations in the northern part of Solano County.

Table 12 shows the number of operators required for intercity travel within the County.

**Table 12: Number of Transit Operators Required for Intercity Travel  
(excludes RVDB #54)**

| From/To          | Vallejo | Benicia   | Fairfield/<br>Suisun | Rio Vista | Vacaville | Dixon     |
|------------------|---------|-----------|----------------------|-----------|-----------|-----------|
| Vallejo          |         | 1         | 1 or 2               | 2         | 2 or 3    | 2 or 3    |
| Benicia          | 1       |           | 1 or 2               | 2         | 1, 2 or 3 | 1, 2 or 3 |
| Fairfield/Suisun | 1 or 2  | 1 or 2    |                      | 1 or 2    | 1 or 2    | 1 or 2    |
| Rio Vista        | 2       | 2         | 1 or 2               |           | 2 or 3    | 2 or 3    |
| Vacaville        | 2 or 3  | 1, 2 or 3 | 1 or 2               | 2 or 3    |           | 1, 2 or 3 |
| Dixon            | 2 or 3  | 1, 2 or 3 | 1 or 2               | 2 or 3    | 1, 2 or 3 |           |

Table 13 shows the minimum adult (non-discounted) cash fare required for intercity travel. They assume riding only the intercity bus routes with no need for a local connecting bus ride.

**Table 13: Minimum Adult Cash Fare Required for Intercity Travel  
(excludes RVDB #54)**

| From/To          | Vallejo | Benicia | Fairfield/<br>Suisun | Rio Vista | Vacaville | Dixon  |
|------------------|---------|---------|----------------------|-----------|-----------|--------|
| Vallejo          |         | \$5.00  | \$5.00               | \$9.25    | \$6.25    | \$7.25 |
| Benicia          | \$5.00  |         | \$3.75               | \$8.00    | \$4.75    | \$6.75 |
| Fairfield/Suisun | \$5.00  | \$3.75  |                      | \$6.00    | \$2.75    | \$3.75 |
| Rio Vista        | \$9.25  | \$8.25  | \$6.00               |           | \$7.25    | \$8.25 |
| Vacaville        | \$6.00  | \$4.75  | \$2.75               | \$7.00    |           | \$2.75 |
| Dixon            | \$7.00  | \$6.75  | \$3.75               | \$8.00    | \$2.75    |        |

Generally speaking, the pricing of inter-city transit is inconsistent across the county with relatively lower fares required for FAST use between Fairfield, Vacaville and Dixon, compared to the higher fare for comparable distance traveled on SolTrans between Vallejo and Fairfield and Vallejo and Benicia, and the highest fares on RVDB to and from Rio Vista.

It is reasonable to conclude that current fare payment procedures and pricing for inter-operator travel could be an impediment to inter-operator transit use. Fare coordination to improve and simplify inter-operator travel should be a high priority within Solano County.

### 2.3.3 Fare Standardization Examples

MTC has requested that the subject of fare standardization be addressed in Solano County. MTC considers fare standardization to possibly be a means to overcome an impediment to inter-operator transit use imposed by multiple transit operators' fare policies and structures. For purposes of discussion, and perhaps to inform the development of common business rules for the upcoming Clipper implementation in Solano and Napa counties, inter-operator fare standardization examples are presented to assess the obstacles to implementing standardized fares in Solano County.

A primary consideration in setting standard fares is to minimize impacts on transit operator ridership and revenue by finding fare values that are nearest to what the existing fares are. The key assumption in determining whether a fare change would result in a revenue gain or loss is the generally accepted low price sensitivity (price inelasticity) of transit riders to fare changes: a fare increase will increase revenue while a fare decrease will reduce revenue because the % change in ridership resulting from a change in fare is usually less than the % change in fare.

Table 11 clearly shows that there is a wide range in the existing fares of the five Solano County transit operators and there is no single fare, in each fare category, which all operators are near. So, an approach to assessing fare standardization is to create two fare standardization examples that identify the range in possible

ridership and revenue impacts. The first example chooses the highest fare value in each category, and raises all lower fare values to equal it. In this manner, no operator will suffer significant revenue loss, and some operators will gain revenue. This is particularly important to operators whose fare recovery is at the minimum levels required by TDA: 20% for fixed route and 10% for DAR. The second example chooses the lowest fare value, in each category, and lowers all higher fare values to equal it. In this manner, no operator will impose a significant fare increase, but some operators will lose revenue.

In this assessment, Dixon Read-Ride and Rio Vista Delta Breeze fares were not considered since their fares are higher than the other operators reflecting a 100% DFR/DAR rural transit service. Only fixed route urban operator fares are included. Also, for intercity fares, a two-tier “flat” fare was considered consistent with Clipper rules for “express” and “upgrade” fare categories. Two examples were assessed:

- **Fare Example 1** – The SolTrans local fare of \$1.75 is used. The SolTrans fare of \$5.00 and 4 zone FAST fare of \$5.75 represent “Upgrade” and “Express” fares, which would likely be revenue neutral to FAST and SolTrans. This standardized fixed route fare example is presented in Table 14.
- **Fare Example 2** – The FAST and VCC local fare of \$1.50 is used. The FAST 2 zone fare of \$2.75 and SolTrans intercity fare of \$5.00 represent “Upgrade” and “Express” fares, which would not substantially increase current fares. This standardized fare example is presented in Table 15.

**Table 14: Standard Fixed Route Fare Example 1**

| Highest Local Fare       | SolTrans  | FAST             | VCC   |
|--------------------------|---|------------------|---|
| \$1.75 full cash         | No change   | 25 cent increase | 25 cent increase                                      |
| \$1.50 youth ages 6 - 17 | No change ages 6 – 17 but 25 cent increase for age 18 | No change        | 25 cents fare increase                                |
| \$0.85 senior ages 65+   | No change   | 10 cent increase | 10 cent increase but \$1.00 increase for ages 62 - 64 |
| \$0.85 disabled          | No change   | 10 cent increase | 10 cent increase                                      |
| \$56 monthly adult pass  | No change   | \$6.00 increase  | \$20.00 increase                                      |

| Highest Intercity “Express” Fare | SolTrans   | FAST  |
|----------------------------------|--|---|
| \$5.75 full cash                 | 75 cents increase  | No change for 4 zone trip but up to \$1.00 increase for 3 zone trip and \$1.00 decrease for 5 zone trip   |
| \$5.75 youth ages 6 - 17         | \$1.75 increase ages 6 – 17 but \$3.00 increase for age 18 | No change for 4 zone trip but up to \$1.00 increase for 3 zone trip and \$1.00 decrease for 5 zone trip   |
| \$2.75 senior ages 65+           | \$0.25 cent increase                                       | No change for 4 zone trip but up to \$.50 increase for 3 zone trip and \$.50 decrease for 5 zone trip     |
| \$2.75 disabled                  | \$0.25 cent increase                                       | No change for 5 zone trip but up to \$.50 increase for 3 zone trip and \$.50 decrease for 5 zone trip     |
| \$130 monthly adult pass         | \$16.00 increase   | No change for 5 zone trip but up to \$20.00 increase for 3 zone trip and \$20.00 decrease for 5 zone trip |

| Highest Intercity “Upgrade” Fare | SolTrans  | FAST                            |
|----------------------------------|-----------|---------------------------------|
| \$5.00 full cash                 | No change | \$2.25 increase for 2 zone trip |
| \$4.00 youth ages 6 - 18         | No change | \$1.25 increase for 2 zone trip |
| \$2.50 senior ages 65+           | No change | \$0.75 increase for 2 zone trip |
| \$2.50 disabled                  | No change | \$0.75 increase for 2 zone trip |
| \$114 monthly adult pass         | No change | \$24 increase for 2 zone trip   |

Note: Uses the highest common fare value to ensure that no operator suffers a significant revenue reduction.

While Example 1 protects or increases operators' fare revenue levels (VCC, SolTrans and FAST would all gain revenue in this example), this particular example of standardization would likely result in a range of 10% to 80% fare increases that may not be acceptable to many existing riders and would reduce ridership on public transit.

**Table 15: Standard Fixed Route Fare Example 2**

| Lowest Local Fare        | SolTrans   | FAST   | VCC       |
|--------------------------|--|--|-----------|
| \$1.50 full cash         | 25 cent decrease   | No change  | No change |
| \$1.25 youth ages 6 - 17 | 5 cent decrease ages 6 – 17 but no change for age 18       | 25 cent decrease                                   | No change |
| \$0.75 senior ages 62+   | 10 cent decrease ages 65+ but \$1.00 decrease ages 62 - 64 | No change ages 65+<br>\$0.75 decrease ages 62 - 64 | No change |
| \$0.75 disabled          | 10 cent decrease   | No change  | No change |
| \$36 monthly adult pass  | \$20 decrease  | \$14 decrease                                      | No change |

| Lowest Intercity “Express” Fare | SolTrans  | FAST   |
|---------------------------------|-----------|--|
| \$5.00 full cash                | No change | \$0.25 increase for 3 zone trip and \$0.75 decrease for 4 zone trip and<br>\$1.75 decrease for 5 zone trip |
| \$4.00 youth ages 6 - 18        | No change | \$0.75 decrease for 3 zone trip and \$1.75 decrease 4 zone trip and \$2.75 decrease for 5 zone trip        |
| \$2.50 senior ages 65+          | No change | \$0.25 increase for 3 zone trip and \$0.25 decrease for 4 zone trip and \$0.75 decrease for 5 zone trip    |
| \$2.50 disabled                 | No change | \$0.25 increase for 3 zone trip and \$0.25 decrease for 4 zone trip and \$0.75 decrease for 5 zone trip    |
| \$114 monthly adult pass        | No change | \$4 increase for 3 zone trip and \$16 decrease for 4 zone trip and \$36 decrease for 5 zone trip           |

| Lowest Intercity “Upgrade” Fare | SolTrans        | FAST                             |
|---------------------------------|-----------------|----------------------------------|
| \$2.75 full cash                | \$2.25 decrease | No change for 2 zone trip        |
| \$2.50 youth ages 6-18          | No change       | 25 cent decrease for 2 zone trip |
| \$1.25 senior ages 65+          | \$1.25 decrease | No change for 2 zone trip        |
| \$1.25 disabled                 | \$1.25 decrease | No change for 2 zone trip        |
| \$70 monthly adult pass         | \$44 decrease   | No change for 2 zone trip        |

Note: Uses the lowest common fare value to ensure that no operator imposes a significant fare increase.

Example 2 avoids imposing large fare increases on existing riders but, in so doing, reduces fares by 10% to 50% for many passenger trips and could significantly reduce operators' fare revenue levels (FAST and SolTrans would both lose revenue in this scenario), unless an unusually large number of new riders switch to public transit. This example would jeopardize meeting TDA fare recovery standards.

Both examples demonstrate the significant challenges to achieving fare coordination by standardizing existing fare values, structures and media of multiple transit operators in Solano County.

### **2.3.4 Conclusion and Recommendation**

In the upcoming year, Solano and Napa county transit operators are planning to improve fare coordination by collaborating with each other and MTC to develop business rules for the implementation of Clipper. Clipper offers a means to introduce a new fare medium to Solano residents at new prices. Clipper has the potential to improve fare coordination for intercity and inter-operator transit use, for example by providing an automatic intra and inter-operator "e-cash" transfer fare credit and a multi-operator pre-paid transit fare payment media (pass) to replace the current combination of cash, passes and paper transfers.

The Change Notice to Cubic Systems for implementation of Clipper in Solano County and Napa County contains the following language and provisions that guide the development of Clipper business rules by the operators:

MTC proposed a simplified implementation of these remaining Bay Area agencies that do not yet accept Clipper<sup>®</sup> as fare payment. As part of the simplified implementation, MTC proposed that the remaining agencies be grouped together and that each group be implemented in the system as a single Clipper<sup>®</sup> operator, Napa Solano in this case.

#### *2.1.1 Fare Structure*

Contractor shall implement a single-tag flat fare structure for the Napa Solano Operator. A fare shall be deducted from the Clipper<sup>®</sup> E-Purse based on the route category selected by the operator. Individual transit routes of Solano County transit operators are grouped into one of the follow categories: local, upgrade, express, baylink.

#### *2.1.2 Fare Categories*

The Napa Solano implementation shall support the four existing Clipper<sup>®</sup> fare categories: Adult, Youth, Senior, and RTC. The Youth and Senior ages to be used at launch shall be provided during formal requirements capture.

#### *2.1.3 Fare Products*

Contractor shall also implement a monthly pass product for Adult, Youth, and Senior/RTC fare categories that is valid for either free travel or a fare credit on all

Napa Solano routes. The passes shall have a validity period of one calendar month, and shall have a vending window and grace period to be defined during formal requirements capture.

#### *2.1.4.1 Intra-Operator Transfer*

Contractor shall create time-based, reduced fare intra-operator transfers for patrons transferring between Napa Solano Operator routes. Patrons shall be entitled to transfer credits between Napa Solano Operator routes if the first ride is paid for with E-Cash or a product. The transfers shall provide a one-time E-Cash discount to patrons taking more than one ride on Napa Solano service within a designated period of time. The discount shall be calculated at point of tagging on the second ride. The value of the discount and transfer period will depend on the route selected by the vehicle operator and shall be provided during formal requirements capture.

#### *2.1.4.2 Inter-Operator Transfers*

Contractor shall create time-based, reduced fare inter-operator transfers to Napa and Solano County Operators from the following operators:

- AC Transit
- BART
- Golden Gate Transit
- SFMTA
- WETA

The transfers shall provide a one-time E-Cash discount to patrons paying with either E-Cash or a product on the first ride and transferring to Napa and Solano County Operators from the prior operator within a designated period of time. The discount shall be calculated at point of tagging on the second ride. The value of the discount and transfer period for each transfer will depend on the route inputted by the operator and shall be provided during formal requirements capture.

Clipper implementation can be a catalyst for improving and simplifying inter-operator travel for Solano County transit riders. In particular, and consistent with the provisions of the Clipper Change Order, the following aspects of inter-operator fare coordination should be addressed by the Consortium when developing, with Napa, Clipper Business Rules and during formal requirements capture:

- Designate Clipper as the coordinated intercity fare media accepted by all operators;
- Designate “upgrade” and “express” categories for intercity routes and set Clipper fares based on the value of intercity service received, transfer convenience, distance traveled and faster speed of travel, and aspire to avoid fare revenue loss, from those existing riders who would switch to

Clipper, on those operators who cannot afford to reduce their current level of fare recovery;

- Provide discounts for frequent travel using pre-paid monthly Clipper passes;
- Continue to give local fare credit for local transfers to/from intercity routes using Clipper and seek consistency in defining the transfer validity period; and
- Seek consistency in defining eligibility for age based Clipper discounts.

## **2.4 Capital Planning Coordination**

### **2.4.1 Current Capital Planning to Support Intercity Transit Services**

As described in Section 2.3, the primary forum for collaborative intercity transit planning in Solano County is the SolanoExpress Intercity Transit Consortium (Consortium) which includes all Solano operators plus STA and the County of Solano. The Consortium and STA work with the individual operators to secure needed capital and operating funding from local, regional, state and federal resources to sustain the intercity services. In terms of capital planning coordination, this includes developing a list of capital needs, identifying local revenues that are available to cover the associated expenses, and determining whether additional funding is required to fully fund intercity capital expenses. STA advocates on behalf of all Consortium members to request discretionary funding from other sources outside Solano County, including working directly with regional, state and federal partners.

Most recently, the operators and STA agreed to a 10-year funding plan that provides for replacement of a total of 34 motor coach buses used for intercity services. Using a formula similar to the method for sharing intercity operating costs, the Consortium members each agreed to take on a proportional share of the vehicle replacement costs. STA has requested MTC's participation in this funding plan based on Solano transit operators providing regional service within the SF/Oakland UZA and service connecting to Bay Area Rapid Transit (BART). This coordinated planning process has several benefits. Defining long term capital needs well in advance allows each participating transit operator or jurisdiction to anticipate—and if necessary set aside funding for—future contributions to shared capital investments. And, demonstrating the joint funding commitments of the multiple Consortium members also creates a more effective basis on which to request external support for a portion of local capital needs.

## 2.4.2 Objectives and Analysis of Coordinated Capital Planning

The most basic objective of coordinated capital planning is to fully identify capital needs and to make the best possible use of all sources of capital funding available to Solano County, distributing such funds equitably amongst the transit operators. As noted above, existing coordination efforts help to ensure that intercity transit services in Solano County have sufficient resources to maintain a state of good repair and also help to support advocacy efforts when external funding is deemed necessary. This approach can be extended beyond intercity capital needs to address the coordinated capital needs of transit operators for their local services. To the extent that different operators might have overlapping needs, coordination can help ensure that projects do not compete against each other for scarce discretionary resources.

To examine the current transit capital needs in Solano County in more detail, Figure 2 and Table 16 below illustrate the 10-year consolidated capital program for all five transit operators, covering all modes and types of service (local fixed route, intercity fixed route, paratransit, and DAR). The graph and table show the total required capital expenses by type of project, regardless of whether full funding has been secured for each project.

In the near term, there is a major spike in capital requirements in FY2012-13 through FY2015-16, due to the significant cost of constructing three major passenger facilities:

- The total cost of the new Fairfield/Vacaville Intermodal Station at Peabody Road is approximately \$65 million, of which about \$9 million has already been expended, leaving \$56 million in remaining project costs. A full funding plan for this project is currently being assembled, as described in more detail below.
- The total cost of multiple projects in and around the Fairfield Transportation Center (FTC) is about \$25 million. This total includes the West Texas Gateway and FTC Utility Relocation, which together cost close to \$5 million. Of this amount, approximately half of the funding has been secured. The remaining \$20 million would be to construct a parking garage to expand capacity at the FTC, but no funds have been identified for this construction. Due to funding uncertainty about this portion of the FTC improvements, the parking expansion is not shown in the table and chart below.
- The total cost of a parking structure and other improvements to the Curtola Park-and-Ride facility is \$10 million. SolTrans is currently developing a funding plan for this project.

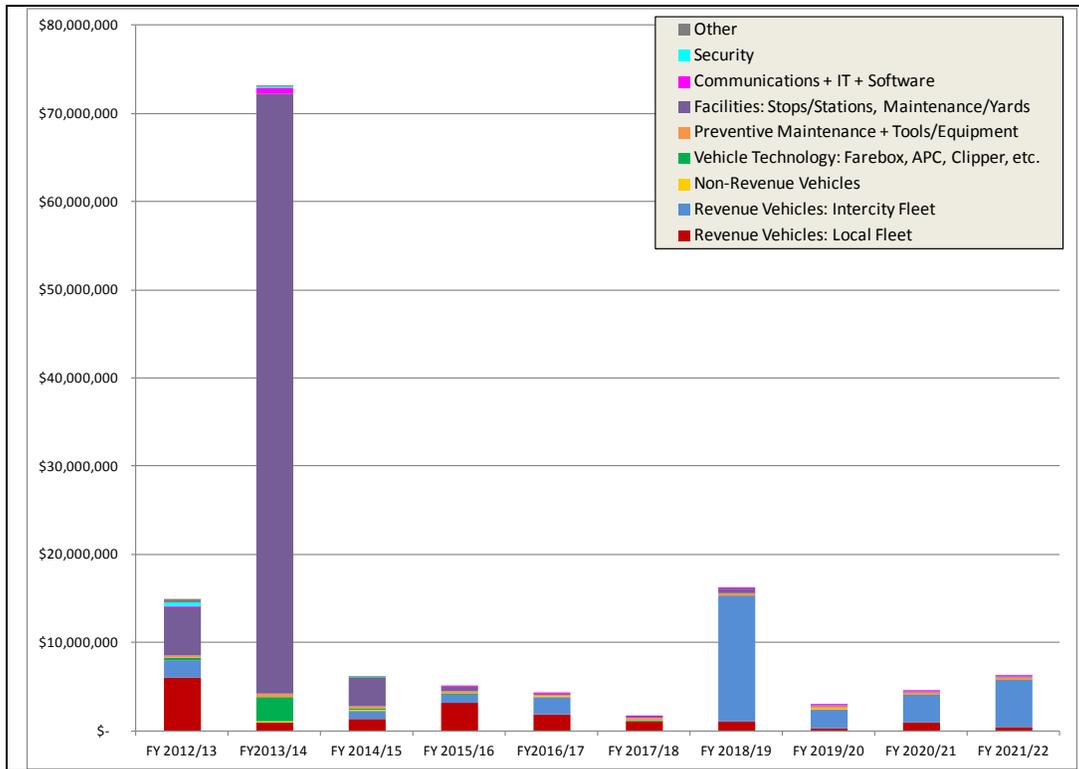
STA will be working with local agencies to fully allocate all RM2 funds during the next year. The funding strategy for the Intermodal Station includes transfer of nearly all unallocated RM2 funding from the Fairfield Transportation Center as well as future phases of the Vacaville Transit Center. A \$9 million TIGER 2013

grant is being sought from the Federal Department of Transportation to fill the gap remaining after those transfers. After the transfers, the only committed RM2 funding remaining for the FTC projects will be \$250,000, which will be used to prepare a scoping document for a design-build construction plan for the parking expansion..

Beyond these three major facilities projects, the sum total of all other capital expenses in the County through FY2017-18 is less than \$32 million, of which nearly \$14 million are for local fleet vehicle replacement and rehabilitation. More than \$28 million of these expenses are anticipated to be funded through committed sources or available reserves. The remaining \$3.4 million will be requested from federal discretionary sources.

Beginning in FY2018-19, the bulk of the required capital expenses are for the intercity bus replacements, with a particularly large contribution required in FY2018-19. The total expense to replace 34 vehicles is over \$29 million, with almost \$25 million coming due within the next ten years. The Consortium members have agreed to a preliminary funding plan which is currently being reviewed by MTC.

**Figure 2: Consolidated Capital Needs by Project Type**



**Table 16: Ten-Year Consolidated Capital Plan by Project Type**

| Detail by Project Type and Funding Source<br>Prepared on 10-Jul-2013   |  | Budget               | Forecast             |                     |                     |                     |                     |                      |                     |                     |                     |
|--|--|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|
|  |  | FY 2012/13           | FY2013/14            | FY 2014/15          | FY 2015/16          | FY2016/17           | FY 2017/18          | FY 2018/19           | FY 2019/20          | FY 2020/21          | FY 2021/22          |
| <b>Capital Expenses By Project Type</b>  |  |                      |                      |                     |                     |                     |                     |                      |                     |                     |                     |
|  | Revenue Vehicles: Local Fleet                      | \$ 6,027,276         | \$ 874,800           | \$ 1,272,680        | \$ 3,109,018        | \$ 1,890,541        | \$ 1,041,262        | \$ 1,005,869         | \$ 323,473          | \$ 866,570          | \$ 351,498          |
|  | Revenue Vehicles: Intercity Fleet [1]              | \$ 1,900,000         | \$ -                 | \$ 931,730          | \$ 980,556          | \$ 1,961,112        | \$ -                | \$ 14,282,389        | \$ 2,081,148        | \$ 3,184,157        | \$ 5,413,066        |
|  | Non-Revenue Vehicles                               | \$ 68,000            | \$ 150,000           | \$ 130,000          | \$ -                | \$ 35,000           | \$ -                | \$ 35,000            | \$ 132,434          | \$ 34,461           | \$ 17,000           |
|  | Vehicle Technology: Farebox, APC, Clipper, etc [2] | \$ 308,750           | \$ 2,839,529         | \$ 135,562          | \$ 155,562          | \$ -                | \$ 175,000          | \$ -                 | \$ -                | \$ -                | \$ -                |
|  | Preventive Maintenance + Tools/Equipment           | \$ 273,465           | \$ 300,000           | \$ 227,500          | \$ 230,100          | \$ 232,700          | \$ 235,400          | \$ 238,200           | \$ 241,000          | \$ 243,900          | \$ 246,900          |
|  | Facilities: Stops/Stations, Maintenance/Yards [3]  | \$ 5,425,000         | \$ 68,132,000        | \$ 3,311,000        | \$ 546,000          | \$ 86,000           | \$ 86,000           | \$ 525,000           | \$ 95,000           | \$ 85,000           | \$ 85,000           |
|  | Communications + IT + Software                     | \$ 171,000           | \$ 555,000           | \$ -                | \$ 20,000           | \$ 20,000           | \$ 20,000           | \$ 20,000            | \$ 20,000           | \$ 20,000           | \$ 20,000           |
|  | Security   | \$ 406,686           | \$ 159,700           | \$ 20,000           | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                |
|  | Other [4]  | \$ 290,000           | \$ 56,250            | \$ 50,000           | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                |
| <b>TOTAL CAPITAL EXPENSES</b>  |  | <b>\$ 14,870,177</b> | <b>\$ 73,067,279</b> | <b>\$ 6,078,472</b> | <b>\$ 5,041,236</b> | <b>\$ 4,225,353</b> | <b>\$ 1,557,662</b> | <b>\$ 16,106,458</b> | <b>\$ 2,893,056</b> | <b>\$ 4,434,088</b> | <b>\$ 6,133,464</b> |
| <p><b>** NOTE: Operators' contributions for intercity fleet replacements (i.e. TDA cross-claim) removed from line items above, to avoid double-counting these transfers on charts.</b></p> <p>[1] As shown in STA letter to MTC (March 5, 2013) regarding plans to fund replacement of Intercity Solano Express Bus fleet. Total vehicle replacement expense is funded by ITFWG contributions--see line item un Capital Revenues - State category. Includes contributions from transit operators <u>plus</u> other sources (Solano County, STA, MTC, federal grants, etc.).</p> <p>[2] Includes commitments from FAST and Vacaville, as specified in Clipper cooperative agreement with MTC &amp; Clipper vendor.</p> <p>[3] Includes cost of multiple planned but unfunded projects including: Curtola P&amp;R, Oliver Road P&amp;R, and Fairfield/Vacaville Intermodal Station at Peabody Rd.</p> <p>[4] Includes costs for bike racks on FAST Intercity coaches, SolTrans decals/signage, Vacaville Accessible Paths to Transit project, and Rio Vista P&amp;R seal-coat.</p> |  |                      |                      |                     |                     |                     |                     |                      |                     |                     |                     |

As noted above, one of the single biggest expense items for most Solano County operators is vehicle replacement—both the major expense of replacing the intercity fleet, as well as periodic renewal of their own vehicles used in fixed route local and paratransit services. Table 17 shows a consolidated fleet replacement schedule for all five operators, combined. The existing and future fleets have been grouped into four types: mini-van, cutaway, local bus and motor coach.<sup>2</sup> The table shows the years that vehicles are physically operating within the active fleet—programming and procurement activities for the new acquisitions would occur in the year(s) prior to the time the acquisitions become active as noted below.

As can be seen in the second section of the table, certain years have much higher numbers of acquisitions than others. If the operators intend to seek federal funding support for a portion of these capital costs, there may not be sufficient funding for all operators to replace all vehicles on the desired schedule. Coordinating the timing of capital funding requests would help to ensure that all vehicles can be replaced as needed to maintain a state of good repair without over-taxing available financial resources.

**Table 17: Consolidated Fleet Replacement Schedule**

| Vehicle Type                          | Number of Vehicles | FY12/13 | FY13/14 | FY14/15 | FY15/16 | FY16/17 | FY17/18 | FY18/19 | FY19/20 | FY20/21 | FY21/22 |
|---------------------------------------|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Existing Active Fleet Totals</b>   |                    |         |         |         |         |         |         |         |         |         |         |
| Paratransit vehicles                  | 39                 | 37      | 33      | 27      | 21      | 19      | 16      | 9       | 1       | 1       | 1       |
| Local buses                           | 66                 | 66      | 54      | 54      | 53      | 50      | 50      | 50      | 50      | 50      | 50      |
| Over-the-road coaches                 | 36                 | 36      | 36      | 36      | 33      | 33      | 30      | 30      | 16      | 14      | 11      |
| <i>Sub-Total: Existing</i>            | 141                | 139     | 123     | 117     | 107     | 102     | 96      | 89      | 67      | 65      | 62      |
| <b>Annual Acquisitions, by Type</b>   |                    |         |         |         |         |         |         |         |         |         |         |
| Paratransit vehicles                  |                    | 0       | 3       | 6       | 7       | 2       | 3       | 7       | 8       | 0       | 0       |
| Local buses                           |                    | 3       | 6       | 0       | 1       | 3       | 0       | 0       | 0       | 0       | 0       |
| Over-the-road coaches                 |                    | 0       | 0       | 0       | 3       | 0       | 3       | 0       | 14      | 2       | 3       |
| <i>Sub-Total: Annual Acquisitions</i> |                    | 3       | 9       | 6       | 11      | 5       | 6       | 7       | 22      | 2       | 3       |
| <b>Cumulative Future Acquisitions</b> |                    |         |         |         |         |         |         |         |         |         |         |
| Paratransit vehicles                  | 40                 | 0       | 3       | 9       | 16      | 18      | 21      | 28      | 36      | 36      | 36      |
| Local buses                           | 13                 | 3       | 9       | 9       | 10      | 13      | 13      | 13      | 13      | 13      | 13      |
| Over-the-road coaches                 | 25                 | 0       | 0       | 0       | 3       | 3       | 6       | 6       | 20      | 22      | 25      |
| <i>Sub-Total: Acquisitions</i>        | 78                 | 3       | 12      | 18      | 29      | 34      | 40      | 47      | 69      | 71      | 74      |
| <b>Total Active Fleet</b>             |                    |         |         |         |         |         |         |         |         |         |         |
| Paratransit vehicles                  |                    | 37      | 36      | 36      | 37      | 37      | 37      | 37      | 37      | 37      | 37      |
| Local buses                           |                    | 69      | 63      | 63      | 63      | 63      | 63      | 63      | 63      | 63      | 63      |
| Over-the-road coaches                 |                    | 36      | 36      | 36      | 36      | 36      | 36      | 36      | 36      | 36      | 36      |
| <b>TOTAL FLEET SIZE</b>               |                    | 142     | 135     | 135     | 136     | 136     | 136     | 136     | 136     | 136     | 136     |

To further highlight the relative timing of Solano County capital requirements, Table 18 below shows the ten-year consolidated capital plan by funding source. The funding is grouped by type into regional, state, and federal categories. The amounts shown for each source represent funding that has already been committed (e.g. Proposition 1B or FTA 5316 JARC grants), or a source can be used entirely

<sup>2</sup>The intercity fleet is composed primarily of MCI diesel, dual rear axle over-the-road motor coaches, but FAST also has two Gillig Phantom diesel buses with one rear axle that are used to provide intercity service. The two Gilligs are being replaced as part of the intercity fleet replacement agreement, and are grouped with the other motor coaches to demonstrate that the intercity fleet size is being maintained.

at the discretion of the operator(s) without further approvals required (e.g., TDA-LTF or FTA 5307 Urbanized Area apportionments). Each funding group also has a line at the bottom labeled “Unspecified” which shows funding that each operator intends to request in the future from various funding partners; in most cases, a specific source has not been identified for these amounts. If the requested funds are not awarded, the operators would have to defer or cancel the related projects.

From the table below, it can be seen that the two largest sources of committed capital revenues are Regional Measure 2 (RM2) and TDA-LTF, each of which is expected to comprise more than \$18 million in capital funding over the course of the ten years shown. A further \$25 million in RM2 is currently committed to other capital projects in Solano County, but is shown as unspecified, because reallocation must be approved by other regional partners. Beyond RM2 and TDA-LTF, other significant individual sources include Proposition 1B, FTA 5307, and FTA 5309, which together total almost \$15 million. Most other committed funding line items are less than \$2 million.

Some of the large infrastructure projects in the capital plan have already received numerous smaller funding commitments including more than \$3 million in local funds, nearly \$15 million in state funds, and nearly \$3 million in federal funds, for a total of \$21 million in committed sources. At the same time, these large projects each have major funding gaps, and need to formally secure approximately \$34 million in additional funding in order to proceed. The bulk of the unspecified funding needed is for projects scheduled for construction within the next five years. Due to the timing and scale of additional funding required, it is recommended that the operators continue to work closely with STA, County officials, and regional partners to agree on how to fund these near-term local priorities. The Solano County operators should also track the developments in FTA discretionary grant programs, which have been restructured under the latest federal authorization known as MAP-21. For example, the three separate 5309 programs have now been consolidated into a single “Fixed Guideway” category, with new guidelines and regulations currently under development. It may be that program redefinitions under MAP-21 would improve the eligibility of these larger infrastructure investments, making them better candidates for federal grant support.

One other issue that will need to be addressed is the degree to which the Solano County operators use their flexible capital funding to subsidize transit operations. Based on current guidelines for federal apportionments, all five transit operators in Solano County are permitted to use their FTA formula funding for operating purposes. This applies to FTA 5307 Urbanized Area apportionments (FAST, SolTrans, and Vacaville City Coach) and FTA 5311 Non-Urbanized Area apportionments (Dixon Redit-Ride and Rio Vista Delta Breeze). Some Solano County operators rely heavily on these apportionments to achieve balanced annual operating budgets. To the extent that this money is being consumed by operating and maintenance expenses, it is not available to pay capital expenses required to maintain a state of good repair. MTC raised this issue with Solano’s three largest transit operators which led to expediting the development of the ten year capital replacement funding plan for intercity buses. From the table below, it can be seen

that the total amount of capital funding coming from these federal programs is a little over \$5 million. The bulk of this amount is for expenditures planned in FY2012-13 and FY2013-14; less than half a million dollars in FTA formula funding is planned to be used for capital expenditures beyond FY2013-14.

While the use of FTA funds for capital projects is somewhat limited, there are significant commitments of local and state revenues to fund planned capital projects. In all years of the plan, the anticipated use of state and local funds exceeds planned use of federal sources for capital. The main reason for shifting the FTA formula funds to operating is to ensure those funds are fully utilized each year, and before the federal apportionment lapses. This allows operators to accumulate TDA carryover reserves which can be used more flexibly than the federal sources. TDA reserves can be an important source of non-federal matching funds for any new federal opportunities that may become available. This is particularly important because Solano County does not have a transportation sales tax.

**Table 18: Ten-Year Consolidated Capital Plan by Funding Source**

| Detail by Project Type and Funding Source<br>Prepared on 10-Jul-2013 |       | Budget               | Forecast             |                     |                     |                     |                     |                      |                     |                     |                     |                  |
|--|-------|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|------------------|
|  |       | FY 2012/13           | FY 2013/14           | FY 2014/15          | FY 2015/16          | FY 2016/17          | FY 2017/18          | FY 2018/19           | FY 2019/20          | FY 2020/21          | FY 2021/22          |                  |
| <b>Capital Revenues – Local</b>                                      |       |                      |                      |                     |                     |                     |                     |                      |                     |                     |                     |                  |
| Regional Measure 2 Capital   | [5]   | \$ 2,130,000         | \$ 15,960,154        | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| Air District (BAAQMD / YSAQMD)                                       | [6]   | \$ -                 | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ 12,500        |
| Misc Local Funds (Committed)   | [6]   | \$ -                 | \$ 3,255,000         | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| Unspecified Local Funds (Source TBD)                                 | [6,7] | \$ 500,000           | \$ 21,785,000        | \$ 2,650,000        | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| <b>Subtotal: LOCAL Revenue</b>                                       |       | <b>\$ 2,630,000</b>  | <b>\$ 41,000,154</b> | <b>\$ 2,650,000</b> | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ -</b>          | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ 12,500</b> |
| <b>Capital Revenues – State</b>                                      |       |                      |                      |                     |                     |                     |                     |                      |                     |                     |                     |                  |
| TDA: LTF   |       | \$ 3,245,487         | \$ 1,684,893         | \$ 1,425,523        | \$ 1,088,269        | \$ 873,040          | \$ 1,273,662        | \$ 9,360,714         | \$ 1,859,360        | \$ 2,777,823        | \$ 3,644,942        | \$ -             |
| TDA: STAF  |       | \$ 1,062,464         | \$ 14,679            | \$ -                | \$ 193,822          | \$ 387,645          | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| Prop 1B (e.g., PTMISEA, CTAF)  | [8]   | \$ 2,409,601         | \$ 829,826           | \$ 1,072,292        | \$ 1,422,296        | \$ 1,573,468        | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| (EXTERNAL) ITFWG Fleet Contributions **                              | [1]   | \$ -                 | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -                | \$ 5,791,049         | \$ 843,839          | \$ 1,291,073        | \$ 2,194,824        | \$ -             |
| Misc State Funds (Committed)   | [9]   | \$ 40,000            | \$ 14,900,000        | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| <b>Subtotal: STATE Revenue</b>                                       |       | <b>\$ 6,757,552</b>  | <b>\$ 17,429,398</b> | <b>\$ 2,497,815</b> | <b>\$ 2,704,387</b> | <b>\$ 2,834,153</b> | <b>\$ 1,273,662</b> | <b>\$ 15,151,763</b> | <b>\$ 2,703,198</b> | <b>\$ 4,068,896</b> | <b>\$ 5,839,766</b> | <b>\$ -</b>      |
| <b>Capital Revenues – Federal</b>                                    |       |                      |                      |                     |                     |                     |                     |                      |                     |                     |                     |                  |
| MTC OBAG (Federal sources: STP / CMAQ / TE)                          |       | \$ 232,000           | \$ 232,000           | \$ 232,000          | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| FTA5307: Urbanized Area  |       | \$ 2,472,359         | \$ 2,103,314         | \$ -                | \$ 200,000          | \$ -                | \$ -                | \$ 80,000            | \$ -                | \$ -                | \$ -                | \$ -             |
| FTA5307: ARRA (carryover)  |       | \$ -                 | \$ 286,061           | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| FTA5309: Bus Program   |       | \$ 2,360,399         | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| FTA5310: Elderly & Disabled  |       | \$ -                 | \$ 4,413             | \$ 134,400          | \$ -                | \$ 93,600           | \$ 284,000          | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| FTA5311: Non-Urbanized Area (Capital)                                |       | \$ -                 | \$ 25,000            | \$ -                | \$ -                | \$ -                | \$ -                | \$ 70,000            | \$ -                | \$ -                | \$ -                | \$ -             |
| FTA5316: JARC (Capital)  |       | \$ 61,282            | \$ 112,200           | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| FTA5339: Bus & Bus Facilities  |       | \$ -                 | \$ 541,328           | \$ 564,257          | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| Misc Federal Funds (Committed)                                       |       | \$ 631,368           | \$ 2,333,411         | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                 | \$ -                | \$ -                | \$ -                | \$ -             |
| Unspecified Federal Funds (Source TBD)                               | [10]  | \$ -                 | \$ 9,000,000         | \$ -                | \$ 2,136,848        | \$ 1,297,600        | \$ -                | \$ 804,695           | \$ 189,858          | \$ 365,192          | \$ 281,198          | \$ -             |
| <b>Subtotal: FEDERAL Revenue</b>                                     |       | <b>\$ 5,757,408</b>  | <b>\$ 14,637,727</b> | <b>\$ 930,657</b>   | <b>\$ 2,336,848</b> | <b>\$ 1,391,200</b> | <b>\$ 284,000</b>   | <b>\$ 954,695</b>    | <b>\$ 189,858</b>   | <b>\$ 365,192</b>   | <b>\$ 281,198</b>   | <b>\$ -</b>      |
| <b>TOTAL EXPECTED REVENUES</b>                                       |       | <b>\$ 15,144,960</b> | <b>\$ 73,067,279</b> | <b>\$ 6,078,472</b> | <b>\$ 5,041,236</b> | <b>\$ 4,225,353</b> | <b>\$ 1,557,662</b> | <b>\$ 16,106,458</b> | <b>\$ 2,893,056</b> | <b>\$ 4,434,088</b> | <b>\$ 6,133,464</b> | <b>\$ -</b>      |

**\*\* NOTE: Operators' contributions for intercity fleet replacements (i.e. TDA cross-claim) removed from line items above, to avoid double-counting these transfers on charts.**

[1] As shown in STA letter to MTC (March 5, 2013) regarding plans to fund replacement of Intercity Solano Express Bus fleet. Total vehicle replacement expense is funded by ITFWG contributions--see line item un Capital Revenues - State category. Includes contributions from transit operators plus other sources (Solano County, STA, MTC, federal grants, etc.).

[5] Committed RM2 only; funds requested but not yet confirmed included in "Unspecified Local Funds (Source TBD)."

[6] Funds to be requested for planned projects; if funding is not received, projects would be deferred/cancelled.

[7] Funds shown as "Unspecified Local" will be requested from Regional Measure 2 program.

[8] Proposition 1B revenue program is expected to sunset in 2017.

[9] FY2012/13 amount is Lifeline STP allocation for VCC Accessible Paths to Transit proj. FY2014/15 amount includes all committed State sources for Fairfield/Vacaville Intermodal Station.

[10] Includes amounts to be requested from federal sources for unfunded balance on Fairfield/Vacaville Intermodal Stn, plus 80% of vehicle replacement/rehab in future years

### 2.4.3 Opportunities to Enhance Capital Planning

Through the Consortium, Solano County transit operators communicate regularly about their respective capital planning and programming activities. As requested by MTC, this section summarizes information about current and potential efforts to improve capital planning and procurement. The “Opportunities” section highlights available methods to reduce costs and streamline delivery. Many of these strategies are already being utilized by one or more transit operators in Solano County.

#### 2.4.3.1 Opportunities

In addition to enhancing the process of planning for future capital needs, coordination can also help reduce the cost of delivering capital projects. One of the most significant opportunities in this area is joint procurement of assets, materials, supplies, and services. Joint procurement provides multiple types of benefits to transit operators which are described below.

One of the simplest types of cooperative capital planning is shared use of capital equipment and facilities as a means to avoid buying or constructing separate assets. For example, the previously mentioned sharing of SolTrans Trapeze scheduling software would eliminate the need for each operator to buy its own system. Also, Rio Vista is planning to buy more advanced fareboxes, and may be able to take used fareboxes from other operators after they are replaced instead of buying entirely new units. Dixon has also considered acquiring used bus shelters from Vacaville City Coach.

When purchases of new materials and equipment are necessary, buying in bulk can potentially result in a lower cost per unit from the manufacturer or supplier. Whether purchasing major assets like vehicles, ordering consumable supplies like fuel and oil, or negotiating service contracts such as landscape maintenance or vehicle cleaning, if operators can consolidate their ordering into a single purchase, they may be able to negotiate lower prices. Though not strictly a capital expense, an effort is currently underway to consider joint procurement of an advertising contract with Napa.

A second area of cost savings could be in the efforts to develop technical specifications for custom items. If the cost of design and engineering can be shared by multiple operators, each can benefit from the financial contributions of others towards the common expense. This can be a particularly effective strategy for items such as buses, bus shelters, bike lockers, fareboxes, and passenger information displays.

In addition to reduced costs, coordinated designs for customer-facing components can also have the co-benefit of promoting increased ridership. For example, a common design for wayfinding, signage, and real-time transit information can reduce barriers to transferring between systems, which increases the viability of transit for more trips. Similarly, a common design for bike lockers allows operators to leverage a common set of marketing and outreach materials to help

customers understand how to use the lockers and allow them to make last-mile connections more easily. Ultimately, incremental passenger ridership generates increased fare revenues and additional bottom line savings.

Taking the joint procurement strategy even further, the Solano County operators benefit from using the California Association for Coordinated Transportation (CalACT) purchasing cooperatives and avoid both design and procurement costs altogether. Specifically, CalACT has undertaken efforts to establish Local Government Purchasing Schedules that can be accessed by any of its members. As explained in CalACT press releases, “these menu-style bids make arrangements with multiple vendors to provide options for goods or service in the future at established prices. Transit agencies realize cost savings because they can select vehicles from a menu of choices from different vendors and manufacturers that best suit their requirements without having to go out to bid.”

CalACT has coordinated the development of the purchasing schedules with FTA procurement guidelines and the program is approved by Caltrans. At the present time, there are two CalACT purchasing schedules, one for bus shelters and the other for accessible transit/paratransit vehicles. The vehicle schedule includes CalACT Class A (E350/GM3500 cutaways), Class B and C (E450/GM4500 Cutaways), Altoona tested CNG and hybrid cutaways and Class D (low-floor minivan) vehicles. The vehicle purchasing schedule also includes the ability to purchase optional vehicle features, spare parts, training materials, and manuals. CalACT reports that solicitations for additional vehicle types including larger buses will be considered in the future as workloads permit.

Beyond the initial savings from avoiding design and bid and proposal costs through joint procurement, additional financial benefits can be realized during the life-cycle of assets and equipment that are purchased under the same technical specification. For example, if multiple operators are using the same vehicle design, they can provide coordinated training activities for their operating and maintenance staff, which could be less expensive than individualized training.<sup>3</sup> Also, operators could benefit from having a common inventory of spare parts as their neighbors. This would be a clear opportunity for lower cost bulk ordering as described above, but it could also facilitate inter-operator loans or transfers of critical parts and equipment that may be needed on short notice.

Finally, operators could also consider joint procurement of technical and professional services that support capital planning. Especially for smaller agencies, staffing capacity may be too limited to evaluate a large number of innovative ideas for improving service. Small expansions in scope (and the associated cost) for technical and planning studies being conducted by peer operators might allow an individual study to have wider applicability elsewhere in the County. To the extent that operators need or want similar types of technical

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<sup>3</sup> CalACT is also under contract to Caltrans to provide services under the Rural Transit Assistance Program (RTAP) in California. Services include organizing driver safety and skills practice, offering workshops and training to both management and line staff, and maintaining a library of resources including training modules, sample policy documents, and other technical assistance.

assistance that they cannot currently afford to pay for on their own, they could pool resources and evaluate more options with the same budget.

For example, SolTrans has recently announced plans to study the feasibility of transitioning its fleet to CNG, and requested financial assistance from STA that would allow the study to be expanded to consider the merits of wider implementation of CNG elsewhere in the County. This particular study is especially compelling as a joint procurement, because converting to CNG can have long term benefits for operating costs. This positive outcome has been experienced in Vacaville following the conversion of their transit fleet to CNG.

### 2.4.3.2 Conclusion and Recommendation

As described above, the transit operators in Solano County have established a successful plan for coordinating to meet the capital needs of the SolanoExpress intercity bus services. The Consortium is an effective forum for information sharing and building partnerships. Given the significant capital costs anticipated in the County over the next ten years, the operators should continue this coordination to ensure that capital needs for local service can be met as well. The advantages of greater cooperation include the possibility of both short-term and long-term cost savings, which could improve overall financial sustainability for transit in Solano County.

It is recommended that the following topics be discussed by the Consortium and considered for inclusion in the annual work plan:

- **Study of Fuel Type Conversion:** As mentioned above, SolTrans is leading a study of the feasibility of transitioning its fleet to CNG. This study scope could easily be expanded to assess the feasibility for other operators in Solano County that have not already made the switch. Leveraging a single study for multiple operators has immediate benefits in terms of saved consulting fees, and can also point the way towards longer term savings.
- **Paratransit Vehicle Replacement Needs:** The Solano county operators should discuss the possibilities for reducing their capital costs for the 36 total mini-vans and cutaways scheduled to be purchased in the next ten years. Many operators currently take advantage of the CalACT purchasing cooperative as mentioned above. CalACT already has a pre-approved price list for multiple types of paratransit vehicles. Given the total number of anticipated acquisitions in relation to the size of the total paratransit fleet, this could be one area in which the existing asset base may not hinder purchasing decisions, and operators may want to consider choosing the same vehicle type as their peers in order to achieve savings on training, spare parts, and shop tools.
- **Fare Collection Technology Needs:** In parallel with the consideration of coordinated fare structures discussed previously, the roll-out of Clipper in Solano County presents an opportunity to review current technology used for fare payment processing. Many customers will continue to rely on

existing fare payment media, but new pricing structures could suggest different requirements for on-board equipment than is currently utilized. Independent of the transition to Clipper, several operators are specifically planning to upgrade and/or standardize the fareboxes in their fleet in the next ten years. The operators should discuss whether there are any opportunities to re-use older equipment or to negotiate lower prices of new equipment ordered in bulk.

- **Schedule Regular Discussion of Procurement Needs:** As a part of the Consortium's annual work plan, schedule a discussion of all operators' planned procurements over the next 18 – 24 months with the intent of identifying opportunities for shared procurements. This annual discussion would provide a forum for the transit operators to discuss specific capital needs and schedules, procurement issues, opportunities for piggybacking on other agencies' procurements, and to share successful procurements. Opportunities identified in this annual process may be placed on future agenda for discussion or follow up with the Consortium or with a subset of the operators who are undertaking common procurements.

### 3 Individual SRTPs

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This chapter contains the individual SRTPs for each of the five transit operators in the county. Each SRTP has been developed in accordance with MTC Resolution 3532 and is a self-contained document that can be “detached” from the larger Coordinated SRTP. Each SRTP has its own table of contents, adoption resolution, section and table/figure numbering, and Title VI documents. The SRTPs are presented in alphabetical order by agency name as follows:

- Dixon Redit-Ride
- Fairfield and Suisun Transit (FAST)
- Rio Vista Delta Breeze (RVDB)
- Solano County Transit (SolTrans)
- Vacaville City Coach (VCC)

## **Appendix A**

### **Transit Sustainability Plan – Financial Conditions Assessment**

## **A1 Transit Sustainability Plan – Financial Conditions Assessment**

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At the June 12, 2013 STA Board meeting, it was recommended that STA receive and file the Solano Transit Sustainability Plan (TSP) Financial Conditions Assessment. It was further requested that the Assessment be included as an appendix to the Solano County Coordinated SRTP. Appendix A contains the Financial Conditions Assessment.