AGENDA
STRATEGIC PLANNING & OPERATIONAL COMMITTEE

February 16, 2016
9:00a.m

Board Room
SunLine Transit Agency
Thousand Palms, CA

1. **Call to Order**
2. **Roll Call**
3. **Presentation**
   a) Service Standards Performance Report FY 2014-15 (Semia Hackett)
4. **Public Comments**
5. **Committee Member Comments**

- RECEIVE AND FILE -

6. **Service Standards Performance Report FY 2014/15** **Receive & File**
   Recommend the Board of Directors to Receive and File the fiscal year 2014/15 Service Standards Performance Report. (Pages 1-12) **(Staff: Semia Hackett)**

- INFORMATION -

7. **2015 /Bus Stop Improvements – New Bus Shelters** **Information**
   List Phase 6
   Overview of 2015 Bus Stop Improvements (Pages 13-14) **(Staff: Semia Hackett)**

ACTION

8. **Service Standards Policy #B-190613 Amendment Approval** **Action**
(Steven Hernandez, Chair Strategic Planning & Operational Committee; Staff: Semia Hackett)
Recommend that the Board of Directors approve the attached Amended Service Standards Policy #B-190613 (Pages 15-42)

9. **Adjourn**

SunLine Transit Agency

DATE: **February 10, 2016** **RECEIVE & FILE**

TO: **Strategic Planning & Operational Committee**
Board of Directors

FROM: **Chief Administration Officer**

RE: **Service Standards Performance Report FY 2014/15**

Recommendation

Recommend the Board of Directors to Receive and File the fiscal year 2014/15 Service Standards Performance Report. The attached report will capture the following standards:

- Service Frequency and Service Span
- Service Performance
- Service Quality

Background

In July 2013, the Board of Directors approved the SunLine Transit Agency Service Standards Policy to be used in formalizing the planning, operation, management and development of major route and service changes in the Coachella Valley.

Attached is the summary of results for service standards design, performance, and quality metrics for services provided in FY14/15. The metric results of the Key Performance Indicators (KPI) are outlined in this report.

Financial Impact

The Service Standards Performance Report reflects existing transit services provided by SunLine; there are no financial impacts.

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Semia Hackett

Amended 2/16/16

SunLine Service Standard Performance Report Fiscal Year 2014/15

In July 2013, the Board of Directors approved the SunLine Transit Agency Service Standards Policy to provide the agency staff direction in the planning, operation, and management of transit service in the Coachella Valley.

This report is the annual summary of results for service standards design, performance, and quality metrics for service fiscal year 2014. The service standards policy and metrics are intended to:

- Promote continuous improvement of transit service
- Provide regular updates on service performance
- Meet federal Title VI for policy implementation and monitoring
- Avoid arbitrary decision making regarding the provision of service

Overall the metric results are good. Some areas for improvement are targeted for changes for fiscal year 2016 and will also be considered in developing the budget and Short Range Transit Plan for fiscal year 2017.

Service Design

SunLine operated 14 fixed route transit lines in the Coachella Valley during fiscal year 2014/15, as well as one Commuter Link 220 route operating between Palm Desert and Riverside.

The transit lines and the cities or communities they serve are listed in Table 1 below, with Tables 2 and 3 showing service frequencies and spans for each line:

Table 1: Summary of SunLine Fixed Route Transit Services as at July 2015

Line	Cities/Communities Served
14	Desert Hot Springs and Palm Springs
15	Desert Hot Springs and Desert Edge
24	Palm Springs
30	Palm Springs and Cathedral City
32	Palm Springs, Cathedral City, Rancho Mirage, Palm Desert and Thousand Palms
53	Palm Desert
54	Palm Desert, Indian Wells, La Quinta, Indio and Bermuda Dunes
70	La Quinta, Palm Desert, Indian Wells and Bermuda Dunes
80	Indio
81	Indio
90	Indio and Coachella
91	Indio, Coachella, Thermal, Mecca, and Oasis
95	Indio, Coachella, Mecca and North Shore
111	Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta and Indio

220	Palm Desert, Rancho Mirage, Cabazon/Morongo Casino, Beaumont, Moreno Valley and Riverside

Service Frequency and Service Span Standards
Below are listed the minimum service frequencies and spans considered sustainable with funding level increases expected for SunLine in the next two to five years:

- Key Urban Lines:
  - Frequency of Service:
    - 20-minute weekday daytime
    - 40 minute nights and weekends
  - Span of Service:
    - 5 a.m. – 11 p.m. weekdays
    - 5 a.m. – 11 p.m. weekends
- Local Community Lines:
  - Frequency of Service:
    - 35-minute weekday daytime
    - 90 minute nights and weekends
  - Span of Service:
    - 5 a.m. – 7 p.m. weekdays
    - 9 a.m. - 6 p.m. weekends
- Commuter Link Service:
  - Frequency of Service:
    - 120-minute weekday daytime
  - Span of Service:
    - 4 a.m. – 10 p.m. weekdays

These are minimum standards and can be revised where sustainable (i.e. where demand warrants, performance measures can still be met, and increased funding can sustain). With Line 20 being added, this route will be placed under the Local Community Line category.

New routes may also be implemented based on a weekdays only service typically between the hours of 6 a.m. – 7 p.m. A 12 to 18-month trial period is allocated to provide opportunity for service adjustments prior to making a decision to either retain, expand or eliminate service.

Table 2 – SunLine Service Frequencies as of July 2015

Line Number	Weekday Frequency			Weekend Frequency	
	Peak	Midday	Evening	Day	Evening
14	20	20	30	40	40
15	60	60	60	60	60
24	40	40	40	60	60
30	20	20	30	40	40
32	50	50	50	60	60
53	60	60	60	80	80
54	45	45	45	-	-
70	45	45	45	90	90
80	60	60	60	60	60
81	60	60	60	60	60
90	35	35	35	35	35
91	60	60	60	80	80
95	180	180	180	-	-
111	20	20	30	40	40

Table 3 - SunLine Service Spans as of July 2015

Line Number	Weekday Span		Weekend Span	
	Start	Finish	Start	Finish
14	4.52 a.m.	11.23 p.m.	4.52 a.m.	11.23 p.m.
15	4.54 a.m.	8.49 p.m.	6.49 a.m.	7.44 p.m.
24	6.20 a.m.	8.25 p.m.	6.23 a.m.	7.44 p.m.
30	5.19 a.m.	10.44 p.m.	6.12 a.m.	9.40 p.m.
32	5.07 a.m.	10.41 p.m.	6.54 a.m.	10.48 p.m.
53	6.18 a.m.	6.46 p.m.	9.05 a.m.	6.22 p.m.
54	6:00 a.m.	7:57 p.m.	-	-
70	5.15 a.m.	8.43 p.m.	5.15 a.m.	9.28 p.m.
80	6.00 a.m.	8.44 p.m.	6.00 a.m.	8.44 p.m.
81	5.35 a.m.	8.23 p.m.	5.35 a.m.	8.23 p.m.
90	4.55 a.m.	10.11 p.m.	4.55 a.m.	9.01 p.m.
91	4.47 a.m.	10.17 p.m.	5.38 a.m.	9.34 p.m.
95	5:35 a.m.	8:50 p.m.	-	-
111	4.51 a.m.	10.54 p.m.	5.42 a.m.	10.30 p.m.

All of the above services were provided in line with the service standards policy. The Lines 14, 15, 90, 91 and 111 weekdays operated below minimum service frequency established. Corrective action was taken in the January 2014 service change to address the service frequencies on Lines 14 and 53 weekdays.

System Ridership

Ridership system wide (SunBus and SunDial) reached 4,829,508, an increase of 1.0%:

- SunBus ridership totaled 4,674,654, a decrease of -9,624 rides (-1.0%) (by comparison, 2013-14)
- SunDial ridership totaled 154,854, an increase of 15,812 rides (up 1.1%) of rides

(by comparison, 2013-14)

Average Weekday, Saturday and Sunday ridership by month for fixed route services in fiscal year 2013/14 and fiscal 2014/15 are shown in Charts 1, 2 and 3 below.

The charts also show the seasonal variations by month:

- Average weekday ridership can be as high as 16,000 in season while as low as 11,000 in July.
- Average Saturday ridership seasonally varies from 7,000 to 10,000.
- Average Sunday ridership seasonally varies from 6,000 to 8,000.

This fluctuation is primarily due to the absence of operation of supplementary service levels ("tripper buses") when schools are out of session.

Chart 1 – Average Weekday Ridership by Month

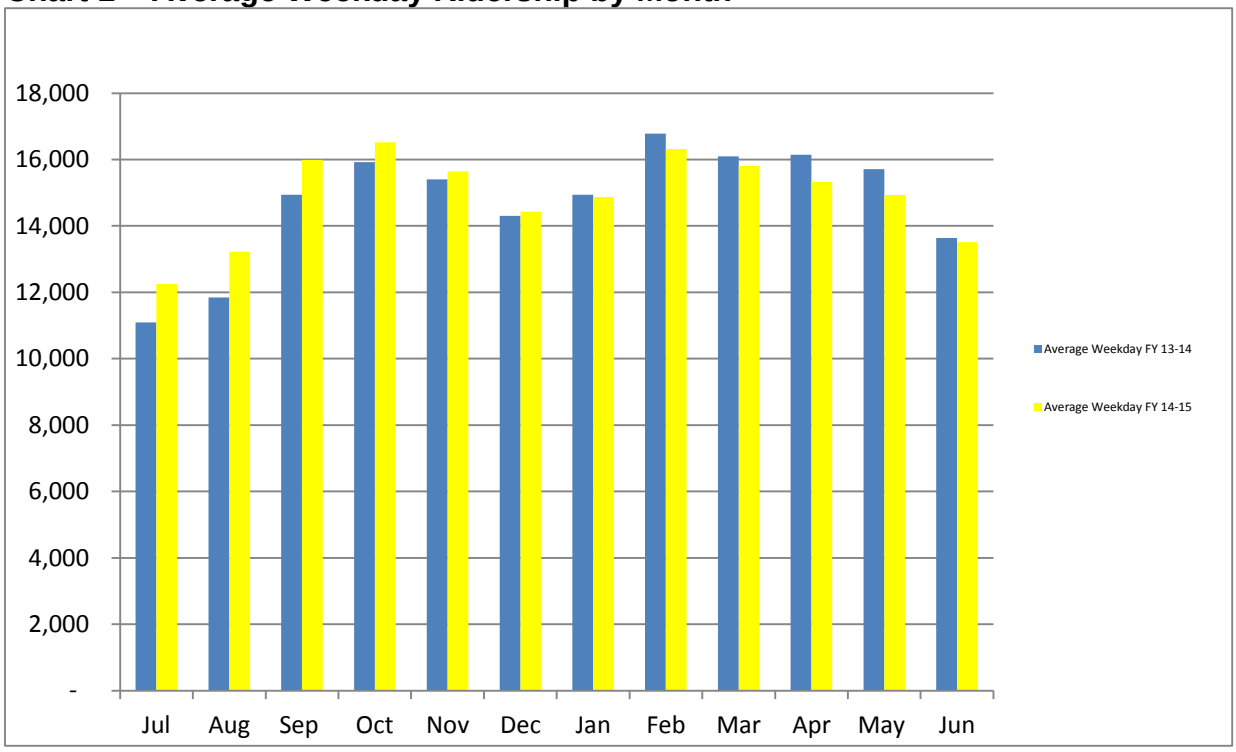


Chart 2 – Average Saturday Ridership by Month

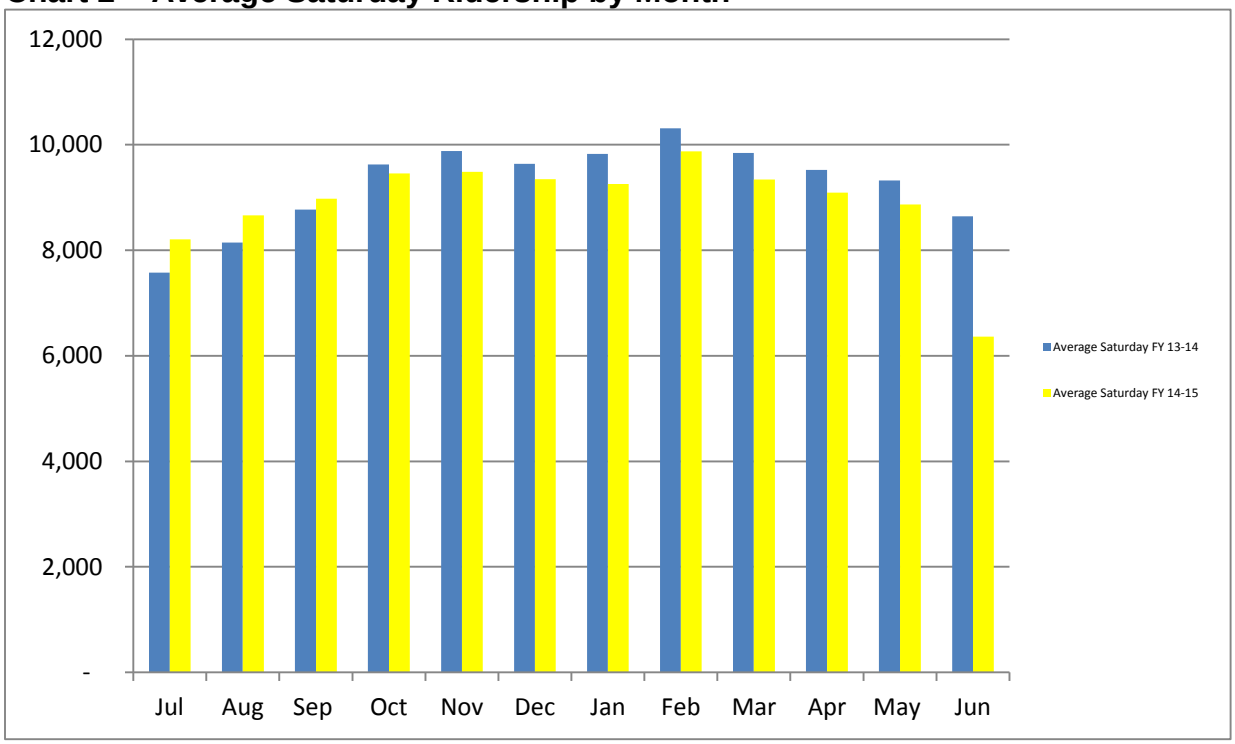
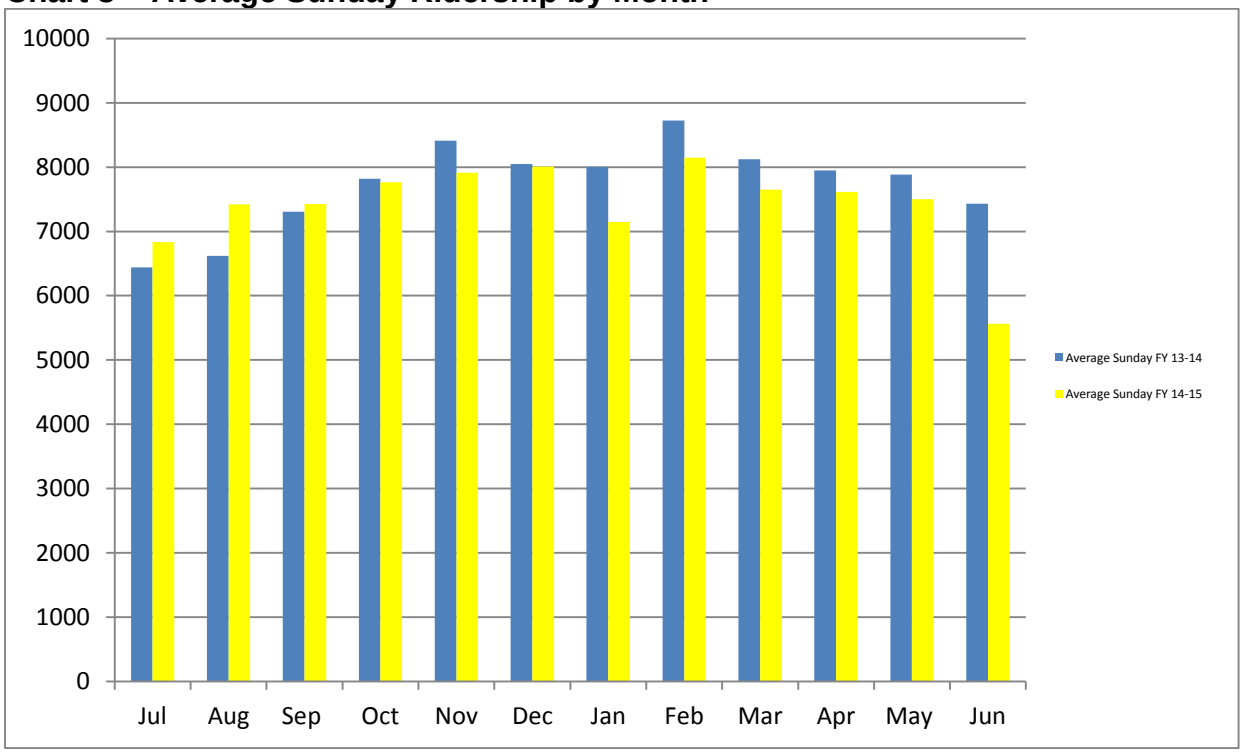


Chart 3 – Average Sunday Ridership by Month



Service Productivity and Effectiveness:
This section reviews service productivity and effectiveness through three measures:

- Ridership per hour of service (productivity)
- Farebox cost recovery (financial effectiveness)
- Subsidy per passenger boarding (financial effectiveness)

Passengers per Revenue Hour (PPRH) This KPI measures service effectiveness or productivity based on ridership (passenger boardings) generated for each hour of revenue service operated (PPRH). There are different minimum performance expectations for this metric for each service tier, as shown in Table 4 below, based on past performance of these lines and minimum standards set by many peer agencies.

Table 4 – Service Performance Expectations by Service Type	PPRH Standard
Key Urban Lines – Lines 14, 30, and 111	20
Local Community Lines – 15, 24, 53, 54, 70, 80, 81, 90, 91 and 95	10
Commuter Link Service – 220	5

Line 20 from Desert Hot Springs to Palm Desert is planned and would be treated the same as a Local Community Line for this measure.

As shown in Table 5, Lines 53 and 95 fail to reach the set minimum of 10 passengers per revenue hour and is only slightly above the metric for weekdays/ weekends for Line 53. Corrective action will be taken in September 2016 to reduce the span of service for these lines both weekdays and weekends, realigning service, as well as improve the service frequency.

Table 5 – Service Ridership and Productivity FY2014-15

Route	Average Weekday Ridership	Weekday Productivity	Saturday Ridership	Average Saturday Productivity	Average Sunday Ridership	Sunday Productivity
14	2161	22.5	1259	26.7	1032	22.6
15	374	23.5	202	15.8	166	13.0
24	629	20.1	252	14.8	210	12.3
30	2549	27.9	1467	33.7	1234	28.3
32	938	18.3	559	16.1	464	13.3
53	199	8.5	69	7.6	51	5.6

54	375	14.1	-	-	-	-
70	732	22.4	314	19.7	250	15.8
80	426	28.8	268	18.6	228	15.8
81	279	18.8	179	12.3	146	10.1
90	685	20.4	502	16.5	436	14.3
91	726	15.5	419	14.6	397	13.8
95	127	8.4	-	-	-	-
111	4637	26	3378	24.7	2766	20.2
220	50	5.3	-	-	-	-

Cost Recovery and Subsidy per Passenger Boarding This KPI measures the service cost effectiveness as defined by the proportion of cost covered by fares from passengers (cost recovery) and the net additional operating cost per passenger beyond the average passenger fare (subsidy per passenger boarding).

Table 6 below sets out targets for cost recovery and subsidy per ride at the overall transit line level. These measures are reported on annually.

Table 6 – Cost Recovery and Subsidy per Passenger Boarding Service Type	Minimum Cost Recovery/ Maximum Subsidy per Boarding
Key Urban Lines 14, 30, and 111	≥15% ≤$4.00
Local Community Lines 15, 24, 32, 53, 54, 70, 80, 81, 90, 91 and 95	≥10% ≤$6.00
Commuter Link Service – 20	≥10% ≤$25.79

Line 20 Desert Hot Springs to Palm Desert would be treated the same as Local Community Lines for this measure.

Table 7 below shows fiscal year 2014/15 operating costs, fare revenue, cost recovery, and subsidy per passenger for each fixed route transit line and the overall system.

Table 7 – Costs, Revenue, Recovery, Subsidy per Ride. fiscal year 2014-15

Route	Operating Cost	Fare Revenue	Cost Recovery
14	$ 3,180,517.67	$ 432,389.68	13.59%
15	$ 585,265.49	$ 82,816.17	14.15%
24	$ 1,086,988.41	$ 115,283.49	10.61%
30	$ 2,438,534.18	$ 488,515.02	20.03%
32	$ 1,875,983.19	$ 194,948.40	10.39%
53	$ 683,317.76	$ 39,742.39	5.82%
54	$ 713,872.44	$ 54,290.65	7.61%
70	$ 995,140.19	$ 165,340.04	16.61%
80	$ 476,571.64	$ 77,694.26	16.30%
81	$ 443,930.56	$ 61,391.70	13.83%
90	$ 1,125,642.70	$ 141,745.93	12.59%
91	$ 1,903,167.43	$ 208,951.47	10.98%
95	$ 494,130.57	$ 31,077.94	6.29%
111	$ 6,277,312.62	$ 884,017.12	14.08%
Local System	$ 22,280,374.84	$ 2,978,204.25	13.37%
220	$ 431,797.85	$ 39,919.49	9.24%
SunDial	$ 4,927,911.54	$ 297,227,65	6.03%

Of note is Lines 53, 54 and 95, which are well below 10% cost recovery, corrective actions will be taking place in September 2016 to improve ridership and reduce costs for this service in order to address its performance. Other lines meet or are very close to meeting these standards of effectiveness.

Service Quality Standards
Service quality standards are proposed to be measured using the following operational and passenger experience metrics:

- Service Scheduled Speed (service quality)
- On-Time Performance (service reliability)
- Miles between Service Interruption (service reliability)
- Average Fleet Age (service comfort)

Each suggested metric is discussed in more detail below.

Service Scheduled Speed This KPI measures service speed as scheduled. The measure is calculated by dividing scheduled in service hours by revenue miles for each route. This measure is important to be monitored as services need to maintain reasonable speed to retain and grow ridership. Transit systems typically struggle with this as it requires efforts in areas including stop spacing, management of intersection congestion, street supervision and operator training, as well as working with other city departments to manage long term service disruptions.

Table 8 below shows target performance for SunLine's transit system. The system is currently operating at or above 12.5 MPH in scheduled speed. It operates in a relatively uncongested environment and this speed is expected to be maintained.

Through significant efforts to optimize existing operations with better service frequencies and removing causes of delay, bus service scheduled speeds may increase. This measure will require ongoing improvement over time to maintain and improve performance.

Table 8 – Service Scheduled Speed Service Mode	Service Speed - Weekdays	Service Speed - Weekends
Bus	12.5 MPH	12.5 MPH

On-Time Performance This KPI measures service reliability as defined by adherence to the published service schedule. “On-time” is when a trip departs a time-point within a range of zero minutes early to five minutes late. In order to achieve targeted on-time performance, service running times need to be calibrated regularly based on existing conditions. SunLine has a relatively uncongested operating environment, which helps support a high KPI for on-time performance.

The biggest impact for on-time performance is route detours. All local routes meet this measure now excepting periods of detours, and the target of 85% is consistent with those adopted by peer systems with automated measuring tools (automatic vehicle location of AVL equipment). Table 9 below lists on-time performance standards for fixed routes.

Table 9 – On-Time Performance Service Mode	On-Time Performance Standard
Bus	85% (excepting major detours)

SunLine has a relatively uncongested operating environment, which helps support a high 86.1% on-time performance system wide for fiscal year 2014-15. The biggest impact for on-time performance in our operating area is route detours relating to road construction and/or repair projects.

Miles between Service Interruptions This KPI measures service reliability as defined by revenue miles between service interruptions, regardless of cause. To meet this target, both avoidance of service interruptions through early identification (e.g., planning for detours, proper fleet maintenance) and timely response to service interruptions that do occur with trips filled promptly are necessary.

The miles between road calls metric target is shown below in Table 10.

Table 10 – Miles Between Service Interruptions Service Mode	Target Minimum Miles Between Service Interruptions (Road Calls)
Bus	5,000

The standard of 5,000 miles was exceeded throughout the review period. Miles between Service Interruptions for Fy14/15 are noted in the table below.

FY14/15	F/R
July	24,413
August	18,246
September	32,465
October	20,678
November	55,380
December	73,335
January	37,529
February	25,090
March	20,215
April	18,597
May	14,926
June	19,628

Average Fleet Age The age of the vehicle fleet affects performance and reliability of transit services and attraction of customers. Adhering to the average fleet age requirement will ensure a consistent safe, reliable, and comfortable passenger experience. This measure should be reduced from the current ten-year standard to six years average as the purchase of new vehicles evened out (one twelfth of the fleet replaced each year) in the future when the existing fleet is replaced.

Table 11 - Vehicle Average	Average Fleet Age
Standard Transit Bus	No greater than 10 years

In fiscal year 2014/15, all fixed route buses were below 10 years of age as described below:

- 15 Orion High Floor 40 ft. buses (delivered 2005-2006)
- 41 New Flyer Low Floor 40 ft. buses (delivered 2008-2009)
- 10 El Dorado Low Floor 32 ft. buses (delivered 2010)
- 5 Hydrogen fuel cell demonstrator buses (delivered 2006, 2011, 2014, and 2015)

Paratransit Service Standards (SunDial)

The federal government through the Federal Transit Administration provides guidelines to assist agencies maintain a high standard of complimentary paratransit service for the ADA passengers. Key metrics include:

- Eligibility:
  - Any person with a disability who is unable to board, ride, or disembark from an accessible vehicle without the assistance of another person.
  - Any person with a disability who has a specific impairment related condition that prevents the person from travelling to or from a boarding/disembarking location.
  - Certification required by a doctor.
  - Visitors qualified elsewhere in USA may use SunDial ADA for up to 21 days per year and must then qualify locally.
  - Maximum 21-day response to application and an appeals process exists.
  - There is no limit to number of trips a person can make Reservations can be made up to 14 days in advance.
  - A no show policy exists for passengers who do not appear for their rides, with possible exclusion from SunDial service for a period of time in extreme cases.
  - Persons who need a wheelchair lift or ramp and a wheelchair lift-equipped vehicle/bus is unable to deploy its lift/ramp in a particular location due to physical constraints of that particular bus stop.

  SunLine's Customer Service Department processed 100% of the completed applications within the 21-day target.

- Access: The agency must serve any origin and destination pair (curb to curb) that are both within 0.75 miles of a fixed route corridor (excluding Commuter bus service), at the times and days of service when fixed route is operating. Next day service via reservation during normal business hours must be provided.

  SunBus complimentary paratransit services are available at the same times as fixed route services. Additionally, the Reservation call center accepts client reservations seven days per week between 8:00 a.m. and 5:00 p.m. for next day services.

- Travel Time: Trip pick up time must be scheduled within ±one hour of the requested departure time. Trip length should be not more than twice the time it would take to make the same trip by fixed-route (maximum 120 min).

- On-time performance: Trip pick up should consistently occur within a ±20-minute window around the schedule pick up time. Target minimum on-time performance of 90% (agency).

  During FY14, SunBus on-time performance was 90.9%.

- Capacity: No more than 50% of number of trips can be subscription, if going above this level causes a problem for non-subscription riders.

  Staff ensures subscription trips are balanced with non-subscription trips to make sure adequate levels of service are provided on a daily basis.

- Fares charged may not exceed twice the non-discounted fare for the fixed-route network at the time of the trip. No fare is to be charged to personal care attendants where they are required. Companions pay the same ADA fare.

  SunBus fares are based on the distance the individual travels. Travel within one city is $1.50/trip; travel within multiple cities is $2.00/trip.

SunLine Transit Agency

DATE:	**February 10, 2016**	**INFORMATION**
TO:	**Strategic Planning & Operations Committee** **Board of Directors**	
FROM:	**Chief Administration Officer**	
RE:	**Bus Stop Improvement Project, Phase 6**	

Background

During FY14/15, SunLine installed 35 new bus shelters and relocated four existing shelters throughout the Coachella Valley service area.

A list of 25 proposed sites to receive new shelters in 2016 is provided for Board information. The selection of the sites was based on the average daily ridership and physical suitability; most of the sites will require upgrades to ensure ADA accessibility. The SunLine staff has contacted the Cities by letter to inform each of the proposed site upgrades.

The contracts for engineering services, shelters and concrete pads will be brought to the Board for approval later in 2016.

Financial Impact

This work will be funded by FTA Section 5307 in the amount of $100,000.00 and Prop 1B Safety and Security in the amount of $261,804.50. The project budget and contract for new shelters, construction and installation will be brought before the Board for approval later in 2016.

Recommendation

This item is for information only.

Semia Hackett

SunLine TRANSIT AGENCY

SUNLINE BUS STOP IMPROVEMENT PROGRAM - PHASE 6

Update: 10/13/15

Bus Stop #	On Street	Cross Street	Position	Location	Direction	Line(s) Served by	Existing Amenities	Shelter Color	Per Day Average Boardings
Cathedral City									
32	Ramon Rd.	Landau Blvd.	Nearside	Northeast	Westbound	30	Old SunLine Shelter	Blue	84.24
37	Ramon Rd.	Landau Blvd.	Farside	Southeast	Eastbound	30	Old SunLine Shelter	Blue	71.18
					Total Number of Bus Stop Improvements =	2			
Coachella									
464	Jackson St.	Ave. 48	Mid-Block	Southeast	Eastbound	90	Signage/Pole	Blue	1.02
352	Shady Ln.	Orchard Ave.	Farside	Southwest	Southbound	90	Signage/Pole	Blue	9.25
					Total Number of Bus Stop Improvements =	2			
Desert Hot Springs									
135	Two Bunch Palms Tr.	West Dr.	Nearside	Northeast	Westbound	15	Bench & Waste Cont.	Brown	6.27
826	Mission Lakes Blvd.	El Mirador Blvd.	Farside	Northwest	Westbound	14	Bench & Waste Cont.	Brown	41.48
					Total Number of Bus Stop Improvements =	2			
INDIO									
107	Monroe St.	Hoover St.	Farside	Northeast	Northbound	80	Bench & Waste Cont.	Brown	40.77
251	Requa Ave.	Towne St.	Nearside	Southwest	Eastbound	54	Bench & Waste Cont.	Brown	11.36
252	Requa Ave.	Towne St.	Farside	Northwest	Westbound	81	Bench & Waste Cont.	Brown	10.02
739	Oasis St.	Don F. Kenny Ed. Serv Center	Mid-Blck	Nearside	Northbound	80	Bench & Waste Cont.	Brown	1.13
					Total Number of Bus Stop Improvements =	4			
LA QUINTA									
279	Washington St.	Eisenhower Dr.	Nearside	Southwest	Southbound	70	Bench & Waste Container	Brown	1.28
998	Washington St.	Ave. 48	Nearside	Southwest	Southbound	70	Bench & Waste Container	Brown	1.28
					Total Number of Bus Stop Improvements =	2			

Bus Stop #	On Street	Cross Street	Position	Location	Direction	Line(s) Served by	Existing Amenities	Shelter Color	Comments
PALM DESERT									
77	Monterey Ave.	Fred Waring Dr.	Farside	Northeast	Northbound	32	Bench & Waste Container	Brown	19.83
223	Fred Waring Dr.	Washington St.	Farside	Northwest	Westbound	54	Bench & Waste Container	Brown	9.73
272	Fred Waring Dr.	Town Center Wy.	Farside	Southeast	Eastbound	32, 53 & 111	Bench & Waste Container	Brown	299.51
715	Washington St.	Hovley Ln.	Farside	Southwest	Southbound	70	Bench & Waste Container	Brown	29.44
					Total Number of Bus Stop Improvements =	4			
PALM SPRINGS									
124	Palm Cyn. Dr.	Chino Dr.	Nearside	Northwest	Southbound	111	Bench & Waste Cont.	Brown	17.41
131	Ramon Rd.	Camino Real	Farside	Southeast	Eastbound	30	Bench & Waste Cont.	Brown	7.34
670	E. Palm Canyon Dr.	Sagebrush Rd.	Farside	Northwest	Westbound	111	Bench & Waste Cont.	Brown	49.57
725	San Rafael Dr.	Sunrise Wy.	Farside	Northwest	Westbound	24	Bench & Waste Cont.	Brown	25.43
					Total Number of Bus Stop Improvements =	4			
RIVERSIDE COUNTY UNICORPORATED AREAS NORTH SHORE & MECCA									
241	Monterey Ave.	Broadmoor Dr.	Nearside	Northwest	Southbound	32	Bench & Waste Cont.	Blue	6.06
242	Monterey Ave.	Broadmoor Dr.	Farside	Northeast	Northbound	32	Bench & Waste Cont.	Blue	6.68
366	5th St.	Dale Kiler Rd.	Farside	Northwest	Westbound	91 & 95	Bench & Waste Cont.	Blue	19.89
367	5th St.	Dale Kiler Rd.	Nearside	Southwest	Eastbound	91 & 95	Bench & Waste Cont.	Blue	12.25
399	70th Ave.	Vander Veer Rd.	Farside	Northwest	Westbound	95	Bench & Waste Cont.	Blue	6.18
					Total Number of Bus Stop Improvements =	14			

TOTAL NUMBER OF STOP IMPROVEMENTS: 25

SunLine Transit Agency

DATE: **February 10, 2016** **ACTION**

TO: **Strategic Planning Committee**
Board of Directors

FROM: **Chief Administration Officer**

RE: **Service Standards Policy #B-190613 Amendment Approval**

Recommendation

Recommend that the Board of Directors approve the attached amended Service Standards Policy #B-190613.

Background

In 2013, the Board approved the Service Standards Policy to provide Agency staff a clear direction in the planning, operation, and management of transit service in the Coachella Valley. This amended service standards document will provide SunLine staff with a policy framework which will be used to plan new transit services, make adjustments to existing service and measure how well the transit system is progressing towards achieving its goals and objectives. The Service Standards Policy will cover three categories:

- Service Design
- Service Performance
- Service Quality

The above standards are outlined in detail in the attached amended Service Standards Policy.

Financial Impact

The Service Standards reflect existing transit services provided by SunLine. There is no immediate financial impact. Any future service changes will be subject to Board approval, and each such proposal will include an estimate of financial impact to be considered as part of the service change recommendation(s).

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Semia Hackett

SERVICE STANDARDS POLICY

I. PURPOSE

The purpose of the Service Standards Policy is to provide a policy framework for guidance of staff in the design, operation, and management of SunLine Transit Agency's transit services.

II. POLICY

1. Scope

The provisions of this policy shall apply to all SunLine staff in the design, operation, and management of SunLine's transit services.

2. Objectives

SunLine's Service Standards Policy objectives shall be to:

a. Promote the continuous improvement of transit service ~~in~~ throughout the Coachella Valley and the maximization of mobility benefits to the community.

b. Support the agency in meeting Federal Title VI requirements in avoiding arbitrary discriminatory decisions regarding provision of transit service.

III. PROCEDURE

1. Background

SunLine is the sole provider of regular scheduled fixed route (SunBus) and complementary ADA Paratransit (SunDial) service for the Coachella Valley in Southern California.

SunLine Transit Agency is a Joint Powers Authority established in 1977 to provide public transit services to nine member cities and ~~five~~ seven Riverside County unincorporated communities. It is governed by a Board of elected officials, one from each of the nine member cities, plus the county supervisor.

The stated vision, mission, and goals of the agency are as follows:

- Vision
  - SunLine Transit Agency is the regional transportation mode of choice.
- Mission:
  - To provide safe and environmentally conscious public transportation services and alternative fuel solutions to meet the mobility needs of the Coachella Valley.
- Goals:
  - To provide dynamic organizational leadership and change consistent with the growth of the transit agency.
  - To continue the advancement of innovative transportation and alternative fuel technologies.
  - To provide leadership for the region's mobility needs.
  - To provide high quality transportation services that are safe, efficient, and effective.

~~**Service Area and Transit Network**~~

~~The agency currently serves the nine member cities (from west to east) of Desert Hot Springs, Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, and Coachella, plus the five unincorporated communities of Thousand Palms, Bermuda Dunes, Thermal, Mecca, and Oasis.~~

~~SunLine has a 1,120 square mile service area from the Highway 111/Interstate-10 Junction in the north-west to the Imperial County border in the south-east, bounded by mountains to the north and south.~~

SunLine operates a range of services:

- SunBus provides 1~~9~~5 f~~F~~ixed r~~R~~oute ~~SunBus Services local~~ transit lines throughout~~in~~ the Coachella Valley.
- SunLine Commuter Link s~~S~~ervice provides local and regional passenger bus service between the Coachella Valley and Riverside.
- ~~Complimentary ADA paratransit service in the Coachella Valley with 0.75 miles of the local transit network during its hours and days of operation.~~ SunDial provides transportation service required by ADA for individuals with disabilities who are

unable to use the SunBus fixed route servicestem; the system must be comparable to the fixed route system.

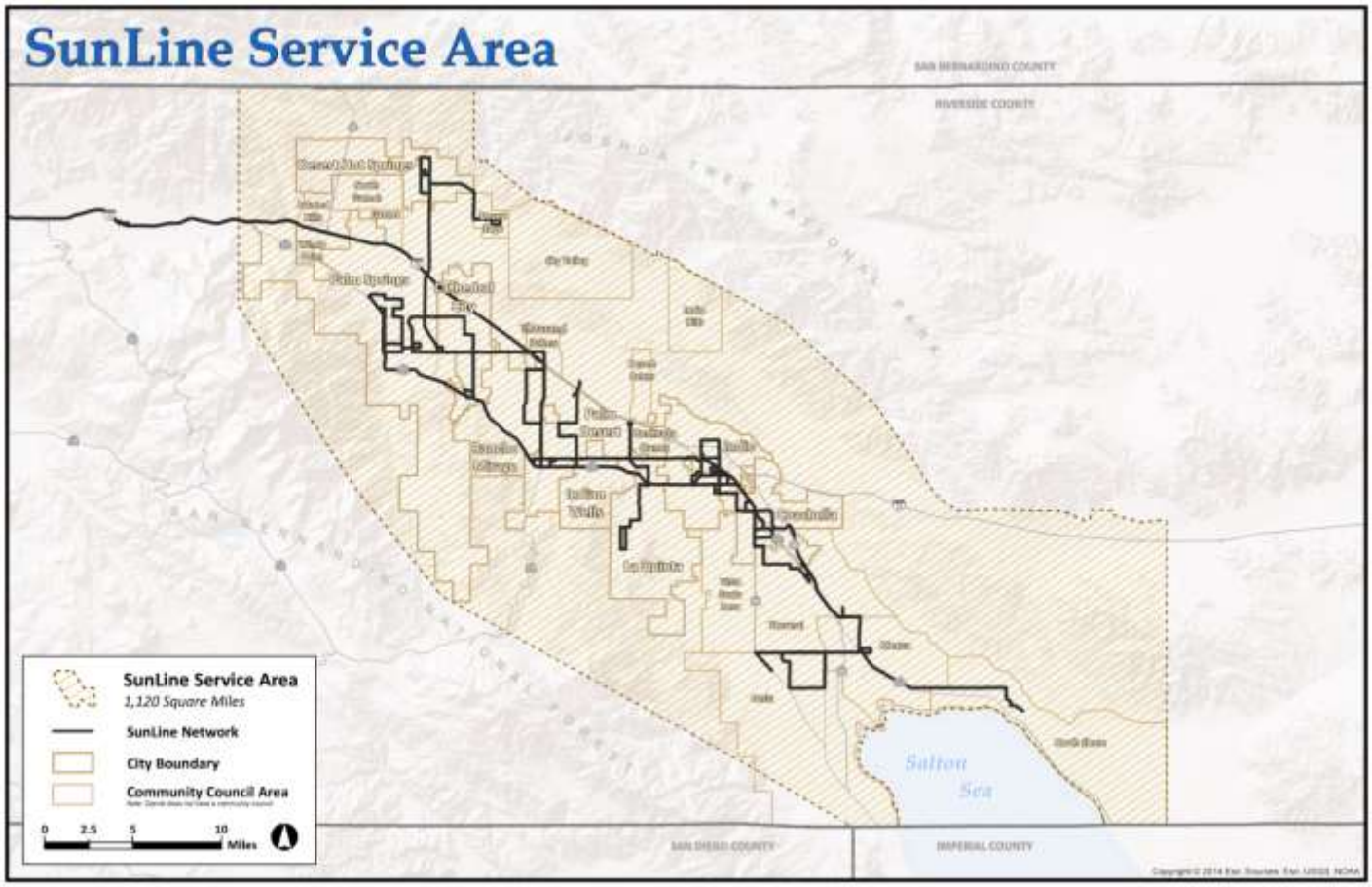
-

- Half Fare Taxi Voucher Program is a curb-to-curb, premium demand response service designed to transport residents of the Coachella Valley who are 60 years of age and older. It is provided through local taxi operators and is available 24 hours a day, year round. The continuation of this program is contingent upon grant funding. for ADA and senior (60+) customers ($75 maximum discount per 30 days per person).

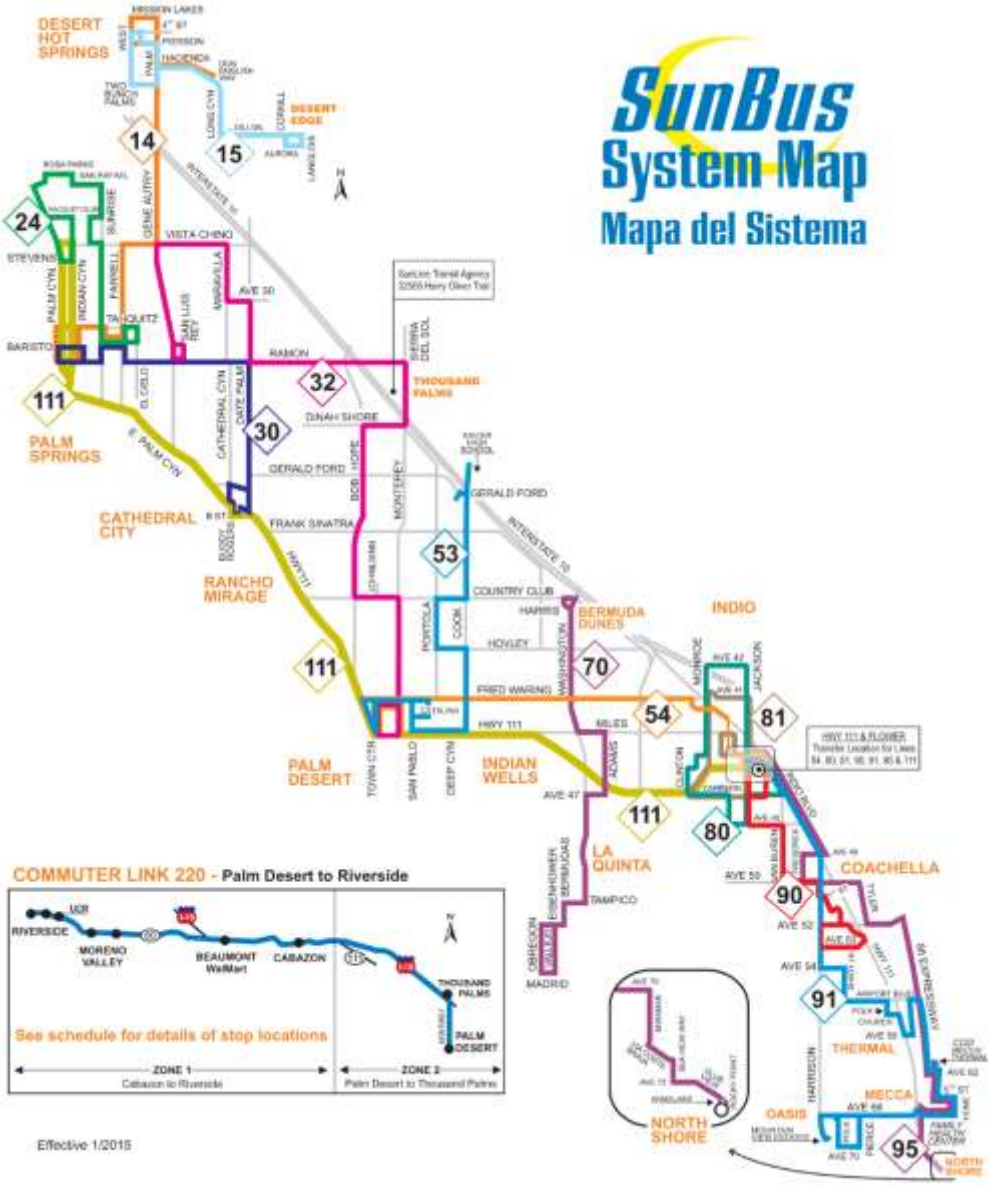
SunLine has a 1,120 square mile service area from the Highway 111/Interstate-10 Junction in the north-west to the Imperial County border in the south-east, bounded by mountains to the north and south. The agency currently serves the nine member cities (from west to east) of Desert Hot Springs, Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, and Coachella, plus the seven unincorporated communities of Thousand Palms, Bermuda Dunes, Desert Edge, Thermal, Mecca, Oasis, and North Shore.

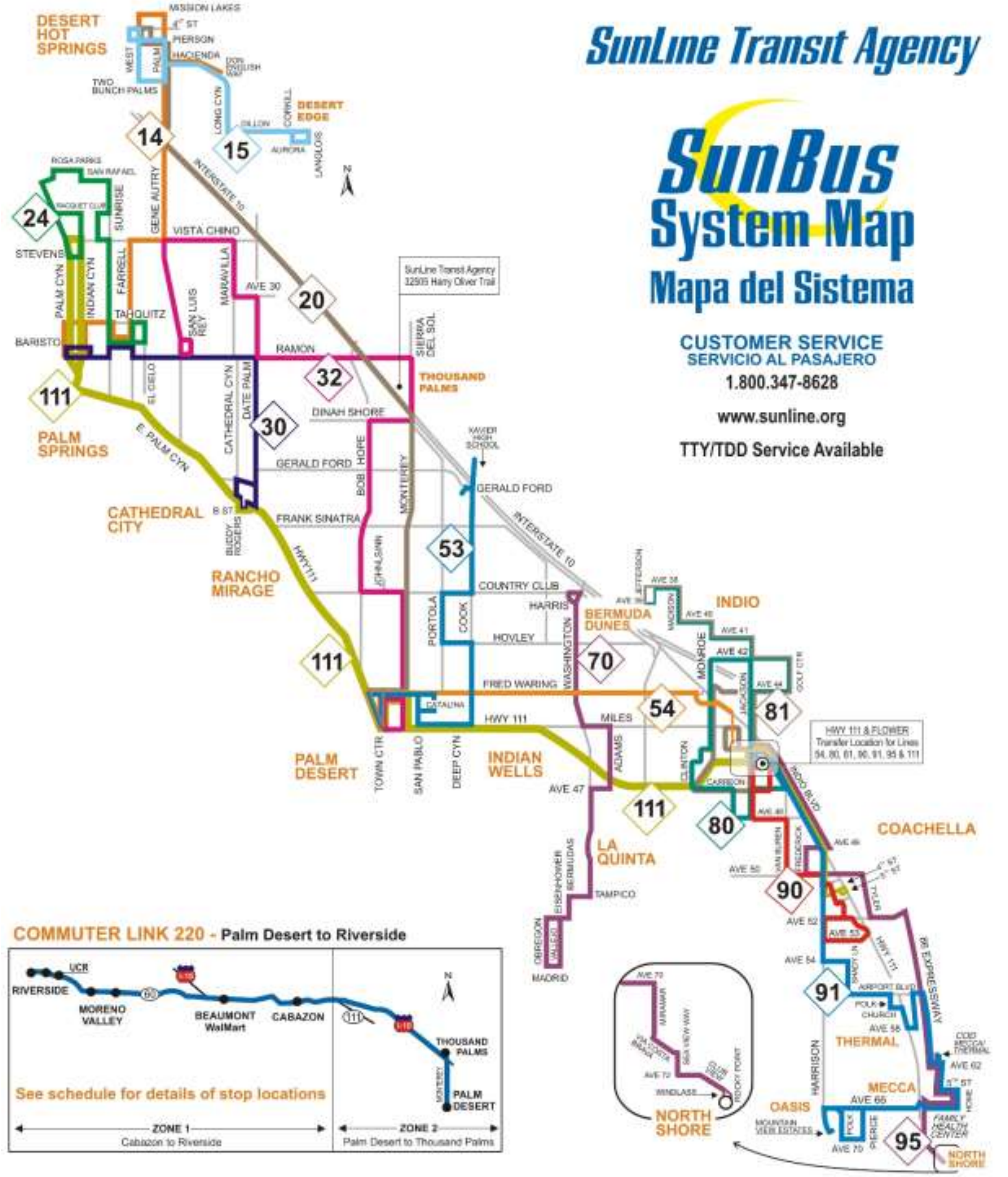
Below, Map 1 below showsillustrates the SunLine 1,120 square mile service area;. Map 2 below shows the January 2016July 2013May 2015 fixed route transit network.

Map 1 – SunLine Service Area


SunLine Service Area
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
SAN DIEGO COUNTY
IMPERIAL COUNTY
Salton Sea
SunLine Service Area
1,120 Square Miles
SunLine Network
City Boundary
Community Council Area
0 2.5 5 10
Miles

Map 2 – SunLine Transit Service Network




SunLine Transit Agency
SunBus System Map
Mapa del Sistema
CUSTOMER SERVICE
SERVICIO AL PASAJERO
1.800.347-8628
www.sunline.org
TTY/TDD Service Available
DESERT HOT SPRINGS
DESERT EDGE
PALM SPRINGS
CATHEDRAL CITY
RANCHO MIRAGE
THOUSAND PALMS
PALM DESERT
INDIAN WELLS
LA QUINTA
BERMUDA DUNES
INDIO
COACHELLA
THERMAL
MECCA
OASIS
NORTH SHORE
SunLine Transit Agency 32505 Harry Oliver Trail
HWY 111 & FLOWER Transfer Location for Lines 54, 80, 81, 90, 91, 95 & 111
COMMUTER LINK 220 - Palm Desert to Riverside
RIVERSIDE
UCR
MORENO VALLEY
BEAUMONT WalMart
CABAZON
THOUSAND PALMS
PALM DESERT
See schedule for details of stop locations
ZONE 1
Cabazon to Riverside
ZONE 2
Palm Desert to Thousand Palms

2. Service Standards Overview

This service standards document provides SunLine Transit Agency staff with a policy framework with which to evaluate both existing and potential new services, and to develop recommendations to improve overall services in order to achieve agency goals and objectives.This document sets service standards for service design, service performance, and service quality and service warrants.

The document is split into three sections:

- **2.1 Service Design Standards:** Design Sstandards refer to the design of transit services in regards to service tiers, frequency, service span, stop and route spacing, route alignment, connectivity, and stop amenities.used for design of new and refinement of existing transit services.
- **2.2 Service Performance Standards:** Performance Sstandards are used to evaluate the used in evaluating performance of existing transit services to continuously improve their productivity (efficiency) and sustainability (effectiveness).
- **2.3 Service Quality Standards:** Quality Sstandards are used to maintain and improve the consistency and reliability of service delivery and theas well as the passenger experience.
- **2.4 Service Warrants Standards:** Warrants Sstandards provide a way to determine which areas within the large service area will have both the passenger demand and performance potential to produce cost effective fixed route transit service. are used to define which areas in the SunLine service area warrant fixed-route service coverage and are particularly important when evaluating the demand for expanding the geographic coverage of transit service..
-

2.1 Service Design Standards

Market Conditions/Key Generators of Ridership

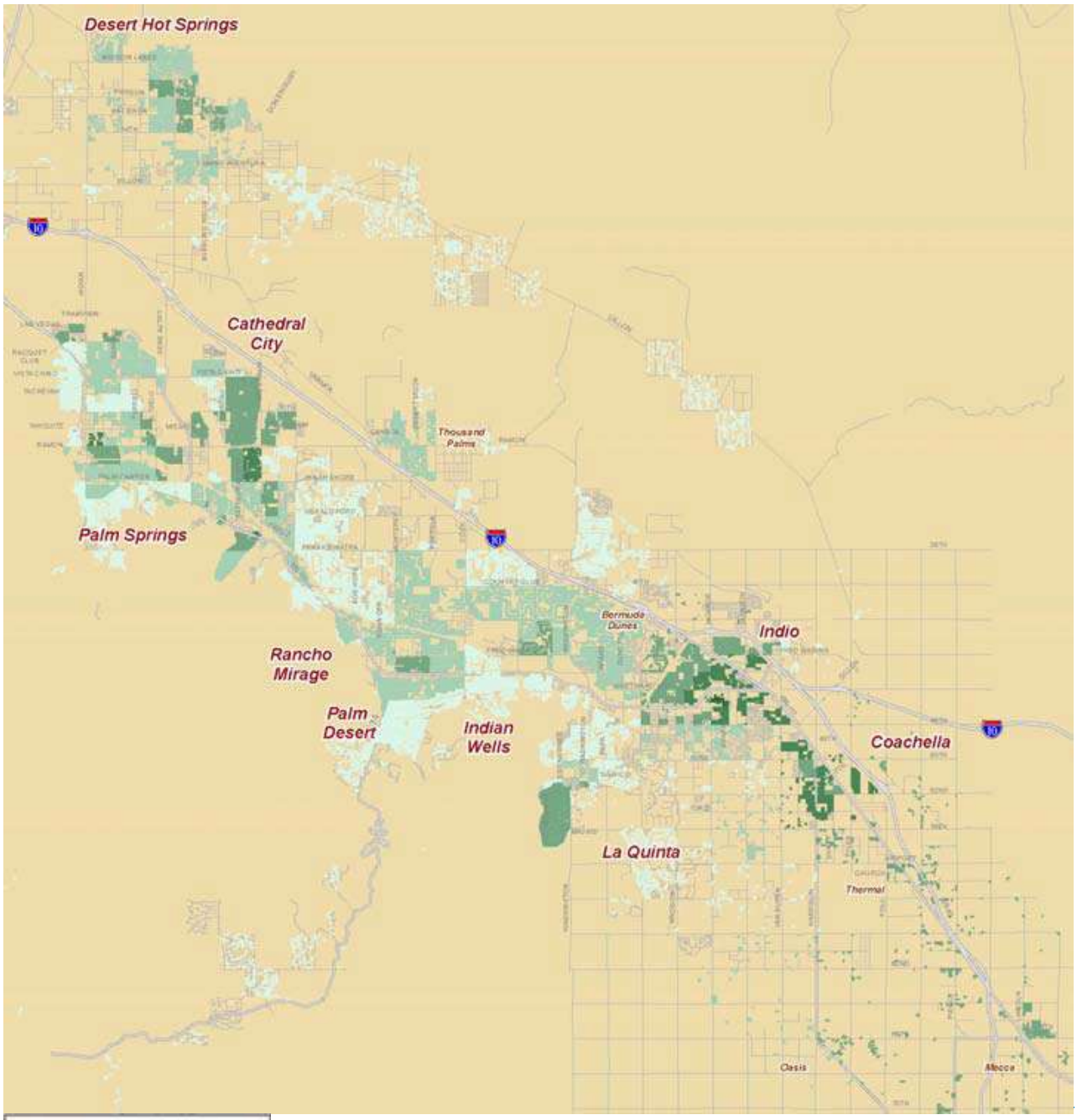
A key determinate of what transit service can be sustained in each part of SunLine's service area in the Coachella Valley is the underlying market conditions.

Key market indicators dictating where a transit line is likely to be sustainable are:

- Urban communities (Nine member cities).
- Larger unincorporated community or combination of communities, ideally contiguous to the urbanized sections of the nine member cities and/or other county unincorporated communities, ideally with 10 or more persons per residential acre (minimum 5 persons per residential acre).
- Small rural communities of at least 3,000 residents (subject to individual review based on proximity to urban network and level of demand and sustainability).

- ~~More transit oriented open communities (not gated) of working age population, youth/students, seniors, including those with relatively lower income and vehicle ownership levels.~~
- ~~Significant retail/commercial/entertainment centers with 8 or more jobs per commercial acre.~~
- ~~Major area hospitals.~~
- ~~Major schools, colleges, universities.~~

~~Service is designed as a priority to be focused on serving major arterial and more significant local roads central to communities and attractions, providing good access and efficient operation through these communities.~~


Desert Hot Springs
Cathedral City
Thousand Palms
Palm Springs
Bermuda Dunes
Indio
Rancho Mirage
Palm Desert
Indian Wells
Coachella
La Quinta
Thermal
Oasis
Mecca
Legend
Persons Per Acre
Greater than 40
20 - 40
10 - 20
5 - 10
Fewer than 5
Data Sources
SunLine, County of Riverside, U.S. Census
Date Prepared
September 2005

~~**Access to Transit Standard**~~
~~Approximately 66% of the Coachella Valley population is currently within 0.75 miles of a SunLine transit line. It is the intent of SunLine to maintain and improve upon this level as the Valley grows, subject to funding availability and how land use patterns change in the future.~~

Service Tiers
The SunLine transit network ~~can~~is classified ~~define its services~~ into three tiers that define the service level and performance expectations for each service:

- ~~**Key**~~ **Urban Lines** – Lines 14, 30, and 111
- **Local** ~~**Community**~~ **Lines** – Lines 15, 20, 24, 32, 53, 54, 70, 80, 81, 90, 91, and 95~~1~~
- **Commuter Link Sservice** – Link~~e~~ 220 ~~to Riverside~~

~~These tiers define the service level and performance expectations that each service can and should meet. Key attributes in relation to these services include:~~
- ~~Service frequencies~~
- ~~Service span of operating hours~~
- ~~Stop spacing~~
- ~~Route spacing~~
- ~~Stop amenities~~
- ~~Access to service~~
- ~~Connectivity~~

Minimum service level specifications or warrants are responsive to the service tiers, network connectivity, and ridership~~/ (~~demand~~)~~ requirements. ~~-~~Minimums may be exceeded where supported by demand and prioritized for funding of such higher service levels.

~~Key~~ **U~~u~~rban L~~l~~ines** are designed to deliver ~~have the highest~~ service in highly populated areas with high ridership and productivity anticipated, ~~(~~ also known as ridership per revenue ~~service~~ hour~~)~~. Generally, to meet the demand, ~~They need~~ higher frequencies are required to accommodate ~~this ridership~~the demand for service. Additionally, t~~T~~he~~y~~ service ~~also~~ link~~s together~~ travel between multiple communities often serving ~~and serve SunLine's~~ the Coachella Valley's busiest corridors.

Local ~~C~~community L~~l~~ines are designed to pick up and deliver passengers to an U~~u~~rban L~~l~~ine and therefore ~~. Generally, Local Lines~~ necessitate~~warrant comparatively~~ lower levels of service due to the~~ir~~ provision of ~~important but more local (single community)~~ localized transportation~~, in some cases connections between rural and urban communities, and connections to the key urban lines~~. Generally, t~~T~~hese lines typically have lower overall ridership and productivity.

~~New~~ **Commuter Link Service** is designed to provide express service to regional destinations, improving ~~Line 220 to Riverside provides two trips weekday mornings~~

~~westbound and two trips eastbound weekday evenings. This is a special two-year trial of Commuter Link service targeting~~ access to jobs and job services across the county and beyond (via connection to the regional rail network and/or Urban Lines).

Key attributes in relation to these services include:

- Stop frequencies and span
- Stop spacing
- Route spacing
- Route alignment
- Connectivity
- Stop amenities

Service Frequency and Service Span Standards

Service frequency is the number one factor that attracts new riders to a transit system. Frequency defines how long customers wait for bus service in relation to the time in which they arrive at the stop. ~~depending on how they arrive at the stop.~~ Industry experience shows more customers spontaneously show up to stops instead of planning their trips, and higher levels of frequencies decrease the average wait time for random arrivals. While high frequency service is desirable, different mobility ~~typologies~~ and service types warrant different levels of transit service.

Similar to service frequency, service span affects the variety of travel options passengers can choose to take. Routes with similar network roles should have similar spans in order to facilitate travel throughout the SunLine network. For both frequency and span, it is important to balance convenience for passengers with funding and resource constraints.

Below are ~~listed~~ the minimum service frequencies and spans considered sustainable with funding level increases expected for SunLine ~~Transit Agency~~ in the next two to five years. Services in each service type can operate more frequently or longer hours but should not operate less frequently or fewer hours than the minimum standard.~~:~~

Table 1- Frequency and Span by Service Type	Frequency of Service		Span of Service	
	Weekday	Weekend	Weekday	Weekend
Urban Lines	20~~15~~ minutes	30 minutes	~~5~~5:00 AM – 11:00 PM	~~5~~5:00 AM – 11:00 PM
Local Lines	30/60 minutes	60 minutes	~~5~~5:00 AM – ~~7~~7:00 PM	~~9~~9:00 AM – ~~6~~6:00 PM
Commuter Link	Based on demand	Based on demand	Based on demand	Based on demand

- ~~Key Urban Lines:~~
  - ~~Frequency of Service:~~

- ~~201530 minute weekday daytime.~~
- ~~403045 minute nights and weekends.~~

~~○ Span of Service:~~

- ~~5 a.m. – 110 p.m. weekdays~~
- ~~56 a.m. – 110 p.m. weekends.~~

~~• Local Community Lines:~~

~~○ Frequency of Service:~~

- ~~3530/60 minute weekday daytime~~
- ~~90 60 minute nights and weekends.~~

~~○ Span of Service:~~

- ~~56 a.m. – 7 p.m. weekdays~~
- ~~9 a.m. - 6 p.m. weekends~~

~~Commuter Link Service:~~

~~Frequency of Service:~~

~~120 minute weekday daytime~~

~~Span of Service:~~

- ~~4 a.m. – 10 p.m. weekdays~~

These are minimum standards established by SunLine and can be revised where sustainable (i.e., where demand warrants, performance measures can still be met, and increased funding can maintain operation~~sustain~~). Desired performance goals are outlined in Section 4.

~~New routes may also be implemented based on weekdays only service 6 a.m. – 7 p.m. with a trail two year period before a decision would be made on retention of service and addition of weekend service.~~

Stop Spacing Standard

The Stop Spacing Standard involves the distance between bus stops and where stops should be located. This involves balancing access to service while minimizing delay. Industry wisdom argues too many stops results in fewer riders because faster service operations is more important than minimizing walking distances. Adding ~~new~~ stops slows down a route, making it less attractive to passengers. In some cases, a stop may need to be skipped (e.g. empty land with no development) or added (e.g. special customer access need or key destination).

As part of the Comprehensive Operational Analysis Study of 2005-2006, SunLine established a 0.5 mile target average stop spacing for all routes, with changes made over the last ~~six~~nine ~~(9)~~ years having largely implemented this policy. Individual stops spacing can be varied based on local conditions with the average spacing target in mind.

Route Spacing Standard
Route spacing of at least one mile between parallel routes is considered essential for more sustainable service.

Every effort is also made to avoid unproductive duplication of routes, as well as to avoid unproductive areas such as vacant land, ~~and~~ gated resorts, and ~~or~~ residential communities.

Route Alignment Standard
SunLine fixed~~unLine~~ route lines should be designed to provide service using direct pathways to varying origins and destinations; out-of-direction movements should be minimized. Direct service is more efficient; therefore, increases in fare revenue can be anticipated while operating costs are minimized.

Deviations resulting in indirect alignments which serve high volumes of passengers may occasionally be warranted. In these cases, it is important to measure the benefit to new riders versus the impact to current riders. The impact to riders on the bus should be no more than five minutes per boarding gained on the deviation. The formula for calculating this impact is below:

$$\frac{(Passenger\ Load) * (Time\ of\ Deviation)}{Boardings\ Gained\ Along\ Deviation} \leq 5$$

For example, if a proposed deviation to a housing development would add 6 minutes in running time to a route, generate 40 new passenger boardings, and force 30 current riders to ride through the deviation, the time impact to current riders per boarding gained would be 4.5 minutes. Since this is less than 5 minutes, this deviation would be justified.

$$\frac{30\ current\ riders * 6\ minutes}{40\ new\ riders} = 4.5 > 5$$

There may be times where line deviations are warranted due to construction, special events, and/or inclement weather. These deviations are not subject to the same five-minute rule because they are temporary and often unavoidable.

Connectivity Standard
Existing service frequencies are reflective of service demand, but also are based on operating realities such as how long it consistently takes for a bus to make a round trip on a route. This mixture of service frequencies defines the experience when customers must connect between two routes.

SunLine will prioritize matching ~~headways (~~frequencies~~)~~ based on clock-face frequencies of ~~20, 40, or 60 minute headways in the short term and~~ 15, 30, and 60 minutes ~~headways~~ to facilitate connections between services.~~as service expands in the future.~~ Having consistent intervals between trips on all services allows SunLine to schedule reliable transfers and makes the schedules easier to remember. ~~This will allow for consistent connection experienced to be made between services.~~

Stop Amenities Standard
SunLine ~~Transit Agency~~ provides amenities (a bench and waste container) at all stops where a sidewalk exists (and sufficient space is available).

All stops with at least 10 average daily passenger boardings should have a shelter installed, unless prevented by local conditions ~~prevent this~~ (such as available space or design issues, as determined in consultation with each c~~C~~ity or the c~~C~~ounty).

New bus stops will be installed as mandated by the Americans with Disabilities Act (ADA) guidelines. As funding permits, the agency will upgrade existing stops to meet the standards set forth by ADA. ~~It is the goal of the agency for all stops to be ADA accessible. Less than 50 of over 500 bus stops are yet to attain this goal, though some require considerable expenditure by SunLine and/or the relevant local jurisdiction to achieve the goal. This is an ongoing project subject to funding availability.~~

2.2 Service Performance Standards

Key Performance Indicators (KPI) are used across the industry to measure, evaluate, and compare transit service performance. The following KPIs are recommended for measuring the performance of SunLine's service: ~~Service performance may be measured using a number of industry best practice Kkey Pperformance Iindicators (KPI). The following are recommended:~~

- Passengers per Revenue Hour
- ~~Passengers per Trip~~
- Subsidy per Passenger Boarding
- Cost Recovery

SunLine should regularly review service performance against ~~these~~ service ~~metrics~~ KPIs to better match service demand and supply within the financial and operational capacities of the agency. ~~Each of these metrics is~~The KPIs are discussed in more detail below.

Passengers per Revenue Hour: ~~-~~This KPI measures service effectiveness or productivity based on ridership (passenger boardings) generated for each revenue hour of service operated (PPRH).

$$\frac{Passenger\ Boardings}{Revenue\ Hours}$$

~~There are different~~The minimum performance expectations for ~~this metric for~~ each service tier ~~is, as~~ shown in Table 4 below~~.,~~ These KPIs are based on past performance ~~of these lines~~ and minimum standards set by ~~many~~ peer agencies.

Lines performing at or above 125% of their service classification target will be candidates for increased investment while lines performing at or below 75% will be subject to corrective action. These options will be discussed in more detail later in this document.

Table 2 – Service Performance Expectations by Service Type	PPRH Standard
Urban Lines – Lines 14, 30, and 111	25 passengers per hour~~20~~
Local Lines – 15, 20, 24, 53, ~~54,~~ 70, 80, 81, 90, 91 and 95	15 passengers per hour~~10~~
Commuter Link Service – 220	15~~15~~ passengers per trip~~5~~

~~Line 95 North Shore rural service is planned and would be treated as the same as Local Community Lines for this measure.~~

~~**Passengers Per Trip** As an additional measured linked to PPRH, it is also recommended that a trip on any line must average over 5 boardings per trip over the sample period (three periods per year) in order to be retained.~~

~~There are usually a very small number of trips throughout the network that do not meet this measure and these trips may be subject to cancellation.~~

~~Table 5 – Minimum Passengers per Trip~~	~~Minimum Passengers per Trip~~
~~All Service Types~~	~~6~~

Cost Recovery and Subsidy per Passenger Boarding: These KPIs measure the service cost effectiveness as defined by the proportion of cost covered by fares from passengers (cost recovery) and the net additional operating cost per passenger beyond the average passenger fare (subsidy per passenger boarding).

Targets for all SunLine services are 20 percent farebox recovery and a maximum ~~($5.00)~~ subsidy per passenger boarding. Rather than setting different standards by type of service, a system-wide standard is established based on a reasonable cost of providing service. Lines that do not meet these minimum standards are not cost-effective for SunLine to operate. Prior to eliminating service, SunLine ~~should~~ attempts to identify partners to provide funding subsidies to maintain low-performing services. The formulas for calculating farebox recovery and subsidy per passenger are below:

$$\frac{Passenger\ fare\ revenue}{Operating\ cost} = Farebox\ recovery$$

$$\left(\frac{Passenger\ fare\ revenue - operating\ cost}{Passenger\ boardings}\right) = Subsidy\ per\ passenger\ boarding$$

Table 36 below sets out targets for cost recovery and subsidy per ride at the overall transit line level. These measures should be ~~reported~~ reviewed ~~on annually~~quarterly.

Table 3 – Cost Recovery and Subsidy per Passenger Boarding Service Type	Minimum Cost Recovery/ Maximum Subsidy per Boarding
Urban Lines 14, 30, and 111	~~>~~≥~~=~~16%~~15%~~ ~~<~~≤~~=~~$5.00~~$4.00~~
Local Lines 15, 20, 24, 32, 53, 54, 70, 80, 81, 90, 91, and 95	~~>~~≥~~=~~12%~~10%~~ ≤~~<=~~$5.00~~$6.00~~
Commuter Link Service – 220	~~>=~~≥20%~~10%~~ ~~<=~~≤$5.00~~$25.79~~

~~Line 95 North Shore rural service is planned and would be treated as the same as Local Community Lines for this measure.~~

2.3 Service Quality Standards

Service quality standards contribute to the reliability and consistency of the delivery of transit service. While riders are attracted to transit service based on frequency and span, they continue to use services because they can reliably get to their destinations on-~~-~~time. Unreliable service often results in decreaseds ~~in r~~ridership. Service quality standards are proposed to be measured using the following operational and passenger experience metrics:

- Service Scheduled Speed
- On-Time Performance (service reliability)
- Percent Service Delivered (service reliability)
- Miles between Service Interruption (service reliability)
- Load Standards (service comfort)
- Average fleet age (service comfort)
- Bus deployment policy

Each suggested metric is discussed in more detail below.

Service Scheduled Speed: M~~This KPI m~~easures a routes scheduled service speed ~~as scheduled~~. The measure is calculated by dividing scheduled revenue ~~in service~~ hours by revenue miles for each route. This KPI ~~measure is important to be~~ monitor~~s~~ed ~~as~~ services need~~ed~~ to maintain reasonable speed to retain and grow ridership. ~~Transit systems typically struggle with this as it requires efforts in areas including stop spacing, management of intersection congestion, street supervision, and operator training, as well as working with other city departments to manage longer term works disruptions.~~

Table 47 below shows target performance for SunLine's transit system. SunLine's schedule average service speed standard is 12.5 miles per hour (MPH). ~~The system is actually~~

~~currently operating at above 13 MPH in scheduled speed.~~ It operates in a relatively uncongested environment, and this speed is expected to be maintained.

Through significant efforts to optimize existing operations with better service frequencies and removing causes of delay, bus service scheduled speeds may increase. This measure will require ongoing improvement over time to maintain and improve performance.

Table 4 – Service Scheduled Speed Service Mode	Service Speed - Weekdays	Service Speed - Weekends
Fixed-Route Bus	12.5 MPH	12.5 MPH

On-Time Performance: This KPI measures service reliability as defined by adherence to the published service schedule. "On-time" is when a trip departs a time-point within a range of zero minutes early to five minutes late. In order to achieve targeted on-time performance, service running times need to be calibrated regularly based on existing conditions. SunLine has a relatively uncongested operating environment, which helps support a high KPI for on-time performance. The on-time performance target is 85% for all services.

The biggest impact for on-time performance is route detours. ~~All local routes meet this measure now excepting periods of detours, and~~ The target of 85% is consistent with those adopted by peer systems with automated measuring tools (automatic vehicle location ~~of AVL~~ (AVL) equipment).

~~It may be necessary to adopt a different measure for the Commuter Link 220 given its long length and more congested operation in Riverside area.~~

Table 5 – On-Time Performance Service Mode	On-Time Performance Standard
Fixed Route Bus	85% (excepting major detours)

Percent Service Completed: This KPI measures service reliability as defined by percentage of trips completed daily. There are three components necessary in order to measur~~e~~ing completed trips: ~~In order to meet the service delivery target, which is measured as trips completed, there are a number of key components:~~

- 100 percent daily availability of both operators and fleet to meet service demands
- ~~High fleet reliability~~Miles between s~~S~~ervice i~~I~~nterruptions

- Timely response to service interruptions (less than half an hour)

~~SunLine has the opportunity to maintain a good adherence to all of these factors and consistently meets target.~~ The target is consistent with that adopted by peer systems.

Table 6 – Percentage of Service Completed Service Mode	Service Completed Minimum Standard
Fixed Route Bus	99%

Miles Between Service Interruptions: This KPI measures service reliability as defined by revenue miles between service interruptions, regardless of cause. SunLine's standard is 10,000 miles. This measurement also includes bus exchanges where buses are swapped out in service though service is often not interrupted. To meet this ~~target~~standard, both avoidance of service interruptions through early identification (e.g., planning for detours, proper fleet maintenance, etc.) and timely as well as~~and~~ proactive response to service interruptions~~. that do occur with trips filled promptly are necessary.~~

~~At this time, the measurement is proposed to utilize the miles between road calls measure with a minimum 5,000 miles between roadcalls target (consistently met and consistent with peer system targets). It is also proposed to include the number of bus exchanges, where buses are swapped in service, as part of this measure, though service is often not interrupted for these exchanges.~~

Table 7 – Miles Between Service Interruptions Service Mode	Target Minimum Miles Between Service Interruptions (Road Calls)
Fixed Route Bus	10~~5~~,000

Load Standards: This service quality KPI establishes load standards for various vehicle types and is measured for each trip operated. While it may be acceptable for some riders to stand for short distances or time periods (e.g. under 2 miles and/or~~,~~ 10 minutes) during peak periods, it is generally accepted that seating should be available for all riders during normal off-peak conditions.

~~There are a very limited number of trips in the SunLine network that exceed this target from time to time and these are usually the result of high numbers of school students being transported~~carried~~. The target is consistent with peer systems.~~

Table 8 – Load Standards Service Period	Maximum Consistent Load Factor
Peak	Average over 133% of seated load = 50 passengers

Off Peak	Average 100% of seated load = 38 passengers

Any vehicle operating at high ~~-~~speeds on highways (e.g., Routes 20, 91, 95, and 220) requires all passengers to be seated, reducing the maximum load on these services to 100 percent of seated capacity. ~~SunLine Commuter Link 220 to Riverside at this time does not experience any problems meeting this KPI. Rural routes such as the planned North Shore Line 95 as well as Line 91 would be also be subject to no standing passengers where operating on Highway 86.~~

Average Fleet Age: The age of the vehicle fleet affects performance and reliability of transit services ~~and attraction of customers~~as well as system attractiveness to customers. SunLine's standard for average fleet age is no greater than 10 years. Adhering to the average fleet age ~~requirement~~ standard will help ensure a ~~consistent safe,~~ reliable~~,~~ and comfortable passenger experience. ~~This measure should be reduced from the current ten year standard to six years average as the purchase of new vehicles evened out (one twelfth of the fleet replaced each year) in the future when the existing fleet is replaced.~~

Table 9 - Vehicle Average Age	Average Fleet Age
Standard Transit Bus	No greater than 10 years

Bus Deployment Policy

Bus deployment specifies the type of vehicle that should be used to operate individual routes. The type of vehicle deployed on a route depends primarily on ridership demand and trip loads. Using incorrectly sized vehicles on routes can unnecessarily add operating cost to a route or result in overcrowding issues.

~~Line 220 Commuter Link services shall utilize the four dedicated Commuter Link New Flyer buses (575-578). Two of these are deployed each day.~~

~~Key~~ Urban Lines 14, 30, and 111 ~~(21 peak buses deployed each day)~~ should~~all~~ utilize ~~the New Flyer fleet (579-594, 601-621)~~ 40-foot~~'~~ buses due to ~~their~~ high passenger volumes/turnover, frequent stops, and route gradients ~~(Line 14)~~ in order to maintain reliable and on-time service.

Local Lines should use either 40-foot~~'~~ or 32-foot~~'~~ buses based on ridership demand. Routes with lower demand ~~for~~ should use 32~~'~~-foot buses ~~because they are best suited for routes~~ to meet the demands of ~~with~~ lower ridership and having fewer seats will not result in load or overcrowding issues. ~~Local community line bus assignments and any school tripper assignments shall rotate the remaining New Flyers (8 daily based on 20% unavailable) and the older high floor Orion fleet (15 out of 69 buses = 21.7% of fleet, or 10 bus assignments each day).~~

Table 10 – Bus Deployment	Vehicle Type

Urban Lines	40’ buses
Local Lines	32’ or 40’ buses depending on ridership demand
Commuter Link	40’ buses

~~Buses on Line 32 and planned Line 95 from the ten (10) El Dorado midi buses are used on these selected assignments based on serving trips with low load factors suitable to be served by their smaller passenger seating capacity without breaching the load factor KPI above.~~

SunLine will review the Bus Deployment Policy every two years beginning in 2016 and make necessary adjustments as the fleet is updated and to ensure compliance with Title VI requirements.

~~Paratransit Service Standards (SunDial)~~

~~The federal government through the Federal Transit Administration provides guidelines that help agencies maintain a high standard of service for the ADA passengers.~~
~~Key metrics include:~~

- ~~Eligibility:~~
  - ~~Any person with a disability who is unable to board, ride, or disembark from an accessible vehicle without the assistance of another person.~~
  - ~~Any person with a disability who has a specific impairment related condition that prevents the person from travelling to or from a boarding/disembarking location.~~
  - ~~Certification required by a doctor.~~
  - ~~Visitors qualified elsewhere in USA may use SunDial ADA for up to 21 days per year and must then qualify locally.~~
  - ~~Maximum 21-day response to application, and an appeals process exists.~~
  - ~~No limit to number of trips a person can make but two round trips only per reservation call. Reservations can be made up to 14 days in advance.~~
  - ~~A no show policy exists for passengers who do not appear for their rides, with possible of exclusion from SunDial service for a period in extreme cases.~~
- ~~Access: The agency must serve any origin and destination pair (curb to curb) that are both within 0.75 miles of a fixed route corridor (excluding Commuter bus service), at the times and days of service when fixed route is operating. Next day service via reservation during normal business hours must be provided.~~
- ~~Travel Time: Trip pick up time must be scheduled within +- one hour of the requested departure time. Trip length should be not more than twice the time it would take to make the same trip by fixed-route (maximum 120 min.).~~
- ~~On-time performance: Trip pick up should consistently occur within a +-20-minute window around the schedule pick up time. Target minimum on-time performance of 90% (agency).~~

- ~~Capacity: No more than 50% of number of trips can be subscription, if going above this level causes a problem for non-subscription riders. Passengers with~~
- ~~Fares charged may not exceed twice the non-discounted fare for the fixed-route network at the time of the trip. No fare is to be charged to personal care attendants where they are required. Companions pay the same ADA fare.~~

5. ~~Service~~ Warrants Standards

~~Service~~ Wwarrants Standards provide a way to determine which areas within the large service area will have both the passenger demand and performance potential to produce cost-effective fixed-route transit service. In order to ensure the financial sustainability of the agency, SunLine should only introduce new services that perform at or above the current system average. Planning new services around these guidelines will help ensure successful performance of new routes. Providing a set of guidelines for which areas warrant all-day fixed-route service will help SunLine respond to future community requests for new service.

Network Role

New services should be evaluated for their place in the overall transit network. Each new route in the network will have a unique role, whether it is facilitating transfers with existing services, introducing service coverage to a recent development, or providing connections between current routes and major destinations. While successful new routes connect with existing services, they should not duplicate existing service or compete for passengers.

Market Opportunities

There is a strong correlation between service performance, ~~and~~ surrounding population and employment densities; the more people with access to a route, the higher the route's ridership. Population-dense areas tend to coincide with mixed-use neighborhoods, walkable environments and higher populations of transit-friendly constituencies such as students, seniors, zero-vehicle households, and low-income populations.

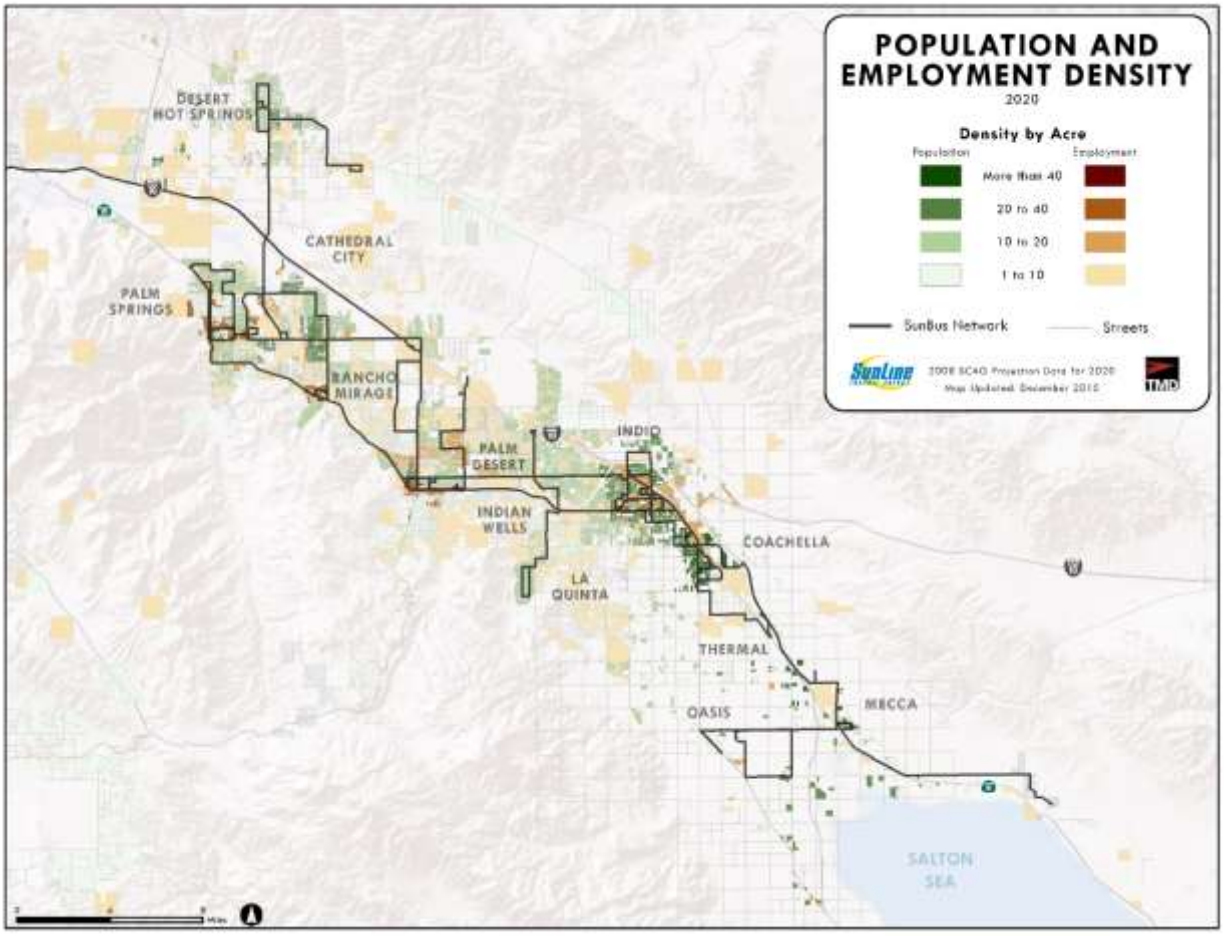
The minimum population and employment density for the introduction of new all-day fixed-route transit service is an average of 10 people/jobs per acre within a half mile of the proposed route.

$$\frac{Sum\ of\ population\ and\ jobs\ within \frac{1}{2} mile\ of\ route}{Sum\ of\ population\ and\ employment\ acres\ within \frac{1}{2} mile\ of\ route} >= 10$$

At densities over this minimum threshold, transit has the opportunity to play a meaningful role in public mobility. Areas with densities below this minimum threshold are not considered supportive of fixed-route service and should not be subjected to further analysis. Areas in this category that have unmet needs may be served by alternative options to fixed-route service.

Unmet Mobility Needs

SunLine should strongly consider the mobility needs of transit -dependent populations when evaluating where to operate service. In assessing the area's demand for transit service, it is important to examine the presence of these demographic groups and identify any present unmet needs.



Key Destinations

Key destinations likely to generate higher demand for transit service include major area school, colleges, universities, hospitals, retail/commercial/entertainment centers with more than eight jobs per acre, and open residential communities (not gated) ~~home~~ to those with relatively lower income and vehicle ownership levels.

Evaluating New Services

New services should be implemented on weekdays only and operate between 6:00 AM and 7:00 PM. Once a new line has been implemented, it should be closely monitored to determine whether it is reaching its desired performance standards. The line should first be evaluated after six months to determine whether it meets more than two-thirds (2/3) of its

performance standards. New services not meeting the minimum standards at the end of an 18-24-month trial period are subject to corrective action or discontinuation.

In some cases, trial periods for new services may vary based on the requirements of grant funding. For example, if a grant provided three years of funding for a route that did not meet standards, this route would still be operated for the full three-year period.

3. ~~Definition: Significant~~Major Service Change

According to the provisions of the Title VI of the Civil Rights Act of 1964, (FTA C4702.1B), no person in the United States shall, on the grounds of race, color, or national origin, be excluded from, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

To comply with FTA C 4702.1B, SunLine has~~will~~ implemented the following policy regarding the Title VI Analysis of proposed impacted routes and/or schedule changes prior to the implementation of any significant service changes or fare increases.

A mandated s~~S~~ervice c~~C~~hange ~~(ATU, Local1277, CBA March 31, 2016)~~ occurs no more than three times a year, unless necessitated by service adjustments and/or other operational requirements. ~~-~~A major service change is defined by SunLine as any permanent service change (6 months or longer duration) of 25% or more in revenue hours and/or revenue miles, span of service, or alignment miles for a given route or the network overall for any day type (weekday, Saturday, Sunday, and Holiday). Such changes require a public hearing and SunLine Board approval before implementation.
~~unLine as:~~

~~Individual route revenue hour or mile changes of 25% or greater within a 12-month period~~

~~Establishment of a new transit service; or,~~

~~Abolishment of an existing service.~~

~~Associated with the service standards is a requirement to have a definition (Board approved) for a significant service change. This is recommended to be as follows:~~
~~A major service change is defined as when revenue service miles and/or hours change for a given route by 25% or more.~~

~~This definition determines when a public hearing must be held for a service change prior to its approval by the Board.~~

Under Title VI requirements, SunLine also identifies a Disparate Impact Policy and Disproportionate Burden Policy to ensure low-income and minority populations are not adversely affected by service changes.

- Disparate Impact Policy: A disparate impact occurs when the impact of proposed service or fare changes to minority populations is 20% greater than the impact to non-minority populations.
- Disproportionate Burden Policy: A disproportionate burden occurs when the impact of proposed service or fare changes to low-income populations is 20% greater than the impact to non-low-income populations.

4. Reporting and Management ~~of Service Standards~~

To monitor KPIs adequately, data will be reviewed monthly or quarterly, as most appropriate. The Board of Directors will receive an annual ~~summary~~performance report in December.

All services will be monitored for adherence to the productivity, farebox recovery, ~~and~~ subsidy per passenger ~~performance metrics~~ and are divided into three ~~three~~ tiers based on ~~their~~ performance:

- High-performing service: performs at or above 125% of the tier productivity standard
- Average-performing service: performs between 76%-124% of the tier productivity standard
- Low-performing service: performs at or below 75% of the tier productivity standard

High-Performing Service - Green (125% or higher of tier standard)

Lines with high performance suggest the need for greater investment, as high performance may signal the presence of significant latent demand. This category of services constitutes the top-performing tier of the entire SunLine system. It is very important to maintain a high-quality level of service as well as to continue further investment. Creating standards for high-performing service prioritizes investment in the core system. Upgrading high-performing lines directs investment where it will be most effective.

The primary form of investment is in service frequency. Increasing frequency will prevent overcrowding on popular routes and make the service more attractive to a wider pool of potential customers. It will make the service more convenient for both current and future riders. Another investment is providing enhanced high-quality features along the route. Bus bulbs, bus-only lanes, and transit signal priority are all methods for decreasing delay and travel time along a route and improving the customer experience. Upgrading amenities at bus stops also makes services more attractive to riders and enhances the branding of SunLine services. All of these investments make buses more competitive with automobile travel.

Average-Performing Services- Yellow (76%-124% of tier standard)

Services in this category are adequately fulfilling their roles in the transit network, and no corrective action is required. These routes will be monitored on an ongoing basis to determine how their performance changes over time. While Green tier services should be

prioritized for service investment, the same investment strategies can be applied to the Yellow tier services to improve system performance.

Low-Performing Services - Red (75% or below of tier standard)

Low-performing services indicate ridership demand is not high enough to justify the amount of resources being invested. Since SunLine works within the constraints of limited resources, it is important the use of each route is being maximized. Corrective Action Plans for low-performing services are designed to help improve performance to justify the level of resource investment. For productivity, lines will be considered to be "low-performing" if it does not reach 75% of the performance target for its tier. For the farebox and subsidy standards, the line must exceed the minimum threshold.

Corrective Action Plan

The *Corrective Action Plan* will examine the routing, schedule, route segments, and span of service in order to diagnose weaknesses in the route's current operations. Using the information gathered, SunLine will develop a *Corrective Action Plan* for improving performance which will be implemented in the next feasible service change given the limitations in place regarding public process, public hearing (if required), and annual service change calendar. Areas of consideration follow:

- Segment-Level Analysis: A segment-level analysis may highlight a specific portion of the line that limits overall performance, causing it to perform below the standard for its tier. If a low-performing segment is identified, it can be modified in an attempt to raise the productivity of the route as a whole.
- Operational Analysis: Realigning service to cover only critical segments or eliminating unnecessary delay (e.g. deviations) are ways to reduce travel time and save resources, thereby raising performance levels while retaining ridership.
- Change in Service Levels: Adjusting the service levels of a low-performing route (e.g. ~~–~~by any combination of frequency, span, or day of week changes)~~ –~~ may help tailor the transit product to its market, and subsequently increase productivity.
- Cost-Sharing: Exploring cost-sharing or public-private partnerships can reduce the amount of subsidy required to operate low-performing services. This is applicable for services that do not meet minimum performance standards yet serve a need~~ed~~ identified by businesses, schools, attractions, or other organizations that may be willing to assist with funding operations in order to continue service.
- Targeted Marketing: Marketing tactics can help raise the public awareness of a service in need of improvement. Poor ridership may be a result of a lack of public knowledge of a route ~~,~~ and investing in marketing can help reverse this trend. This is especially the case for targeted market groups like employment centers, shopping districts, schools, hospital, agencies, and other major destinations.
- Rider Outreach: Onboard surveys and rider interviews are methods for gaining valuable information on how a route can be improved. These methods can reveal information about popular destinations that a route may bypass~~,~~ or other aspects of a service that may be holding back ridership growth.

Consequences/Outcomes
Once a *Corrective Action Plan* is implemented the route must exceed "low-performing" in two of the three performance metrics for at least one quarter within the first three successive quarters or face further action which may include line elimination. If a route meets the expectations, the process of the *Corrective Action Plan* will be deemed concluded. Subsequent low performance will be reviewed as a new event.

In the event the corrective actions are unsuccessful in raising at least two of the metrics (productivity, farebox recovery, or subsidy per passenger) to above "low-performing" after six consecutive quarters, discontinuation may be necessary to ensure effective use of agency resources.

~~It is proposed that service standards be reported on once per year to the Board (in December), reporting for the previous fiscal year. Data would also be reviewed quarterly or monthly by staff (depending on the indicator and its data requirements).~~

~~Service design standards should be met by all the services operated by SunLine Transit Agency. If not, the following processes are utilized:~~

- ~~Failure of a route, trip, or the system as a whole to reach a service performance or service quality metric in one reporting period would place it under review to identify cause and possible corrective actions.~~
- ~~Four successive periods of failure for a route, trip, or the system overall to achieve a metric would lead to corrective actions being recommended to the Board such as:~~
    - ~~Additional marketing efforts for a route.~~
    - ~~Discontinuation, modification, or supplementation of trip or route.~~
    - ~~Revision of route schedule.~~
    - ~~Maintenance or operational procedure changes.~~

~~A timeline would then be set for a given service metric being achieved again.~~

Approved:

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Lauren Skiver~~Roger Snoble~~
CEO/~~Interim~~ General Manager