

4. OPERATING PLAN AND STRATEGIES

SJJPA is in the process of a significant optimization and expansion effort of the San Joaquins Service. On May 7, 2018, SJJPA initiated the Morning Express Service (Morning Express) between Sacramento and Fresno, allowing San Joaquins trains to arrive in Sacramento before 8 a.m. The early-morning nature of this service is anticipated to increase ridership by encouraging more business travel (similar to the increases in demand from these markets on the Capitol Corridor and Pacific Surfliner services) and leisure day-trips. To-date, the San Joaquins have missed out on growth related to serving business travel. In the latter part of FY 2018/19, an additional Morning Express train is expected to commence service between the Bay Area and Fresno. Additional details about capital improvements associated with the Morning Express program can be found in Chapter 5.

SJJPA is also pursuing a significant increase in the frequency of the San Joaquins between Sacramento and the San Joaquin Valley. This aggressive program is in response to changing market demand and to capture a larger share of the business and leisure travel market to/from Sacramento. The most immediate priority for expansion of service is the implementation of the 8th and 9th Daily Round-Trips. Details about capital improvements associated with the 8th and 9th Daily Round-Trips can be found in Chapter 5, along with information on the joint SJJPA/San Joaquin Regional Rail Commission (SJRR) 2018 Transit and Intercity Rail Capital Program (TIRCP) grant application, which was successful in funding this expansion of service.

In terms of optimizing operations, the schedule SJJPA developed for the 8th and 9th Daily Round-Trips is based on a bi-hourly pulse system, providing statewide connectivity and consistent service frequency throughout the day. The bi-hourly pattern is augmented with hourly peak-direction frequency to serve Sacramento-bound day-trip passengers. The pulse approach not only allows for improved service, but is also more effective operationally and makes better use of infrastructure investments. The schedule results in a fixed interval between trains, and symmetrical northbound and southbound operations that reduce the number of locations needed for passenger-on-passenger train meets. BNSF simulations show high on-time performance with this schedule.

SJJPA is also continuing to contribute to the ongoing fleet analysis being conducted by Caltrans, which is examining ways to maximize deployment and scheduling efficiencies along the San Joaquins and Capitol Corridors, with the goals of allowing for increased capacity for rail service and more efficient utilization of equipment. SJJPA is also contributing to the Service Optimization Study, which is currently under development by CCJPA. The Study is an effort to identify solutions to optimize ridership and revenue and coordinate service transfers for Northern California's passenger rail system (including the Capitols, San Joaquins, ACE and Caltrain). Components of the Study include: integrated ticketing (now complete); strategies to improve the existing train scheduling and equipment utilization; a mode of access survey; and a reconciliation study between the California Amtrak ridership model and various Metropolitan Transportation Organization (MPO) models. SJJPA will ensure these ongoing studies include analysis regarding the integration of the Morning Express Service and the planned 8th and 9th Daily Round-Trips, as well as additional round-trips in the future.

SJJPA is pursuing partnerships to optimize Thruway Bus and other bus connections to the San Joaquins. The goal of future partnerships is to increase the load factor of buses that serve San Joaquins passengers by developing arrangements that would allow public or private bus operators to provide connecting bus service in lieu of Amtrak's Thruway Buses. These partnerships are anticipated to reduce operating expenses and increase ticket revenue, while complementing local and regional bus services. Details of the first partnership SJJPA is pursuing can be found under "Thruway Bus Operating Strategies" section of this chapter.

To enhance the current service of the San Joaquins, SJJPA is committed to working with CalSTA, Caltrans Division of Rail and Mass Transportation, CCJPA, LOS-SAN, San Joaquin Regional Rail Commission, Amtrak, BNSF, UPRR, and regional and local transit providers to improve connections to local/regional transit service to trains and connecting bus service along the San Joaquins Corridor. To help achieve this, SJJPA will utilize its Member Agencies to assist in coordinating improved communications and connectivity.

FY 2018/19 Operating Plan

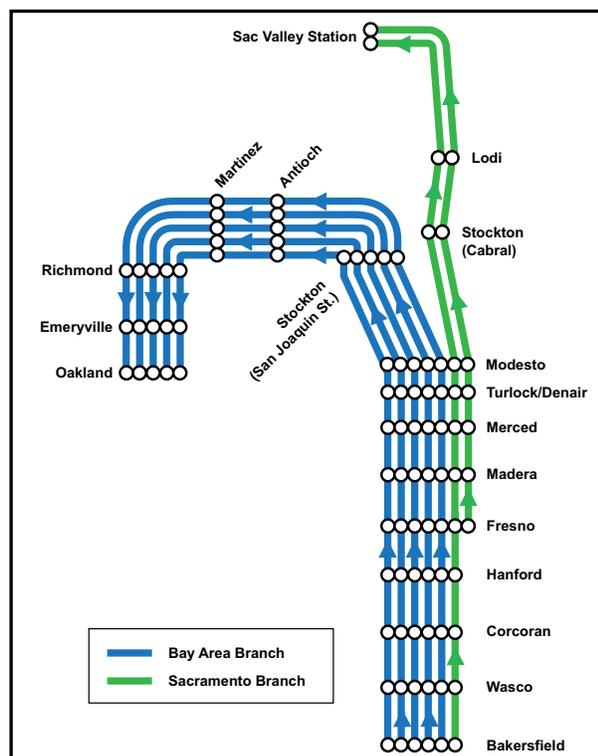
The FY 2018/19 operating plan for San Joaquins includes the first full year of operations of Morning Express between Sacramento and Fresno. While seven daily round-trips will be maintained, the Morning Express train starts at the mid-corridor location of Fresno (formerly departing from Bakersfield). The purpose of starting in Fresno is so trains can arrive in Sacramento before 8 a.m. If the train were to start in Bakersfield, it would need to leave around 2:15 a.m., which is too early to attract sufficient numbers of passengers and would negatively impact the overnight maintenance of the track. SJJPA also plans to initiate a second Morning Express train from Fresno to the Bay Area during the latter part of FY 2018/19.

Service Pattern in FY 2018/19 – Prior to Implementation of Morning Express Service to the Bay Area

Northbound Trains:

- Bakersfield – Sacramento: 1 daily train
- Fresno – Sacramento: 1 daily train (“Morning Express” Train)
- Bakersfield – Oakland: 5 daily trains

Figure 4.1: San Joaquins Northbound Service Pattern (Including Sacramento Morning Express Service)



Source: San Joaquin Joint Powers Authority, 2018

Southbound Trains:

- Sacramento – Bakersfield: 2 daily trains (one will be -the “Morning Express” Return Train)
- Oakland – Bakersfield: 4 daily trains
- Oakland – Fresno: 1 daily train

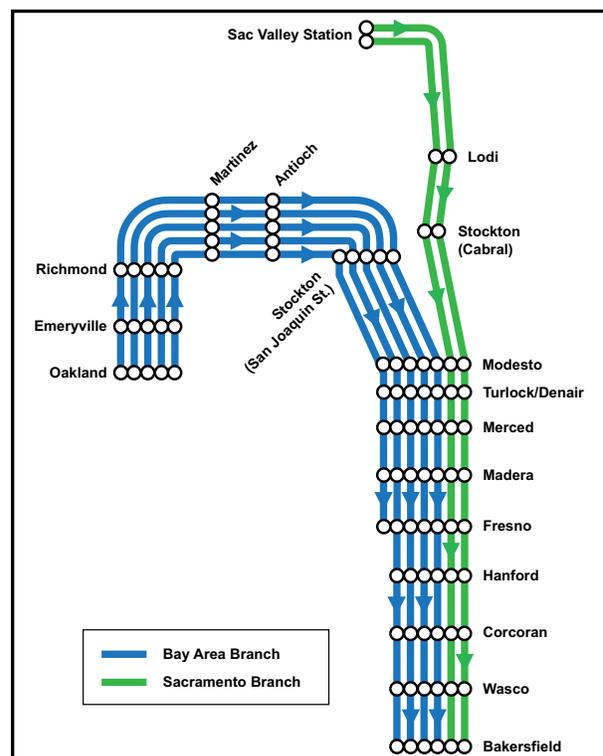
Service Pattern in FY 2018/19 – After Implementation of Morning Express Service to the Bay Area

SJJPA is currently working with UPRR and BNSF to determine the configuration of service following the implementation of a second Morning Express train, which is planned to operate between the Bay Area and Fresno.

FY 2019/20 Operating Plan

For the first eleven months of FY 2019/20, the operating plan will continue the service pattern begun in late FY 2018/19 – seven daily-round trips, with two Morning Express trains starting at mid-corridor in Fresno.

Figure 4.2: San Joaquins Southbound Service Pattern (including Sacramento Morning Express Service)



Source: San Joaquin Joint Powers Authority, 2018

Commencement of the 8th and 9th Daily Round-Trips

Starting in June 2020, SJJPA plans to launch the 8th and 9th Daily Round-Trips. This expansion of service will increase the total number of daily round-trip trains serving Sacramento from two to four (while maintaining five daily round-trips to the Bay Area). One of the round-trips serving the Bay Area will originate/terminate at the Cabral Station rail hub in Stockton and will serve as a connecting train (with a timed transfers) for passengers traveling on San Joaquin Valley - Sacramento trains.

Between Sacramento and Stockton, two of the four daily round-trips will utilize the UPRR Fresno Subdivision (which the San Joaquins currently use for service to the Sacramento Valley Station), while the other two will utilize the UPRR Sacramento Subdivision, a corridor currently not used by passenger rail services. While the Sacramento Subdivision does not connect to the Sacramento Valley Station, it does allow for the San Joaquins to provide service to six planned new stations, including four in Sacramento (Natomas, Old North Sacramento, Midtown, and City College), as well as in Elk Grove and Lodi. A shuttle serving the Natomas Station will also meet each San Joaquins train to provide a convenient connection to the Sacramento International Airport.

Operating Plans Beyond FY 2019/2020

SJJPA long-range operating plans center around seeking capital and operational funding to increase the frequency of San Joaquins trains between Sacramento and Fresno to achieve hourly service, while maintaining adequate service levels to locations south of Fresno and into the Bay Area. With these frequencies, the San Joaquins will be well positioned to provide robust feeder service to future high-speed rail service between Sacramento and Madera, while truly transforming travel options between Sacramento and the San Joaquin Valley. SJJPA is also considering expanding service north of the Sacramento Region.

Rail Operating Strategies

The San Joaquins have great potential for increased ridership, revenue, service coordination, and performance. SJJPA has implemented a number of strategies to improve the San Joaquins. Some of the strategies listed are being pursued with little or no additional resources.

Increasing On Time Performance (OTP)

Staff has worked closely with Amtrak and host railroads to improve OTP, employing collaborative strategies and open channels of communication to resolve issues impacting OTP. This has resulted in significant improvement in OTP between FY 2015 (73.6%) and FY 2016 (84%). Unfortunately, due to a significant amount of weather-related delays, OTP declined to 76.5% in FY 2017 (see Table 4.1). SJJPA understands how critical OTP is for attracting and growing additional ridership markets, including business travel, and is committed to achieving the highest level possible.

Specific strategies for improving OTP include:

Table 4.1: On-Time Performance of the San Joaquins

On-Time Performance of the San Joaquins (Based on Federal Fiscal Year)	
FY 2012	88.1%
FY 2013	77.7%
FY 2014	75.4%
FY 2015	73.6%
FY 2016	84.0%
FY 2017	76.5%

Source: Amtrak, 2017

1. Coordinating with the host railroads and Amtrak to provide computer displays with real-time viewing of all train movement (freight and passenger) on the San Joaquins Corridor.
2. Conducting conference calls with the host railroads and Amtrak to discuss the types of delays, reasons for delays, and identifying potential solutions so future delays can be prevented.
3. Coordinating with the host railroads to bring dispatchers out to tour the San Joaquins Corridor and ride the trains to develop an understanding of the territory being dispatched.
4. Working with the host railroads and Amtrak to identify capital and/or system improvements to improve on-time performance.

5. Working with Host Railroads to develop strategies and incentives that will lead to improved OTP, including providing additional incentive-based access payments between SJJPA and the host railroads similar to what has proven to be extremely successful with the Capitol Corridor over many years.

Reduce Travel Times between the Bay Area and Bakersfield to Under Six Hours

Currently, labor agreements limit the maximum scheduled trip time between two crew change points to six hours. Scheduled trips exceeding six hours from end to end, per current labor agreements, require a planned mid-route crew change. If a train consistently violates the agreement by running longer than six hours without a crew change, then crew penalties are incurred until the train reliably runs under the six-hour threshold.

Today's San Joaquins service between the Oakland Station in the Bay Area and Bakersfield is scheduled to run just over the six-hour threshold. In order to meet labor requirements, a crew change is currently scheduled at Merced. This is a significant expense for the operating budget. Furthermore, the implementation of PTC is estimated to increase the time it takes to swap crews by as much as 15 minutes due to a new set of procedural requirements. The new protocol will add a considerable amount of trip time for passengers. Given the significant cost and schedule implications of continuing to have a crew change in Merced, SJJPA is committed to developing a plan that will eliminate this crew change.

Several strategies to reduce operating times to under six hours between the Bay Area and Bakersfield will be explored during FY 2018/19, including but not limited to the following:

- Identifying potential areas to institute operational efficiencies that would allow for reduced dwell times at several stations;
- Implementing measures that would allow for a reduction in schedule recovery time at strategic locations;
- Skipping a limited number of stations for each train, while ensuring all stations still have sufficient service each day;
- Terminating some trains in Emeryville;
- Having some trains skip Emeryville while continuing to terminate in Oakland;

- Utilizing increased acceleration/deceleration of the new Charger locomotives to reduce trip time; and
- Exploring the feasibility of increased speeds along portions of the corridor.

Other Rail Service Coordination Strategies

- SJJPA will continue to evaluate existing train and connecting bus schedules and determine if there are potential changes which could improve ridership, revenue, and cost effectiveness. Schedule adjustments have the potential to improve the San Joaquins performance without additional resources.
- Assess operational impacts and potential schedule changes from the implementation of planned and potential new stations along the existing San Joaquins Route, including Oakley, Hercules, Berkeley, Oakland Coliseum, and Madera, as well as additional stations in the Fresno and Bakersfield metropolitan areas.
- Explore the feasibility and operational impacts of shifting service from the Stockton "San Joaquin Street" station location to the Cabral (ACE) Station in downtown Stockton.
- Represent the San Joaquins at monthly Capital Improvement Team (CIT) meetings with the Union Pacific Railroad (UPRR). Operational issues encountered over the prior month and any upcoming capital and system projects that could affect train performance are discussed at these meetings.
- Participate in quarterly CIT meetings with the BNSF and UPRR to discuss operational issues encountered over prior months and any upcoming capital and system projects that could affect train performance.
- Work with the Capitol Corridor JPA, LOSSAN JPA, and Caltrans to provide improved connections to the Capitol Corridor and Pacific Surfliner.
- Participate in the Bi-Monthly Construction meetings with LOSSAN and Caltrans to identify potential maintenance projects and projects required to increase service to 9 daily round-trips, as well as to monitor progress on projects in construction.
- Work with the Federal Railroad Administration on regulatory requirements associated with the San Joaquins, i.e. Positive Train Control.

Thruway Bus Operating Strategies

Thruway Bus service is a key component of San Joaquins operations, providing important connections to transit systems and tourist destinations, such as Yosemite, San Francisco, and Southern California. Additionally, many routes operate through rural communities, offering corridor-wide connections to San Joaquins trains. However, Thruway Bus service is currently restricted to ticketed Amtrak train passengers which results in underutilization of bus capacity and high operating costs. Opening key segments of Thruway Bus service to non-rail passengers could reduce operating expenses, increase ticket revenue, increase public and environmental benefits, and complement/augment local and regional bus services.

To accomplish this, SJJPA is currently pursuing partnerships with public and private operators that would allow San Joaquins passengers to utilize intercity bus services of other agencies/companies, while allowing non-Amtrak passengers to utilize the same services. By increasing the load factor on connecting bus services (i.e. the number of seats filled on each bus), SJJPA anticipates a significant reduction in operating expenses and higher ticket revenue.

Partnership with the Shasta Regional Transportation Agency on the “North State Intercity Bus System”

Shasta Regional Transportation Agency (SRTA) is currently planning a new express bus service between Redding and Sacramento as part of the proposed North State Intercity Bus System. To fund the necessary capital investments (including several electric buses), SRTA recently received a TIRCP award. SJJPA and SRTA have formed a partnership to that would allow San Joaquins passengers currently traveling on Amtrak Thruway Buses from Sacramento to Red Bluff or Redding to utilize the new SRTA express bus instead. Correspondingly, SJJPA staff is planning to terminate the Thruway Bus Route 3 in Chico (approximately 75 miles south of the current terminus in Redding) to save on operating costs, which would enable SJJPA to financially support the operations of express bus service. A MOU will be negotiated between the two agencies that would outline the parameters of SJJPA’s financial support, while ensuring San Joaquins passengers have seamless access/ticketing on the new SRTA express bus. The service would provide

much faster travel times between Sacramento and Redding as the new line would run along I-5 corridor rather than the more circuitous SR 99 corridor.

Potential Partnership with Butte County Association of Governments

A similar partnership is being explored with the Butte County Association of Governments (BCAG). BCAG is planning a new commuter bus service between Chico and Sacramento. SJJPA and BCAG are exploring the possibility of BCAG incorporating the remainder of the Thruway Bus Route 3 (from Chico – Stockton) into new bus operations in exchange for operating support. SJJPA would produce the cost savings by eliminating the entire Thruway Bus Route 3.

Potential Partnerships with North Coast Stakeholders to Optimize Thruway Bus and Other Bus Services

Stakeholders in Marin and Sonoma Counties and farther north along the North Coast have expressed a strong interest in optimizing the Thruway Bus service (Route 7) that currently operates between McKinleyville and Martinez. SJJPA has engaged in initial discussions with representatives in various cities, State Senator McGuire’s office, and officials from Sonoma-Marin Area Rail Transit (SMART) on developing strategies for improving utilization of the existing Thruway Bus service and to provide connecting Thruway Bus service to SMART trains. In FY 2018/19, SJJPA will conduct planning work around these issues with the goal of identifying a range of solutions to increase the usefulness of Thruway Bus and other connecting bus services.

Studies of New Proposals

In FY 2016/17 and FY 2017/18, SJJPA received two proposals received from stakeholder groups advocating for service changes to the San Joaquins, which are described below. SJJPA has committed to conducting analysis of these proposals.

Proposed Limited-Stop San Joaquins Rail Service between Sacramento and Bakersfield

A group of stakeholders from Kern County recently approached the SJJPA with a proposal for faster service between Sacramento and Bakersfield by running a morning northbound and evening southbound

express train that would skip seven stations. The proposal would add Morning Express Service direct to Sacramento from the South San Joaquin Valley (currently only served by a Thruway Bus connection in Stockton). The proposal was presented to the SJJPA Board on September 22, 2017. The Board directed staff to study the proposal. In 2018, SJJPA will conduct a detailed analysis of the proposal in coordination with the State and host railroads. Analysis will include ridership forecasts (including potential Thruway Bus connections), operational analysis to verify travel time savings, and the identification of potential operational issues and/or benefits.

Proposed New Thruway Bus Route between Silicon Valley and Southern San Joaquin Valley

Kern COG has requested SJJPA study the possibility of an running an additional Thruway Bus line between Silicon Valley and Southern San Joaquin Valley with the goal of capturing additional ridership markets. SJJPA will conduct detailed analysis regarding the feasibility of this proposal in FY 2018/19. There are many factors that ultimately determine the initiation of new or expanded service, including ridership forecasts and the availability of funding. SJJPA is committed to thoroughly examining the benefits of this proposed new Thruway Bus route before a final determination is made.

Coordination of Operations with Future High-Speed Rail Service

Recognizing the complimentary nature of the San Joaquins and the future high-speed rail system, a Joint Policy Statement was adopted by CHSRA, SJJPA, and Caltrans in 2013 that ensures cooperation and input of local communities on all decisions related to any changes in the San Joaquins and consistent planning between these agencies. As required by the enabling legislation for SJJPA, this Draft 2018 SJJPA Business Plan Update is consistent with the Draft 2018 California State Rail Plan (DCSRP) and the CHSRA's 2018 Business Plan.

With California's phased approach to implementing the State's high-speed rail (HSR) project, conventional rail services are particularly critical to the success of the initial operating segment (IOS) of the proposed HSR system. The San Joaquins (including the Thruway Buses), with its desirable rail connectivity to the

Bay Area, Sacramento, and the northern San Joaquin Valley, provides strong support for the proposed HSR IOS, which would run from San Jose to Bakersfield via Pacheco Pass. With billions of dollars being invested in the California HSR project, the improvement and expansion of the San Joaquins as a feeder network should be a very high priority for SJJPA, California High-Speed Rail Authority (CHSRA), the State, the regions, and the FRA, in consultation with the BNSF and UPRR.

In an attempt to improve the connection between the San Joaquins and the California HSR project, the CHSRA's 2016 Business Plan added a high-speed rail (HSR) station in Madera County. The track alignments for both future HSR service and San Joaquins meet in Madera County, creating the potential for a direct connection between the two services. Currently, there are no other stations in the San Joaquin Valley envisioned to provide such a high-quality connection. SJJPA is currently working with CHSRA, CalSTA, officials from Madera County Transportation Commission, and the City of Madera on plans to develop a location where the San Joaquins and HSR trains could realize a direct transfer. As part of this process, there is an opportunity to move the current Amtrak station to a better location that is more accessible to residents of Madera County, provides more connectivity to transit, more opportunity for transit-oriented development around the station, and aligns better with the planned future growth of Madera County. SJJPA has applied for TIRCP funding for a new/relocated Madera Station.

SJJPA, along with CalSTA, Caltrans, and the Central Valley Rail Working Group worked cooperatively on the CHSRA's "Merced to Sacramento Connected Corridors North Study." The purpose of this study was to identify elements of an integrated investment program that aligns the goals of rail-planning efforts by SJJPA and the region more closely with the phased implementation of the High-Speed Rail (HSR) program. By collaborating to align regional goals, better passenger rail service can be delivered to the Northern San Joaquin Valley Region, from Merced to Sacramento, than would not be possible with uncoordinated efforts. The Study concluded that an incremental and well-coordinated approach to service expansion and capital investment leading to full HSR deployment will allow the region to achieve better, faster, and more-frequent service, sooner than would occur if each agency pursued their interests independently.

The Connected Corridors North Study and CHSRA's coordination with SJJPA resulted in an approach for phased regional investment which is fully consistent with SJJPA's planning for service improvements. This collaborative effort enabled CHSRA to strongly support the joint SJJPA/SJRRRC 2018 TIRCP application for providing additional passenger service to Sacramento which will serve as a complementary "feeder" service to HSR and is an important first step towards bringing direct HSR service to Sacramento.

While coordination work is taking place for a seamless connection of the two systems, to ensure full utilization of the investment in the HSR infrastructure, the Federal Railroad Administration (FRA) required that the first construction section of California HSR project have "independent utility." This means if no additional funding becomes available for a significant period of time, that the construction segment built using

federal grant funds would have an intercity passenger rail operational use. CHSRA has publicly stated, and SJJPA is in agreement, that it is preferable the San Joaquins never has to utilize the first construction section of the HSR system. However, should it become a necessity due to a significant delay of the HSR program, SJJPA will work CHSRA and the State to develop an appropriate contingency plan for interim use of the first construction section by the San Joaquins. SJJPA and the local communities along the corridor believe that any potential interim use of the first construction section must not be to the detriment of continuing service from Madera to Bakersfield along the existing BNSF alignment and continuing through service along the entire existing BNSF alignment.

