

2010 COACHELLA VALLEY RAIL STUDY UPDATE



Prepared in Consultation with

SCS Consulting Services

Riverside County Transportation Commission

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EXECUTIVE SUMMARY

For the last two decades there have been intermittent efforts seeking to link the Coachella Valley to the greater Southern California region with rail services. This report updates the status of these efforts and identifies the key institutional and practical issues required to implement a rail service.

Because of the continuing efforts seeking rail service, there has actually been substantial progress in positioning a potential service for implementation, as summarized below in the Findings Section.

FINDINGS

1. The California Department of Transportation (Caltrans) determined that a rail service linking the Coachella Valley and Los Angeles is feasible.
2. Caltrans included a Coachella Valley rail service in its current State Rail Plan as a state-sponsored rail project, though no funding for that service is proposed.
3. An Amtrak intercity service enjoys legal rights to operate over all freight railroads in the United States, including the Union Pacific Railroad in the Coachella Valley.
4. Land has been acquired at both a prospective east-valley station, in Indio, and a prospective mid-valley station, in Rancho Mirage.
5. An Amtrak west-valley station has been built and is in operation in Palm Springs for the tri-weekly Sunset Limited service between New Orleans and Los Angeles.
6. While no state or Amtrak funding has yet been directed towards the implementation of rail service to the Coachella Valley, some state funds have been directed towards another proposed rail service, similar to that envisioned for the Coachella Valley, as the result of continuing local agency activities in that part of the state.

The cumulative impact of these findings suggest that rail service is a realistic goal and one that can possibly be accelerated with additional and concerted effort by local government within the Coachella Valley.

In addition to the possibility that the state might at some future time make funding available for service initiation, some current efforts in other locations provide the possibility of earlier implementation using private sector funding. On the East Coast, a consortium of casinos in Atlantic City fund a weekend only rail service from New York City to Atlantic City. Closer to

home, business interests are funding and seeking to build a high speed rail line from Victorville to Las Vegas. These interests have already expended many millions of dollars just performing environmental studies.

CONCLUSION

It is not sufficient to determine that a rail service is feasible. The step from that finding to actual implementation requires substantial local government support and continuing legislative effort. In addition, given the current economic environment, it is more important than ever to identify other non-state sources of funding. Furthermore, local agencies must develop and strengthen a partnership with Amtrak, the intercity provider, since Amtrak will ultimately be a principal determinant in bringing this service forward and in negotiating with the freight railroads for its implementation. This may be a long term effort but steps can be taken now to ensure the project's eventual success.

Similar to the efforts of the Coast Rail Coordinating Council, along California's Central Coast, which is advocating for another state-funded line, a Coachella Valley effort will require continuing discussion and promotion among and between all parties within the Valley, including cities/ county, tourism and gaming interests and close coordination with state and federal legislators.

PREFACE

Over the past 19 years, four studies have examined various types of rail service to the Coachella Valley. These studies have examined both intercity service between Los Angeles and communities within the Coachella Valley and commuter service between the Coachella Valley and Riverside. This study seeks to build upon the important findings of the previous studies without replicating each step of analysis from those studies, particularly the ridership evaluation. The primary objective of this study is to identify the type of service most easily implemented as well as those steps required to advance the service. At this point, the key need relates more to an understanding of the institutional requirements for rail service than to an in-depth development of yet another ridership study. A review of previous studies can be found in Appendix A.

Rail Operators

Broadly defined, there are two types of train services in Southern California: commuter and intercity (excluding local rail transit services such as subways and light rail lines). Commuter rail services typically transport local residents to distant employers and operate primarily during key commute hours. Commuter rail services are operated by public transportation agencies and either own their own railroad rights of way or have negotiated access agreements with private freight railroads, such as the Union Pacific Railroad. An example of a commuter rail agency in Southern California is Metrolink.

Intercity rail services typically provide longer distance trips either for business or leisure. These trains are almost exclusively operated by Amtrak, the national passenger corporation, under special legislation approved by the United States Congress. Amtrak enjoys an almost unrestricted right to operate its trains over the tracks of the freight railroads, provided that it is not seeking to operate a service primarily for commuters.

In California, the State Legislature is providing funding to Caltrans to contract with Amtrak to provide intercity services in different corridors around the state. Caltrans does not provide operating support for commuter rail services; only for intercity services.

Tasks to be Discussed in this Rail Update Study

This Rail Update study will focus on seven tasks related to the implementation of new rail service to the Coachella Valley. These tasks are as follows:

1. Description of the Service: Route, Stations, Initial Service Frequency and Potential Schedule
2. Projected Capital Needs: Rolling Stock, Layover Facility, Stations
3. Role of the State in Financing Intercity Rail Services
4. The Relationship of Metrolink Services to State-Funded Intercity Services
5. Implementing State-Funded Intercity Service in California
6. Relationship of Amtrak Sunset Limited to Coachella Valley Corridor Service
7. The Marketing Potential of Coachella Valley Service

TASK 1: DESCRIPTION OF THE SERVICE – ROUTE, STATIONS, INITIAL SERVICE FREQUENCY, AND POTENTIAL SCHEDULE

The Route

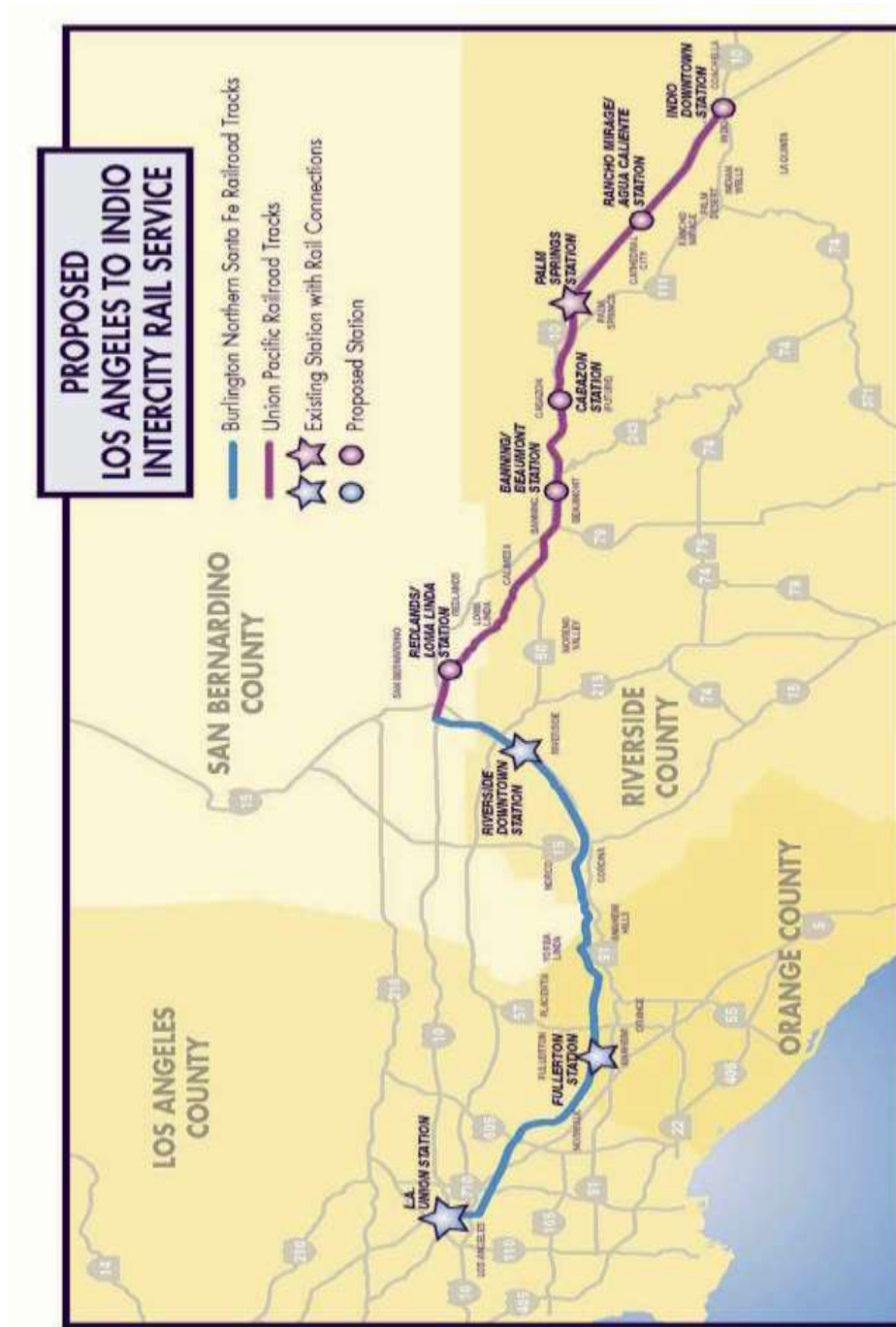
The proposed near term rail service between the Coachella Valley and Los Angeles will be an intercity service provided by Amtrak and covers a distance of approximately 141 miles. The typical trip on such a service would have a minimum trip length of 60-70 miles. Shorter distance trips would be possible but the overall service would not be structured to facilitate such shorter trips nor would the service be oriented to provide daily home-to-work trips, except as an incidental result of the overall service pattern. Some usual trip patterns would be Indio-Riverside (79 miles), Palm Springs-Los Angeles (118 miles), and Rancho Mirage-Fullerton (103 miles).

Since the objective of this intercity service is to facilitate longer distance trips serving the greatest number of people, it is a high priority to select a rail corridor and stations that provide the greatest overall access to the service. It is for this reason that the recommendation for a preferred route to the Coachella Valley has been to use the Burlington Northern Santa Fe (BNSF) tracks from Los Angeles through Fullerton, Corona, and Riverside to Colton on the BNSF San Bernardino Subdivision, thence on the Union Pacific's Yuma Subdivision to the Coachella Valley.

The only rail service currently serving the Coachella Valley is Amtrak's Sunset Limited, a tri-weekly long distance train to New Orleans. There are currently negotiations to make this a daily train service. The Sunset Limited currently uses the Union Pacific Alhambra Subdivision from Los Angeles through Pomona and Ontario to Colton parallel to Interstate 10. At Colton, the Sunset Limited continues east on the Union Pacific Yuma Subdivision. That particular route is a result of the historical establishment of that service on the Southern Pacific Railroad and has not been adjusted to reflect changes in population growth or density.

The current route of the Sunset Limited totally misses the strong Orange County and Riverside market. This omission is somewhat tolerable for a truly long distance train as patrons might travel greater distances to access a service resulting in a trip length of two or even three days. Riders are less willing to drive great distances to access a service resulting in a trip length of only two or three hours. Consequently, it is important that a Coachella Valley service use a route which provides greater penetration into that market area. The BNSF alignment accomplishes that goal in at least two ways. First, the proposed station at Fullerton serves a

centrally located station in northern Orange County. Fullerton is already a major passenger train station with numerous Metrolink and Amtrak trains and would thus provide strong rail links to many other parts of the Metropolitan area. Secondly, routing a new Coachella Valley service through Riverside will provide many transit connections insuring higher ridership. At the Riverside Downtown station, the new train service will connect with the proposed Perris Valley Line, Metrolink’s Inland Empire Orange County Line, Riverside Line, and 91 Line services.



The Stations

The key origins and destinations along this route are the following: Los Angeles, Fullerton, Riverside Downtown, Banning/Beaumont, and three Coachella Valley stations in Palm Springs, Rancho Mirage and Indio. In addition to these stations, additional stations have been suggested at Loma Linda (major medical center and university location) and Cabazon (major gaming and hotel facility). A decision to provide train service to a city is a major decision. Not only do facilities have to be provided at each station – requiring at a minimum, parking, platform, ticketing facilities, and lighting, which are generally paid for by the local jurisdiction – but just stopping the train at a station likely results in an average travel time impact of 5 minutes for the service because of the time involved in train deceleration into the station, holding at the station for unloading and loading, and acceleration back to track speed upon departure from the station. From a planning perspective, the essential stations for the service are the following:

- 1) The three Coachella Valley stations as they provide reasonable access to population centers within the Coachella Valley;
- 2) Banning/Beaumont due to its location midway between the Coachella Valley and Riverside;
- 3) Riverside Downtown because of its role as county seat and an interchange point with three Metrolink commuter routes;
- 4) Fullerton due to its location in Orange County and its role as a major interchange point with both Amtrak trains to southern Orange County and San Diego County and Metrolink trains to other Orange and southern Los Angeles County locations; and
- 5) Los Angeles Union Station because of its local subway, light rail, bus, Amtrak, and Metrolink connections.

Two of the three Coachella Valley stations, in addition to providing an access point to the service for local Coachella Valley residents, are also very well located to serve as destination stations for major local gaming facilities. These gaming facilities could become a marketing focus for the service or an incidental destination depending upon the schedule pattern established for the train service. If the schedule pattern were supportive of day-return visits to local gaming facilities, it may make sense to seek an additional station at Cabazon, adjacent to that important gaming facility.

A station at Loma Linda would link this rail service to a major university and medical center, as well as providing access to residents from that city and nearby Redlands. There appears to be significant community support for a station in this area.

There are strong arguments supporting a rail service serving all stations noted above. None are so close to another (with the exception of Cabazon) that ridership might be diluted at a particular station because of proximity. Cabazon might be dilutive for Banning/Beaumont and should be included only if there is a significant involvement in the promotion of the service by the gaming industry since this station would be viewed primarily as a destination station for gaming patrons from Orange and Los Angeles Counties. The following stations are recommended for inclusion in a Coachella Valley rail service:

<u>Station</u>	<u>Milepost</u>	<u>Miles*</u>
Los Angeles Union Station	0	0
Fullerton	26	26
Riverside Downtown	62	36
Loma Linda	72	10
Banning/Beaumont	92	20
(Cabazon)	104	12
Palm Springs	118	14
Rancho Mirage	129	11
Indio	141	12

*mileage noted is only approximate

Initial Service Frequency

The level of train service bears a direct relationship to ridership – the more of the former, the more of the latter. On the other hand, nowhere in California does train service or any other public transportation service cover all costs. Thus, even though greater train frequencies generate increasingly greater ridership, the net cost of the train service continues to increase. Consequently, the level of train service is frequently driven more by subsidy considerations than ridership generation goals.

Over the years, Amtrak has strongly suggested that the minimum level of train service on a short haul route like Coachella Valley service should consist of two round trips, with a morning train originating at either end point, returning in the later afternoon. If only a single round trip is provided, the typical pattern is from the outlying area to the major urban area each morning, returning in the evening.

In its 2007/08 – 2017/18 California State Rail Plan, “The Department proposes one daily round trip between Los Angeles and Indio. No funding for this service is included in the ten-year

operating plan, as the start date of this route is uncertain at this time.” Thus, Caltrans appears to propose that when it does initiate service, the service will consist of a single round trip.

The pattern of service is a critical decision. Should the single train originate in Los Angeles and return in the evening? This pattern would potentially encourage day/return trips to area gaming facilities. On the other hand, this pattern would require any trip out of the Coachella Valley to spend at least one night out of the Coachella Valley and make impossible any day/return trips to Orange County or Los Angeles. Therefore, the question becomes whether the goal is to facilitate travel by Coachella Valley residents or to facilitate travel to Coachella Valley destinations for daytime activities.

Clearly, the preferable solution is a two-trip scenario with trains originating at either end point and returning late in the afternoon or early evening. Under such a scenario, both objectives – local resident travel and out-of-area visitor travel to local gaming and tourism attractions – can be achieved. Because of the increased cost of operating two daily round trips, this preferred scenario should be hinged upon whether the Coachella Valley gaming facilities choose to join with the Coachella Valley in actively promoting the service. Lacking such an agreement to partner with gaming and tourism interests, the most prudent course of action is the single round trip option, with the train originating in the Coachella Valley each morning and returning in the evening.

Potential Schedule

The train travel times generated for this report are only an estimate of potential train times. Actual schedules will likely vary, and perhaps significantly, based upon negotiations between Amtrak and Caltrans with the host railroads. For example, during peak rush hour periods, it may be difficult to obtain a train slot between Fullerton and Los Angeles because of the many commuter and Amtrak trains operating during that period.

Nevertheless, based upon a review of Amtrak and Metrolink operating schedules between Los Angeles and Fullerton and Riverside as well as Union Pacific Railroad authorized passenger train speeds on the track between Colton and Indio, total estimated travel time between Indio and Los Angeles, with all the stations identified in this review, is approximately 3 hours and 10 minutes, resulting in an average speed of 44.5 miles per hour. While not in the category of high speed rail, this total elapsed average speed is actually quite similar to the current speed of Amtrak’s Pacific Surfliner service between Los Angeles and San Diego, which on some schedules averages 45 miles per hour, including all stops.

Unless special and potentially expensive measures are provided on both the track and locomotive, passenger train speeds are not permitted to exceed 79 miles per hour in the United States. Consequently even one station stop, let alone the seven intermediate stations on this proposed service, will reduce the average train speed assuming five minutes for deceleration, acceleration and dwell time for each station. In addition, there are geometric issues in certain locations such as the relatively steep slope up Banning Pass as well as the slow speed required to transition from the Union Pacific track to the Burlington Northern Santa Fe track at Colton. Therefore, with all factors considered, an average speed of 44.5 miles per hour is the greatest that could be achieved from this railroad infrastructure and is still competitive with other intercity services within California.

In addition, it is not necessarily the absolute speed of the train service but rather its comparison to average highway speeds that will ultimately determine whether the train service is considered useful or not. For example, a single round trip from the Coachella Valley to Los Angeles, returning during evening rush hour, will likely perform substantially better than the parallel highway service, particularly on State Route 91 from Fullerton to Riverside. The following is a hypothetical train schedule between the Coachella Valley and Los Angeles, assuming a morning departure from Indio.

Proposed Coachella Valley Rail Schedule – 1st Round Trip

TO LOS ANGELES	INBOUND	TO INDIO	OUTBOUND
INDIO	7:30 AM	LA UNION STATION	3:45 PM
RANCHO MIRAGE	7:45 AM	FULLERTON	4:25 PM
PALM SPRINGS	7:55 AM	RIVERSIDE - DOWNTOWN	5:15 PM
(CABAZON)	8:10 AM	LOMA LINDA	5:45 PM
BEAUMONT/BANNING	8:20 AM	BEAUMONT/BANNING	6:10 PM
LOMA LINDA	8:45 AM	(CABAZON)	6:20 PM
RIVERSIDE - DOWNTOWN	9:15 AM	PALM SPRINGS	6:35 PM
FULLERTON	10:10 AM	RANCHO MIRAGE	6:50 PM
LA UNION STATION	10:50 AM	INDIO	7:05 PM

Proposed Coachella Valley Rail Schedule – 2nd Round Trip

TO INDIO	INBOUND	TO LOS ANGELES	OUTBOUND
LA UNION STATION	9:20 AM	INDIO	6:30 PM
FULLERTON	9:50 AM	RANCHO MIRAGE	6:50 PM
RIVERSIDE - DOWNTOWN	10:30 AM	PALM SPRINGS	7:05 PM
LOMA LINDA	10:50 AM	(CABAZON)	7:25 PM
BEAUMONT/BANNING	11:15 AM	BEAUMONT/BANNING	7:45 PM
(CABAZON)	11:35 AM	LOMA LINDA	8:10 PM
PALM SPRINGS	11:55 AM	RIVERSIDE - DOWNTOWN	8:30 PM
RANCHO MIRAGE	12:10 PM	FULLERTON	9:10 PM
INDIO	12:30 PM	LA UNION STATION	9:40 PM

TASK 2: PROJECTED CAPITAL NEEDS – ROLLING STOCK, LAYOVER FACILITY, STATIONS

Rolling Stock

The *1999 Coachella Valley Passenger Rail Feasibility Study* contains an extended discussion of passenger equipment required for this service. That discussion examined the capital costs of purchasing new equipment and the leasing costs if equipment were not acquired by the state for this service. Since the service itself, including the purchase or lease of rolling stock, is completely a state responsibility, the discussion in this report will primarily focus on issues other than cost. If local governments were able to assemble funding separate from any state or federal funding, it would be appropriate to conduct a more intensive review of equipment options.

The primary issue is basic equipment availability. Amtrak, the current sole provider of intercity and corridor services in the country, has a very constrained equipment pool. With the current national emphasis on rail transportation, interest in new and additional rail service has been growing. Consequently, until specific fully funded proposals are presented by the state to Amtrak, it is not possible to state with certainty that equipment is in fact available.

Notwithstanding this constrained situation, older equipment – perhaps requiring substantial rehabilitation – is available. As an example, to remedy a shortage of equipment, Metrolink in Southern California recently acquired older, single level commuter cars for its service. As newly constructed double deck commuter cars are received from its supplier, Metrolink will be releasing those older single level cars either into storage or for sale to other operators, including perhaps to the state or Amtrak.

It also is an advantage for the Coachella Valley service that the route commences and terminates at Los Angeles Union Station, since that is the location for a substantial amount of locomotives and passenger cars. From Los Angeles, Amtrak dispatches two daily long distance trains, one tri-weekly long distance train (the Sunset Limited through the Coachella Valley), twelve daily round trips south to San Diego, and five daily round trips north to Santa Barbara and points north. This large equipment pool includes a certain number of spare cars and locomotives to protect the various departures. While spare cars would never be used to provide the basic equipment for a new Coachella service, having access to a larger pool does provide flexibility in the event a car or coach is not available due to equipment problems or malfunctions on a given day.

In addition to Amtrak equipment or renovated older equipment, the state of California does own its own fleet of intercity passenger cars, acquired with 1990's Proposition 116 bond funds. Through ownership, the state is able to negotiate a lower operating cost with Amtrak for service on some of its routes within California. The state is now entering a second procurement to add to that fleet using funds from the 2008 bond issue approved by the voters. While the number of cars to be ordered in this second procurement was likely justified through an analysis of current needs among the three intercity routes in California and not by any speculation on the hypothetical future needs of a Coachella Valley service, still the increased pool of equipment could be a source as well.

Further, since the state of California has been such a strong partner with Amtrak in the development of intercity services, some preference would also likely be given the state in the event of a request for equipment for a new service to the Coachella Valley.

Layover Facility

As with rolling stock, the state would also typically design, fund, and build any required layover facility for this service. A layover facility consists of a track dedicated to the storage, either short term or overnight, of a train. The layover facility would contain a storage shed with repair and cleaning supplies, a drip pan to collect oil drippings from the locomotive, exterior lighting, sewer connections to dump toilets, water connections to fill water tanks, and a paved area adjacent to the tracks for workmen and their vehicles and be surrounded by a security fence. The layover facility track must be located off the main line of the host railroad. More than likely the Layover track would be connected to the main line via a power switch and signal and would be under the control of the host railroad dispatcher.

No matter which option is chosen – originating the train in Los Angeles and returning it in the evening or originating the train in Indio and returning it to Indio at night for layover – a storage track will be required. Assuming that the passenger boarding platform is on the main line at Indio, it will be important to vacate the main line as soon as possible so that freight traffic on that track can resume. The layover track should be located immediately east of the passenger boarding platform.

Stations



Including all potential station locations between Indio and Los Angeles, there are nine potential passenger train stations on the route of the Coachella Valley rail service. Of these nine stations, four are fully improved and in service: Los Angeles Union Station, Fullerton, Riverside Downtown, and Palm Springs. The remaining five potential stations will require some level of local agency or private sector funding.

Perhaps the most important issue regarding stations is to define what is meant by a station. A station is a location where a train stops to load or unload passengers. During the heyday of passenger trains in this country, a train station typically consisted of a climate controlled building with a ticket agent and waiting area, as well as other ancillary facilities depending upon the volume of passenger traffic. As intercity rail service declined in the United States, more and more of the staffed stations were eliminated. This trend has continued with the establishment of Amtrak in 1971. Metrolink does not provide ticket agents at any station except for Los Angeles Union Station. It sells its tickets at all of its stations through ticket vending machines.

Consequently, the definition of a station today refers to a precisely engineered passenger boarding platform adjacent to the tracks with parking and lighting. Other amenities can be added at the discretion of the local jurisdiction. A building with services or ticket agents is not typical.

At its legacy stations, Amtrak still provides waiting areas, restrooms, and ticket agents. For example, on the Los Angeles-San Diego Pacific Surfliner service, staffed stations include Los Angeles Union Station, Fullerton, Anaheim Stadium, Santa Ana, Irvine, San Juan Capistrano, Oceanside, Solano Beach, and San Diego. However, on Amtrak's newer route from Los Angeles to Santa Barbara, several stations have no available buildings or ticket agents, including Glendale, Chatsworth, Simi Valley, Ventura, Carpinteria, and Goleta.

In the Coachella Valley, the Palm Springs station consists of a shelter to shield passengers from the sun and rain, a long platform to board the train, passenger vehicle and charter bus parking, and lighting.

For the purposes of this analysis, it is assumed that all stations yet to be built between Indio and Riverside will be built to these minimum standards as a means of lowering capital and operating costs for the service.

In general, a station is considered the obligation of the local agency and there is no certainty that any state funds would be available for the construction of a passenger train station.

In the Coachella Valley, there is another significant concern regarding stations. While open air stations with ticketing machines and passenger waiting amenities might be adequate in other locations, the severe summer conditions in the Coachella Valley make it questionable whether a rail service would achieve its expected ridership levels without climate-controlled facilities. The middle and upper class traveling public would likely not use a service without protection from the severe temperatures.

This would become an even more significant issue if the local gaming facilities were to participate in the promotion of this service. Gaming patrons, many elderly, would likely not find waiting in the outdoor environment pleasant. Therefore, it may be that a decision to go forward with the train service, especially if it included active promotion of tourism and gaming destinations, would have to include consideration of providing comfortable, climate-controlled facilities at, perhaps, a single station within the Coachella Valley, with full station amenities, including ticket agents. This improved station concept is not required by the state for this service; it would be primarily dictated by the local environmental conditions.

Finally, the host freight railroad may insist that a new station include a pedestrian, grade-separated facility to cross from one side of the tracks to the other in order to minimize the risk to train passengers and thus the potential for increased liability to the railroad.

Status of Stations

The following stations along the route do not require improvements: Los Angeles Union Station, Fullerton and Riverside. Each of the remaining stations have either not been built or require some improvement.

- **Loma Linda:** The city of Loma Linda has contacted Amtrak expressing its interest in a station within its community.
- **Banning/Beaumont:** There is no station within these communities. In the past both communities have expressed interest in rail service.

- **Cabazon:** The railroad alignment lies very close to the gaming facility in Cabazon, within shuttle distance. There is no station at this location at present.
- **Palm Springs:** While Palm Springs does have a station at which Amtrak's Sunset Limited now stops tri-weekly, it does not have a fully enclosed waiting area and is consequently not climate controlled.
- **Rancho Mirage / Palm Desert:** The Coachella Valley presently owns land for a transportation center near Ramon Road. If a station was constructed here, it would be immediately adjacent to the Agua Caliente Hotel and Casino property.
- **Indio:** The city of Indio has acquired land sufficient for a station near the location of the former train station. It would also appear sufficient, subject to further engineering analysis, for a train layover facility. This station is also located near to other major gaming facilities within the Coachella Valley.

It is not necessary that all proposed station locations be constructed prior to the start-up of service. The principal requirement to initiate service would be the three stations in the Coachella Valley. The other stations between the Coachella Valley and Riverside will be very useful additions but not critical to the start-up ridership. The only caveat to this assessment is that if the gaming community chooses to encourage this service, the addition of the Cabazon station would be very helpful.

As to whether all Coachella Valley stations require improvement for customer comfort, those communities that elect to provide such improvements will likely attract a greater proportion of Coachella Valley ridership. Furthermore, Amtrak itself may reevaluate the preferred station stop for its Sunset Limited if improved facilities were available.

TASK 3: ROLE OF THE STATE IN FINANCING INTERCITY RAIL SERVICES

Intercity rail services constitute those train trips that typically exceed 60-70 miles. Prior to 1970, all intercity rail passenger services were provided by private freight railroads. Federal legislation was passed by Congress in 1970 relieving the private freight railroads from their former obligation to operate passenger trains and granting the corresponding right to operate those same or new trains to the newly federally chartered National Railroad Passenger Corporation (Amtrak). With the startup of Amtrak in May of 1971, some of the intercity routes in the country were picked up by Amtrak while the rest were discontinued. Amtrak today operates a substantial amount of relatively short distance intercity service between Washington, D.C. and Boston, as well as many long distance intercity service requiring trip journeys of two and three days to complete.

Amtrak's core service, as outlined above, is funded through federal appropriations and passenger fares. In addition to this core long distance and Northeast Corridor service, Amtrak also operates several short distance routes under contract with different states. These services are primarily funded by the individual states, under unique contracts negotiated with each state.

California began contracting with Amtrak in the 1970's. Over the years, the state has created an extensive network of rail lines and connecting feeder bus services that connect virtually all major population centers. Three separate rail routes are currently funded by the state and operated by Amtrak.

Pacific Surfliner

This route operates between San Diego and San Luis Obispo, serving stations in coastal San Diego County, central Orange County, central Los Angeles County (including downtown Los Angeles), coastal Ventura and Santa Barbara Counties and coastal San Luis Obispo County. Eleven round trips operate between San Diego and Los Angeles, five continue beyond Los Angeles to Santa Barbara and two continue on from Santa Barbara to San Luis Obispo.

San Joaquin

This route operates from Bakersfield to Oakland, serving Hanford, Fresno, Merced, Stockton, Martinez, and several Bay Area communities. Some trains diverge from this core route at Stockton to serve Sacramento. Of six total round trips, four operate between Bakersfield and Oakland, while two operate between Bakersfield and Sacramento.

Capitol Corridor

This route operates from San Jose through Oakland to Sacramento and Auburn. Seven round trips operate from San Jose through to Oakland and continuing to Sacramento; sixteen total round trips operate from Oakland to Sacramento, while one round trip (primarily for commuters) operates from Sacramento to Auburn.



Role of State Financing

As previously noted, Amtrak enjoys special rights bestowed upon it under the 1970 legislation that authorized the freight railroads to terminate their passenger services. These rights permit Amtrak, with certain obligations of its own, to operate intercity passenger rail service beyond its long distance services if requested to do so by other local or state government agencies. These rights give Amtrak special standing with the freight carriers who cannot deny Amtrak the right to operate new intercity services; the freight carriers can only negotiate additional investments in their rail line if they can substantiate the need for special capital improvements resulting from the proposed intercity service.

Each of the three currently state-funded intercity services has a unique cost structure. Therefore, it is not possible to assume a standard fixed cost per mile and then multiply by the proposed train miles for each service. Some of the services are able to attain greater crew efficiencies by operating several round trips with a single crew; some have lower equipment costs since the equipment is provided by the state instead of leased from Amtrak. Some of the services have extensive bus connections that add not only passengers but costs to the basic rail cost.

These differential costs can be substantial. In FY 2007/08, the Capitol Corridor service had an average cost per train of \$1.3 million, while the Pacific Surfliner's average cost per train was \$2.02 million. The San Joaquin, on the other hand, had an average cost per train of \$3.15 million. Each of the three services also had differential revenue performance as well. The Capitol Corridor generated \$15.79 million for a farebox recovery rate of 41.7%; the Pacific Surfliner service took in \$30.88 million and achieved a farebox recovery rate of 58.5%; the San Joaquin service earned \$18.69 million and had a farebox recovery rate of 43.6%.

The key lesson to be learned from the existing services is that even a solidly producing train service is likely under the best of circumstances to yield around 40% in terms of farebox recovery. In the initial years of the new service, the revenue-cost ratio will likely even be less. The Coachella Valley service is unlikely to generate the patronage and revenue seen on the San Diego-Los Angeles Pacific Surfliners nor the great ridership on the commute-oriented Capitol Corridor trains.

As part of this review of the proposed rail service to the Coachella Valley, Amtrak has prepared a pro forma budget for the new service. The Amtrak cost estimate would form the basis for any eventual agreement between the state of California and Amtrak to operate the proposed Coachella Valley rail service. A brief financial analysis with initial cost estimates from Amtrak is provided in Appendix B.

TASK 4: THE RELATIONSHIP OF METROLINK SERVICES TO STATE-FUNDED INTERCITY SERVICES

In Southern California, there are multiple types of rail service. There are light rail lines in San Diego and Los Angeles counties such as the San Diego Trolley or the Gold or Blue Line; heavy rail lines in Los Angeles such as the Red Line subway; commuter rail services throughout the Southern California region such as Metrolink and Coaster; and Amtrak intercity services throughout not only Southern California but also short and long distance Amtrak intercity services. Unsurprisingly, the general public frequently is confused about the correct description of the service under discussion. Knowing which service is being sought is important in order to establish technical feasibility, cost, and probability of implementation. In other words, a train means different things in different applications.

Generally speaking, light rail and heavy rail refers to urban rail systems with trip lengths often ranging only between 1 and 10 miles and having station locations as close as ½ mile apart. Such systems typically operate all day long at very short headways, often as close as 5-7 minutes between trains. These systems are generally integrated with a robust local bus system and in fact have typically evolved from highly patronized bus routes. Thus light and heavy rail systems can best be described as fixed guideway public transit lines. They can operate at grade on streets (light rail) or in tunnels like the Red Line Subway (heavy rail). This is not what is being proposed in the Coachella Valley.

Commuter Rail Services

On the other hand, commuter rail and intercity rail services have many similarities. In Southern California, both types of services operate with diesel powered locomotives on railroad tracks that most often also carry freight trains. Both commuter and intercity services have both single level and double-deck passenger coaches. However, there are differences, both in function, legal status, and governance.

Commuter services operate primarily to connect residents with their place of employment, the so-called home-to-work trip. The average trip length for most commuters on these services is 35-40 miles, with individual commuter rail lines often extending 60-90 miles from end-to-end. Because of the major investment required in stations, equipment, and staffing, most commuter rail services take advantage of this investment to operate trains at times outside of commuter hours. Because these commuter rail services operate throughout a region at times outside of the peak morning and afternoon commute periods, such services are also sometimes referred

to as regional rail services. It is because these regional rail services, like Metrolink, operate for long distances at all times of the day that they are frequently confused with intercity services. Notwithstanding this operating pattern, in the case of Metrolink about 85% of the system's ridership occurs in the morning and afternoon rush hours.

Another distinguishing feature of commuter services is that ticketing is geared to facilitate daily ridership, i.e. 10-ride and monthly tickets. However, there is another more important feature distinguishing commuter trains from today's Amtrak intercity trains: commuter trains are owned and operated by local agencies. In Southern California, Metrolink is owned by the regional transportation agencies of the five counties comprising the core Metrolink service area. These agencies are the Los Angeles County Metropolitan Transportation Authority, Orange County Transportation Authority, Riverside County Transportation Commission, San Bernardino Associated Governments, and Ventura County Transportation Commission.

While there are many other differences that could be highlighted between commuter and intercity services, the most relevant to this discussion is the following: commuter rail services such as Metrolink can operate its trains on rail lines that it owns but can only operate trains on lines owned by freight railroads with the agreement of the freight railroad involved. In the case of Metrolink, the agencies involved own the lines between Los Angeles and San Bernardino; between Los Angeles and Lancaster; between Los Angeles and Moorpark; and between Fullerton and San Diego. Metrolink does not own the line between Riverside and Los Angeles via Ontario, nor does it own the line from Riverside to Los Angeles via Fullerton, or the line from Moorpark to Montalvo in Ventura County. In those cases, Metrolink reached an agreement specifying how many commuter trains could operate on those lines and at what fee to the owning railroad. Past agreements have frequently involved not only a substantial upfront payment reflecting the use of a multi-million dollar investment made over many years by the freight railroads but also ongoing usage fees to reflect costs associated with the actual use of the rail line.

The agencies constituting Metrolink negotiated the purchase of the lines that they now own as well as the right of access to the non-owned lines. The freight railroads were not required to negotiate nor were they required to reach an agreement if they did negotiate. Specifically, commuter rail agencies in the United States and California do not enjoy any right of access to freight rail lines. If the freight railroads determined that the purchase package offered to them was not attractive, they could have refused the development of commuter rail services and the public agencies would not have had any recourse.

Intercity Rail Services

The modern era of intercity rail service began in May of 1971. This is when the new government corporation of Amtrak began operating its first trains. Under legislation approved in 1970, all railroads that agreed to participate in the new intercity passenger system could transfer over to Amtrak the authority to operate passenger trains on the tracks of the freight railroads. The freight railroads were very careful to distinguish this right to operate intercity passenger trains on freight lines from the interest on the part of local public agencies to operate commuter trains.

Thus, intercity train services are designed to operate trip lengths substantially longer than a typical commuter train. Consequently, trip lengths exceed those observed on Metrolink, which averages between 35-40 miles per passenger trip. In California, the three short distance intercity passenger routes average trip length include – Amtrak’s Pacific Surfliner between San Diego and San Luis Obispo is 82 miles, Amtrak’s San Joaquin between Bakersfield and Oakland/Sacramento is 140 miles, and Amtrak’s Capitol Corridor between Sacramento and San Jose is 63 miles.

On commuter trains, the peak ridership days are all on weekdays since those trains are designed to serve the home-to-work trip. On intercity trips, there is a pronounced shift to weekends. The Friday-Sunday period receives a higher percentage of total weekday trips than the remaining four days of the week since the intercity trip often has to do with leisure and personal travel.

There are other distinctions as well. A commuter train schedule will typically show a robust pattern of train departures towards work in the morning and towards home in the evening with a smattering of trains throughout the rest of the day. In contrast, an intercity train schedule would most likely show a balanced pattern of trains throughout the day, giving no particular preference to work schedules in the development of the train schedules. For the freight carrier, a commuter train operation presents special challenges as commuter trains can operate as frequently as twenty minutes apart during the rush hour, making it a challenge to squeeze in a freight train moving in the same direction.

On the other hand, an intercity passenger service, whether short or long haul, can more easily be integrated into the flow of traffic. With the exception of differential train speeds between passenger and freight trains, it is theoretically easier to operate intercity passenger trains among and between freight trains than it is to operate a dense level of commuter trains.

This is why when commuter rail agreements with freight railroads are secured they most typically include substantial capital improvements to add track and signals to better manage the expanded flow of traffic on the railroad.

In the legislation approved by Congress in 1970, Amtrak is only obligated to provide additional capital improvements for the freight carriers when it can be demonstrated that the proposed new passenger service will require incremental improvements, lacking which the freight carriers would experience a measurable decline in service quality.

For the purposes of this review, the single most important difference between commuter rail services and Amtrak intercity rail services is that Amtrak has a right, guaranteed under federal law, to operate intercity trains on virtually any freight line in the United States. Metrolink has no such right.

Amtrak and Metrolink to the Coachella Valley

Since Metrolink has a major station in downtown Riverside, it may appear to the casual observer that it would be a relatively simple matter to extend service to the Coachella Valley. Notwithstanding the important fact that there is likely a very modest home-to-work link between the Coachella Valley and Los Angeles, if Union Pacific Railroad, as the host railroad, did not agree with such a service proposal it would not be possible to implement it. Even if the host railroad would agree, it would undoubtedly require an investment on the part of local public agencies on a scale similar to the investment required upon the initial establishment of Metrolink. Union Pacific Railroad would undoubtedly require a fee just for the right of access, recognizing its substantial historic investment in the line.

On the other hand, for intercity service, all the issues related to prior investments in the line were resolved through negotiations between the federal government and the railroads at the creation of Amtrak. The freight railroads were relieved of their prior obligation to provide common carrier passenger service in exchange for allowing a government-funded corporation to assume those obligations and potential financial liabilities. Consequently, Amtrak could operate an intercity passenger service between the Coachella Valley and Los Angeles, notwithstanding whether the involved railroads wanted to see such service or not. The freight carriers could attempt to make a technical case that a particular train or series of trains would harm its freight service and thus require mitigation. There is a process in place to resolve those issues. In the end, intercity passenger service could be provided by Amtrak even against the preference of the freight carrier, provided that any required capital improvements were provided by Amtrak or its funding partner .

TASK 5: IMPLEMENTING STATE-FUNDED INTERCITY SERVICE IN CALIFORNIA

For most of the country, there are two types of Amtrak services. Perhaps the most visible services are the long distance intercity services. These trains typically involve overnight travel and operate over distances generally exceeding a thousand miles or more. Examples of such trains operating in California are the Sunset Limited from Los Angeles to San Antonio and New Orleans; the Southwest Chief operating from Los Angeles to Barstow, Albuquerque, and Chicago; and the Coast Starlight operating from Los Angeles to the Bay Area and Seattle. These long distance trains operate through multiple states and are 100% funded by Amtrak through a combination of passenger fares and federal funding.

The second type of service is the short distance or regional service. In California, there are three examples of such services. The first example of a short haul service is in Southern California. Historically, the Atchison, Topeka and Santa Fe operated the San Diegan trains between San Diego and Los Angeles that Amtrak agreed to keep in service when it assumed responsibility for passenger service in 1971. In the beginning, those trains were funded 100% by Amtrak. When California became interested in expanding that service, Congress passed legislation permitting co-funding of new service by the state and Amtrak. Eventually, the state became the primary funding source although Amtrak still provides a portion of the subsidy to operate these trains, referred to as the Pacific Surfliner service. This service has always received strong legislative and state institutional support. Its key feature is that it was a pre-existing route that was expanded by the state.

When Amtrak assumed responsibility for nationwide rail services in 1971, two of the routes that it declined to assume were short distance routes between Oakland and Bakersfield and between Oakland and Sacramento. A few years after the establishment of Amtrak, prominent congressional leaders led an effort to add service between Oakland and Bakersfield, now referred to as the San Joaquin service. With the success of that single round trip service, the state pressed Amtrak to add more through the cost-sharing program established by Congress. While there was and is strong community support for this service, the initial impetus for service establishment came from Congress and for service expansion from Caltrans.

The third short distance corridor is the San Jose-Oakland-Sacramento service referred to as the Capitol Corridor. The Southern Pacific Railroad had operated passenger trains on the Oakland-Sacramento portion of the corridor prior to Amtrak but that service ceased with the

establishment of Amtrak. Of the three state-funded corridors within the state, this corridor is the best example of a short distance service requested by local governments and implemented several years after the establishment of Amtrak. Leadership for the reestablishment of the service came from a prominent state legislator who established a strong coalition of regional governments between Sacramento and the Bay Area. The coalition became so strongly dedicated to the importance of this corridor that they established a formal Joint Powers Authority and sought state legislation authorizing the JPA to oversee and administer the service on the corridor, using state funding. This Capitol Corridor JPA oversees the Amtrak contract on the route. Caltrans oversees the Amtrak contracts on the other two short distance services within the state.

A fourth rail corridor in the state is currently under consideration. As with the Capitol Corridor, this is a corridor requested by local governments. These coastal California counties are seeking a daily service operating between Los Angeles, Santa Barbara, San Luis Obispo, Salinas, San Jose, and downtown San Francisco. Currently, there is an existing single round trip operating the entire distance between Los Angeles and San Jose, continuing on to Oakland, Portland, and Seattle. This is a long distance train, Amtrak's Coast Starlight, and it is funded 100% by Amtrak. The coastal counties desire a second train on the route and service directly serving downtown San Francisco. The long distance train between Seattle and Los Angeles can be affected frequently by extreme weather in the winter as it travels through mountainous Oregon and can be consequently somewhat unreliable in serving the California coastal counties. The second train on this much shorter would not be funded by Amtrak.

The strong, continuing impetus for this new "Coast Daylight" train comes from the organization created by the online communities to promote it and seek state funding. These communities have created a planning coalition called the Coast Rail Coordinating Council (CRCC) consisting of a technical committee of agencies' staff and a policy committee consisting of elected officials from the county agencies. The key active counties involved in this effort are Ventura, Santa Barbara, San Luis Obispo, and Monterey. The CRCC has achieved several important milestones: the planned service is recognized in the 2007/08 – 2017/18 California State Rail Plan; total current and future capital needs of \$590.2 million are identified in the State Rail Plan; \$25 million has been allocated under Proposition 1B for track work along the coast and \$18 million in the 2008 State Transportation Improvement Plan. Two of the online regional governments have each allocated \$500,000 to support important engineering services leading to the implementation of the service. In discussions with the CRCC, Amtrak has indicated its willingness to provide equipment for the startup of service. These are significant positive achievements.

While Caltrans attends CRCC meetings, the principal continuing leadership for the service initiation comes from one of the member agencies, the San Luis Obispo Council of Governments (SLOCOG). SLOCOG designated one of its professional employees to provide ongoing support for the CRCC. This individual estimates that he spends approximately 1/5 of his total time on this project. The additional minor expenditures required to support the CRCC are also provided by SLOCOG.

The Los Angeles to Indio service is also included in the 2007/08 – 2017/18 California State Rail Plan. Caltrans is proposing to initiate service with a single round trip, but as noted in the Plan, “No funding for this service is included in the ten-year operating plan, as the start date of this route is uncertain at this time (State Rail Plan, page 172).” In a version of the State Rail Plan published several years ago, Caltrans had identified a target year for implementation but strong opposition from the railroad and the lack of any sponsoring legislation led Caltrans to place this service expansion proposal in a holding pattern pending the resolution of issues with the railroad and the identification of state funding to construct any required improvements and provide operating support.

It would appear that a public-agency-based organization will be required to generate the actions required at the state level to implement this service. While the state supports this service, based on its inclusion in the State Rail Plan, funding for the service must be obtained through the state budget process. It is not an automatic process. Further, in order to seek approval to operate the service from the railroad, there will have to be a strong expression of local interest in the service sufficient to encourage both the state and Amtrak to engage in specific discussions with the railroad on the issues the railroad contends make such service difficult for them. As noted earlier in this report, Amtrak does enjoy specific rights to operate passenger trains on freight lines. These rights can be constrained by specific situations and Amtrak might be compelled to arrange for funding of certain capital improvements to resolve freight congestion issues. Yet, in the end, should Amtrak determine that the operation of such passenger service is in its own interest, it does have the legal capability of compelling the host freight railroad to permit access to its tracks. If capital improvements are required, Caltrans could provide those funds to enable this service to commence.

TASK 6: RELATIONSHIP OF AMTRAK SUNSET LIMITED TO COACHELLA VALLEY CORRIDOR SERVICE

Currently, Amtrak’s long distance train between Los Angeles and New Orleans, the Sunset Limited, passes through the Coachella Valley three times per week in each direction. Eastbound, it arrives at the Palm Springs station from Los Angeles at 5:06 p.m. on Sunday,

Wednesday, and Friday. Westbound, it arrives at the Palm Springs station from New Orleans, Houston, San Antonio, Tucson, and Yuma at 6:37 a.m. on Sunday, Wednesday, and Friday.

Since this train primarily serves large markets located substantial distances from one another, it may not be possible to provide a schedule that accommodates shorter distance travel within that long distance route. As it turns out, the current schedule, albeit only operating three days a week, does provide a surprisingly attractive schedule from the Coachella Valley into Los Angeles.

It departs early in the morning and departs from Los Angeles at 2:30 p.m. for a 5:06 p.m. arrival. Notwithstanding, these very attractive times in the Coachella Valley, the reality is that a long distance train can face many obstacles in its journey from one end point to the other, including freight train congestion and other operating issues which may cause the train to lose time. Consequently, the train can be late.

Another issue may soon present itself. Amtrak has long recognized the inherent liabilities of trying to operate a tri-weekly service and has investigated ways to use the same amount of equipment from this and another connecting route in San Antonio to improve the service to daily service. Amtrak now believes it has identified a feasible solution that it is actively exploring to implement. In rough terms the new plan is to operate the Sunset Limited from Los Angeles to San Antonio (per the current route). From San Antonio, the train would follow the route of and incorporate the Texas Eagle service to Chicago into the Sunset Limited. Amtrak would provide a separate connecting coach train from San Antonio to New Orleans to replicate the former service to New Orleans by the Sunset Limited.

These changes can all be accomplished within the limitations of the existing equipment pool and, in fact, result in 10 pieces of equipment that would be surplus to the current needs of the Sunset Limited (Los Angeles – San Antonio- New Orleans) and the Texas Eagle (Chicago – San Antonio).

What does this mean for the Coachella Valley? Because of the new service configuration, the current train schedule of the Sunset Limited would be changed to reflect a very late evening departure from Los Angeles eastbound (approximately 11:30 p.m.) and a very early westbound arrival into Los Angeles (approximately 4:30 a.m.). Both the eastbound and the westbound Sunset Limited would now travel through the Coachella Valley with a stop at the Palm Springs station around 2:00 a.m.

Amtrak has determined that the overall benefits of daily service on the Sunset Limited and greater equipment utilization for its national fleet outweigh a more difficult schedule pattern for one of its on-route cities (Palm Springs).

What may soon happen to the scheduling of the Sunset Limited through the Coachella Valley – while overall very beneficial to the financial performance of that train – is an excellent example of why a long distance train cannot be a substitute for short haul intercity service. As noted above, while the local route may remain the same (Palm Springs to Los Angeles) the schedule may change radically to meet other more pressing needs of the overall train service.

On the other hand, a short haul intercity service can be tailored to the needs of the local area. If a principal travel purpose is business travel from the Coachella Valley to Los Angeles and Orange County, then a schedule can be prepared reflecting an early morning train into the larger metropolitan area. If the principal desire is to bring tourists and vacationers to the Valley, one would be sure to provide schedules which accommodate those needs. Taking it a step further, if Coachella Valley residents and businesses wished to encourage day-return visits to the many entertainment, recreation and gaming facilities, then it would be important to have late morning/early afternoon train arrivals and a mid-evening departure.

As noted earlier, only long distance and certain services on the East Coast are funded 100% by Amtrak. In California, short haul intercity services—depending upon their date of establishment—are funded primarily by the state of California. A Coachella Valley intercity service would also receive its primary funding from the state, although other non-Amtrak funding could also be used if it were available.

TASK 7: THE MARKETING POTENTIAL OF A COACHELLA VALLEY SERVICE

It is significant that the proposed Los Angeles-Indio Coachella Valley Rail Service is included in the State Rail Plan. Other suggested rail routes are discussed but not yet formally included. In a prior State Rail Plan, funds were actually identified in a target year for implementation of the Coachella Rail Service. As noted earlier in this report, because of opposition from the freight railroad operator – Union Pacific Railroad – the service implementation plan was put on hold. Since that decision on the part of Caltrans, other related issues have also been identified as potential obstacles: funding and equipment. Notwithstanding all these issues, as noted in this report, Caltrans, through its partnership with Amtrak, does have the remedy of federal law to compel the Union Pacific Railroad to meet and discuss under what conditions additional passenger service can operate on this line. Union Pacific Railroad can seek capital

improvements from Amtrak or its partner, the state, if it can justify the need based upon a sound scientific analysis. However, it cannot simply deny the service.

Since this service is included in the State Rail Plan, the most important question has already been asked and answered: Is this service feasible? It is not a question of feasibility that has held up implementation of this service; it is just initially the opposition of the freight railroad and subsequently the lack of a funding source at the state level given the current economic issues.

The Coachella Valley itself is a significant tourist destination. Many Southern Californians and residents from other states have second homes in this area. Major tennis, golfing, cinematic and musical events are held annually in the area. There are also major gaming facilities that attract visitors from outside the immediate region. These industries could be the catalyst for an earlier implementation of this service than might otherwise be expected.

Why is this? Two examples of proposed and ongoing rail service directly relate to the desire to serve the gaming and tourist industry. The proposed rail service is the Victorville – Las Vegas service being advanced by private business interests and the ongoing rail service is a special express train operated from New York to Atlantic City by New Jersey Transit.

The Victorville – Las Vegas rail service is referred to as the DesertXpress. This is a \$4 billion dollar project to build a train line adjacent to the Interstate 15. Trains would operate at speeds up to 150 miles per hour on the 180 mile trip from Victorville to Las Vegas. A substantial amount of private funding has already been spent on this project for environmental clearance and application has been made for some federal funding to match private sector funding. It is not clear whether this project will receive any federal funds or whether it will receive sufficient private equity funding to complete the project. The significant feature of this project as it relates to a discussion of rail service to the Coachella Valley is that the DesertXpress represents a very significant investment from free enterprise businessmen (\$25 million expended already for environmental documentation) to capture some of the travel market to Las Vegas.

A rail service to the Coachella Valley can be justified on the current level of travel to and from the region. On the one hand, the proposed rail service to the Coachella Valley is a traditional, relatively modest speed service. Compared to the DesertXpress it is very slow. But, it also does not cost \$4 billion dollars to construct before you can operate even one round trip. On the other hand, the Coachella Valley is far closer geographically to the Southern California gaming market than is Las Vegas. It might be that the reduced travel distance can partially offset the far greater speed of the DesertXpress to increase the market share for these Coachella Valley tourist, entertainment and gaming facilities.

In order to advance the prospects for a Coachella Valley rail service, the best model to follow is the one currently underway by the Coast Rail Coordinating Council (CRCC). There needs to be a consistent organizing group advocating for this service and seeking appropriate state funding when it is opportune. The CRCC's organizational model consists of the relevant Councils of Government and the online station cities. For this service, a Coachella Valley Rail Committee would likely consist of the Coachella Valley Association of Governments, the Riverside County Transportation Commission, and the online cities of Banning, Beaumont, Fullerton, Indio, Loma Linda, Palm Springs, Rancho Mirage, and Riverside. In addition, the key tourism, entertainment and gaming facilities would be a welcome addition to the organization. Probably the most important aspect of such an organization would be the commitment of meaningful staff time to keep the agency members informed and to arrange for meetings with important agencies for the implementation of the service – Caltrans and Amtrak.

CONCLUSION

Rail service between Los Angeles and Indio has been shown to be feasible in past studies and included in the State Rail Plan for many years. In order to implement this service, local governments will have to organize among themselves to seek serious attention from the state.

APPENDIX A

Previous Studies

1991 Los Angeles Coachella Intercity Rail Feasibility Study: This study examined an Amtrak service operating from Los Angeles to the Coachella Valley and continuing on to the Imperial Valley. Total 1991 capital costs, including rolling stock and locomotives, stations and track improvements were \$61.4 million.

1993 Coachella Valley Weekend Service Demonstration Study: After the submission of the 1991 study, the Caltrans agreed to consider including a Coachella Valley rail service in its statewide plan. That process appeared to postpone an actual date of service for several years. Consequently, the Riverside County Transportation Commission looked at implementing a weekend only service using available Metrolink cars as a test of the interest in rail service.

1999 Coachella Valley Passenger Rail Feasibility Study: The 1991 and 1993 studies were commissioned by the Riverside County Transportation Commission. The 1999 study was requested by the Coachella Valley Association of Governments. This study primarily examined the feasibility of a state-funded intercity service operated by Amtrak between Los Angeles, Riverside and the Coachella Valley. The study reconfirmed the finding of the two previous studies that the service was feasible although facing a significant institutional obstacle in the opposition of the Union Pacific Railroad who owns the section of track from Colton to Indio.

2005 Commuter Rail Feasibility Study: In 2005, the Riverside County Transportation Commission conducted an exhaustive analysis of all reasonably conceivable home-to-work commuter rail services within the county and then ranked them. The commuter rail options analyzed within the Coachella Valley performed least well of all other commuter rail options analyzed within Riverside County, primarily because of the high capital cost to resolve conflicts with freight trains on the Union Pacific Railroad tracks. This study did not examine intercity rail options which had been the focus of the preceding three studies.

Notwithstanding the seeming lack of progress towards implementing rail service between the Coachella Valley and Los Angeles, officials within the Coachella Valley still see such service as a high priority. There have been some positive milestones, including the addition of this service to the State Rail Plan prepared by Caltrans. This is an acknowledgement that the basic concept is feasible and desirable, if not perhaps immediately fundable.

APPENDIX B

Financial Analysis

Operating Costs

The table below contains an initial summary of the financial results provided by Amtrak at a very conceptual level for a single round trip on the LA to Indio service. This is based on the draft schedule for one round trip with a 7:30 a.m. departure from Indio and a 10:50 a.m. arrival in LAX with a return trip at 3:45 p.m. The second row provided data using the assumption that the additional round trip originating in Los Angeles performed exactly the same. All estimates are in 2010 dollars.

Coachella Valley Trips	Annual Ridership	Annual Expenses (millions)	Annual Revenues (millions)	Net Subsidy (millions)	Number of Daily Trains	Annual Expense by Train (millions)	Annual Subsidy by Train (millions)	One Way Trip Length (miles)
#1 IND-LA-IND	68,500	\$ 5.7	\$ 1.6	\$ 4.1	2	\$ 2.8	\$ 2.05	141
#2 LA-IND-LA	68,500	\$ 5.7	\$ 1.6	\$ 4.1	2	\$ 2.8	\$ 2.05	141
Total	137,000	\$11.4	\$ 3.2	\$ 8.2	4	\$ 2.8	\$ 2.05	141

This does not include any equipment costs should they be necessary but does include maintenance. If new equipment is necessary it could be in the range of up to \$5 million per car. It is assuming the use of one locomotive, one cab car, one food service car and five coaches. This assumes the food car is staffed with one employee.

Comparison Chart of Riverside Metrolink Services

Based on FY 2009/10 SCRRRA Budget

Metrolink Route	Annual Ridership	Annual Expenses (millions)	Annual Revenues (millions)	Net Subsidy (millions)	Number of Daily Trains	Annual Expense by Train (millions)	Annual Subsidy by Train (millions)	One Way Trip Length (miles)
Riverside Line	1,349,032	\$14.4	\$ 8.8	\$ 5.6	12	\$ 1.2	\$ 0.46	59.1
IEOC Line	1,320,087	\$19.4	\$ 7.7	\$11.6	16	\$ 1.2	\$ 0.73	100.1
91 Line	610,847	\$ 8.4	\$ 4.7	\$ 3.7	9	\$ 0.9	\$ 0.40	61.6

This analysis is conceptual and does not account for economies of scale or benefits associated with a complete rail system. In addition, it does not include equipment capital costs or station costs not born by SCRRRA.

Capital Costs

The capital costs are estimated based various assumptions related to the project. Some of the costs may be borne by the local cities or other entity. In addition, there may be requirements for capital track improvement projects required by the host railroads, however it is not possible to estimate those costs at this time.

Equipment Costs

If equipment is unavailable to be leased from Amtrak equipment stock, then the rail equipment must be purchased. The purchase price is roughly estimated at \$5 million per car. Current lease rates are not provided and are dependent on the type of equipment.

Type	Cost 1 st Set (millions)	Cost 2 nd Set (millions)
Locomotive	\$5	\$5
Cab Car	\$5	\$5
Food Service Car	\$5	\$5
5 Coach Cars	\$25	\$25
Total	\$40	\$40

Station and Layover Costs

Several of the stations are existing and can accommodate the additional trains with minimal impact. However, there are many stations that may need to be build for full service operations. The Amtrak business model has the station being paid for by the local entities. Station estimates range significantly based on required parking or amenities. For the purposes of this study, we estimate a simple station to cost \$11 million for design and construction, with the layover facility costing \$15 million.

Station Location	Cost (millions)
Redlands/Loma Linda	\$11
Banning/Beaumont	\$11
Cabazon	\$11
Rancho Mirage / Palm Desert	\$11
Palm Springs (Upgrade)	\$5
Indio	\$11
Layover Facility	\$15
Total	\$75