



2014 Muir Woods Shuttle **Evaluation Report**

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Introduction

The Muir Woods Shuttle provides service to Muir Woods National Monument in Marin County, California. The Shuttle service began operation in 2005 as a demonstration project to provide an alternative to automobile access and alleviate parking demand and traffic congestion. After ten seasons of operation, the Shuttle has become an integral mode of access to the park, carrying approximately 18% percent of all visitors during summer weekends.

Shuttle History

The Shuttle represents a unique partnership of government at a number of levels. The service was originally designed as a partnership of the National Park Service (NPS), County of Marin, and Golden Gate Transit. In 2009, responsibility for the Shuttle shifted to the Marin County Transit District (Marin Transit) under a funding agreement with the National Park Service. Golden Gate Transit operated the service under contract to Marin Transit, as Route 66 through 2011. In 2012, a new contract began with MV Transportation for the operation of the service. The new contract has most notably allowed for increased service frequency due to its lower hourly rate.

In the 2013 season, Marin Transit formed an additional partnership with the Golden Gate National Parks Conservancy to administer a new fare collection process to ease boarding delays and provide an additional convenience to customers.

Funding

For the first three years of operation, ending in 2007, the service was funded primarily through a grant from the Federal Highway Administration (FHWA). Funds for the 2008 season were provided by a combination of TCSP (Transportation and Community and System Preservation Program) and PLH (Public Lands Highway Discretionary Program) funds. In May 2009, the Shuttle became a regular Marin Transit route, funded partly by the Transit District and partly by the Park Service.

Description of Service

For the 2014 season, shuttle service was provided on weekends and holidays, beginning five weeks earlier than previous seasons on Saturday, March 29 and continuing through Sunday, October 26. Service operated on three holidays, including Memorial Day and Labor Day, as well as the 4th of July, which fell on a Friday this year.

In response to customer feedback and service evaluations over previous years, the District took additional steps to improve service. These include efforts to provide more consistent and reliable schedules, accommodate increasing demand during peak travel times, and minimize customer confusion.

Figure 1 shows the routing of the Shuttle for the 2014 season.

Figure 1: 2014 Muir Woods Shuttle Map Legend Muir Woods Shuttle - timepoint stop does NOT stop between labeled timepoints MILL VALLEY 61 West Marin Stagecoach Other Route Muir Woods Ferry Route TAM VALLEY 71 70/80 1.0 miles Pohono St Park & Ride Lot Marin City Hub 0 **MARIN CITY** 10 70 80 **SAUSALITO** MUIR BEACH Sausalito Ferry

Changes for the 2014 Season

Schedule Times

Issue: Schedule adherence, service frequency

Service was provided at regular hourly frequencies to and from Sausalito as opposed to timing trips to meet specific ferry arrivals, which tend to be irregular and change mid-season. This allowed for more efficient use of vehicles, as well as additional recovery time to account for any unexpected traffic delays.

Backup Vehicle

Issue: Passenger pass-ups, waiting time

Despite the significant amount of additional service provided in the 2013 season, demand continued to surpass capacity during the busiest times leading to pass-ups and long waits. Whenever possible, a spare vehicle was put into service to help alleviate this issue when needed.

Marketing Materials

Issue: Passenger information, navigation

Many visitors to Muir Woods are not familiar with the transit system in Marin County or with transit in general. For these potential Shuttle riders, a traditional schedule brochure is not intuitive and does not draw much interest. This season, a second brochure was created to provide more general information about the Shuttle as an option to get to Muir Woods. In particular, the brochure focused on how to get to the Shuttle stops and provided general service span and frequency. This piece was distributed to hotels, visitor centers, and other tourist locations, schedule brochures were provided at the bus stops and on the buses.

The peak season runs from Memorial Day weekend to Labor Day weekend. Service between Pohono and Muir Woods was provided approximately every 10 minutes with the first trip departing at 9:05 am and the last return trip leaving the Park at

7:20 pm. During the shoulder season, service was provided every 20 minutes with generally the same span of hours. Beginning in mid-September, service ended earlier to coincide with the park's closing time.

Service on Route 66F to and from Sausalito was provided every hour, with five trips going to the Park and six trips returning. The route also serves Marin City to allow for connections to and from regional and local buses. In response to high demand to and from Sausalito, an extra back-up bus was provided when needed.

In all, service was provided on 33 peak summer days and 32 shoulder season days. Service on both Route 66 and Route 66F was provided throughout the season.

The route brochure for the 2014 season, which includes schedules and other passenger information, and the visitor brochure are included in Appendix A.

Table 1 summarizes service changes over the last five years of operations.

Fares

For the 2014 season, the new fare payment process that was first implemented in the previous season remained in place. The round-trip adult fare was \$5.00 per person, while youth ages 15 and younger, seniors with a Lifetime Pass, and disabled individuals with a Federal Lands Access Pass were not charged a fee.

Customer Liaisons

A Customer Liaison was hired to assist passengers waiting for the Shuttle at the Pohono Park & Ride

Lot. The Liaison was responsible for providing information to passengers, particularly on the fare payment process. The Liaison was also able to track buses using the onboard Automated Vehicle Location (AVL) technology and provide passengers with real-time arrival information. Finally, the Liaison helped administer the passenger survey to those boarding at Pohono.

At Pohono, one person was scheduled each day from May until September, with the shift starting at 9:30 am and ending at 3:30 pm.

As part of a pilot Stagecoach service expansion to Fort Baker, Customer Liaisons were hired to help

promote the new service in Sausalito. These additional Liaisons were also able to provide information on other local transit services, including the Muir Woods Shuttle.

The Customer Liaisons in Sausalito proved to be extremely valuable in helping Muir Woods Shuttle passengers find their way to the Shuttle stop, which had been a prevailing issue in previous seasons. The Liaisons were also able to provide information on alternate transportation options in the event of overcrowding or delays.

In Sausalito, the Customer Liaison's shift started at 10:00 am and ended at 4:00 pm.

Table 1: Summary of Operations, 2010–2014

	2010	2011	2012	2013	2014
Season Start	May 1	May 7	May 5	May 4	March 29
Season End	September 26	September 25	October 28	October 27	October 26
Avg. Frequency (Shoulder/Peak)	30 min/20 min	30 min/20 min	30 min/15 min	20 min/10 min	20 min/10 min
Service Hours ⁽¹⁾	2,115	2,108	2,623	3,038	3,591
Standard Fare (adult round-trip)	\$3.00	\$3.00	\$3.00	\$5.00	\$5.00
Farebox Recovery	12.9%	17.9%	19.3%	35.8%	48.4%

Notes:

⁽¹⁾ Actual operated hours, which may differ from planned hours due to canceled or added service.

Marketing

Marketing the Shuttle service has primarily been focused on visitors to the Bay Area, with an emphasis on travelers based in San Francisco. Information on the Shuttle was distributed mostly through visitor information centers, online, and on signs near the highway exits.

Schedule brochures were available through hotel concierges, as well as through visitor centers. These include the Sausalito Visitor's Center, the Marin County Convention Center and Visitor's Bureau, and the San Francisco Ferry Building. Schedules and signs were also posted at the stops, including the Sausalito Ferry Terminal. Finally, information was provided to customers online and over the phone by both Marin Transit and National Park Service staff, and visitors were able to plan their trips in advance using Google Transit and 511.

The most effective means of advertising the Muir Woods Shuttle remains the changeable message signs (CMS). Two permanent CMS and two additional leased signs were installed along Highway 101 to alert motorists about parking conditions at Muir Woods, directing them to the Pohono Park & Ride Lot exit. Blue road signs installed closer to the exit guide drivers further along the off-ramp and into the parking lot.

While more than half of passenger survey respondents over the years have indicated that they found out about the Shuttle through the CMS,

the number of passengers initially finding information about the Shuttle online through both web searches and transit trip planners has continued to increase.

Evaluation Methodology

Due to the off-board fare collection process, the Conservancy provided data on Shuttle ridership and fare revenues through a combination of farebox and weekly fare collection reports. Data on park visitation levels was also provided by Conservancy staff. Marin Transit staff compiled financial numbers and service hour information.

Qualitative observations of the service were provided by the Customer Liaisons, MV Transportation operations staff, and Marin Transit staff. Observations include commentary on ontime performance, weather conditions, fare collection, passengers having to wait for the next bus due to limited capacity, service strengths and weaknesses, and comments on other ways to improve service.

Passenger surveys have been conducted over the past five seasons. The survey results provide important insight into customers' experiences and motivations for using the service. Staff use the results to target areas in need of improvement and to identify ways to better promote the service.

This evaluation report provides an overview of trends and changes over time and makes recommendations for the Shuttle's future.

Ridership and Productivity

This section summarizes the number of passengers the Muir Woods Shuttle carried in 2014; the productivity of the service, measured in passengers per revenue hour; and the percentage of total visitors to Muir Woods who chose to use the Shuttle. These figures are also compared with previous years.

Ridership

Ridership is measured as one-way, unlinked passenger trips. Approximately 102,950 one-way passenger trips were made on the Muir Woods Shuttle during the 2014 season, representing a 33% increase in ridership compared to 2013.

Table 2 shows total ridership trends over the past four seasons, by month. Generally, ridership has

continued to climb over past years. Contrary to previous years, August 2014 had the highest total monthly ridership and had the most significant growth compared to last year. This is partially due to more service days in August compared to previous years. Ridership in May and October showed significant growth. The October increase can be largely attributed to the government shutdown, which occurred in the previous year.

Figure 3 shows ridership by day for the 2014 season. On the Saturday following the July 4th holiday, the Shuttle hit a record high daily ridership level of 3,214 trips. There were also 18 additional days this season where daily ridership surpassed 2,000 unlinked trips.

Table 2: Shuttle Ridership by Month, 2011 – 2014 (unlinked passenger trips)

Month	2011	2012	2013	2014	% Change 2013–2014
March	-	_	-	1,646	_
April	-	_	_	10,866	_
May	6,443	8,756	11,626	13,820	18.9%
June	8,305	12,429	15,754	15,740	-0.1%
July	14,166	13,756	18,906	19,700	4.2%
August	9,924	10,668	15,732	21,532	36.9%
September	8,734	6,860	12,290	11,760	-4.3%
October	_	1,685	3,178	7,886	148.1%
Total	47,572	54,154	77,486	102,950	32.9%

Figure 2: Shuttle Ridership by Month, 2011 – 2014 (unlinked passenger trips)

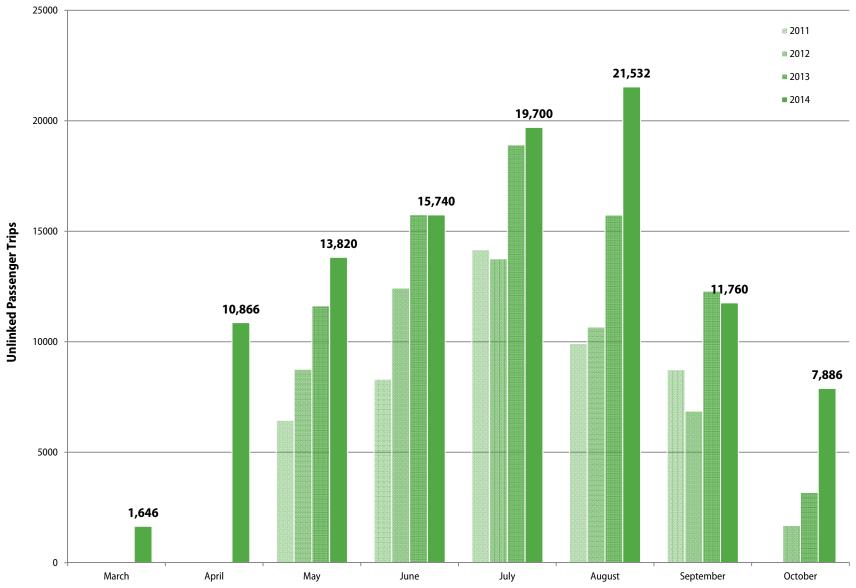


Figure 3: Daily Ridership, 2013 (unlinked passenger trips) 3,500 3,000 2,500 **Unlinked Passenger Trips** 2,000 1,500 1,000 500

_ 29-Jun

2-Jul

12-Jul

19-Jul

16-Aug ⁻ 23-Aug 30-Aug ⁻

1-Sep 7-Sep 14-Sep 21-Sep

2-Aug 9-Aug

26-Jul

12-Apr

19-Apr

26-Apr

5-Apr

10-May _ 17-May 24-May _ 26-May _ 1-Jun 8-Jun 15-Jun 22-Jun

3-May

29-Mar

5-0ct 12-0ct 19-0ct

28-Sep

26-0ct

Productivity

Service productivity is measured in passengers per revenue hour or per trip. Service for the 2014 season averaged 28.7 passengers per hour, or about 19.0 passengers per trip. Table 3 below shows productivity measures by month, compared to the 2013 season.

Overall, productivity measured in both passengers per hour and passengers per trip increased over the previous season. While the planned number of service hours for the 2014 season were comparable to those run in 2013, additional service was added throughout the season when needed. However the increase in ridership outpaced any service additions, resulting in an increase in passengers per hour of 12.4% and in passengers per trip of 18.2%.

Mode Share

Another important indicator of the success of the Shuttle service is the mode share - or the percentage of total park visitors who choose to take the Shuttle. During the days that the Shuttle was in service, there were a total of 284,141 visitors to Muir Woods. During the 2014 Shuttle season, 51,475 individual visitors chose to ride the Shuttle¹. This represents an 18.1% average mode share, relatively consistent with the previous season.

Figure 4 shows percentage mode share of the Shuttle by day. On some of the busiest days, the Shuttle carried up to 25% of all park visitors.

The CMS in particular had a significant effect on the Shuttle's mode share. On days when the CMS were not functioning properly, mode share tended to drop to around 10%. This is especially notable during the peak season. For example, on May 11, July 4, and October 18 Shuttle ridership and mode share dropped while total park visitation levels remained high.

On-Time Performance

In previous seasons, on-time performance has been measured based on daily monitoring reports completed by the Customer Liaisons at the Pohono Park & Ride Lot. Since the role of the Liaisons shifted and service was running at high frequencies, on-time performance was not evaluated as part of this report.

Pass-Ups

Passenger pass-ups continued to occur during peak periods when passenger demand exceeded bus capacity, which is restricted to 37 seated passengers. Standees are not permitted due to the steep and winding nature of the roadway. Despite the high frequency of service at Pohono, the irregularity of passenger arrivals coupled with the concentrations in the midday resulted in lines and wait times for passengers. Compared to previous years, the lines tended to dissipate much more quickly with shorter passenger wait times. This led to fewer people becoming discouraged and deciding to drive to Muir Woods instead.

One noticeable difference this season was a significant increase in demand from Sausalito. While additional service was deployed when possible, pass-ups did occur. Since service on Route 66F ran only once an hour, a pass-up at this location had a much larger impact on the customer experience than at Pohono, where the next bus was usually only 10 minutes away. In case a pass-

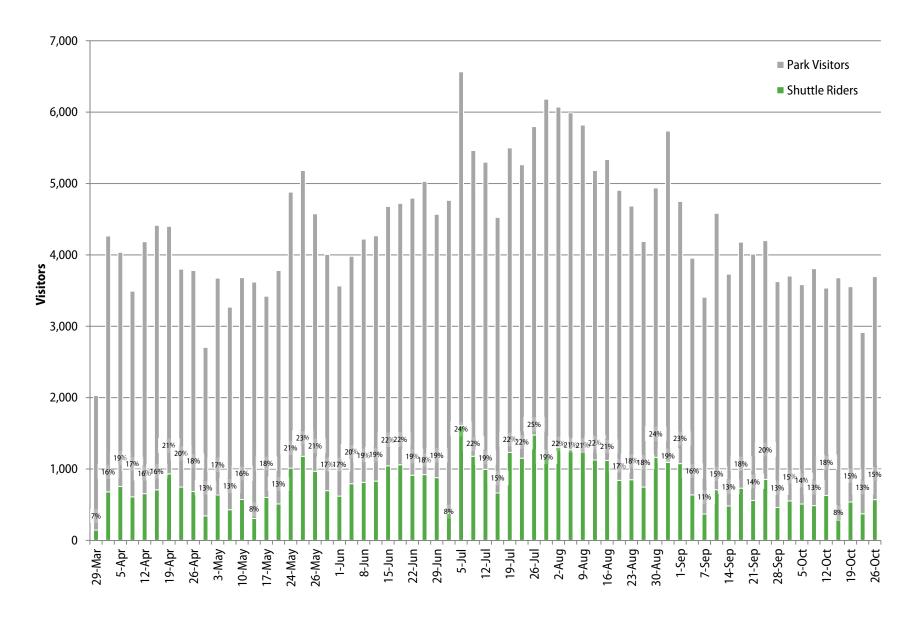
¹ Assumes that each visitor took a round trip

up occurred, the Customer Liaison stationed in Sausalito played a pivotal part in helping customers find alternate options, including taking Stagecoach Route 61 or another local Marin Transit route to transfer to the Muir Woods Shuttle at Pohono.

Table 3: Shuttle Productivity, 2013 – 2014

Month	Passengers per Trip			Passengers per Hour		
Month	2013	2014	% Change	2013	2014	% Change
May	15.8	17.9	13.3%	23.2	27.2	17.1%
June	14.5	16.8	16.1%	23.8	26.1	9.5%
July	19.1	20.7	8.5%	31.3	32.3	3.1%
August	15.9	20.1	26.6%	26.3	31.0	17.9%
September	16.2	18.3	13.3%	23.2	25.9	11.6%
October	12.0	17.8	47.9%	22.2	25.6	15.6%
Total	16.1	19.0	18.2%	25.5	28.7	12.4%

Figure 4: Daily Shuttle Mode Share, 2014



Service Cost and Farebox Recovery

The total service cost for the 2014 season was \$424,664, approximately 1.8% higher than last year. This includes operating, administration, vehicle lease, and marketing costs. Table 4 shows a breakdown of the total cost and revenue for the Shuttle compared to the past three seasons, and Table 5 summarizes key cost performance measures. Note that all costs reflected in these tables are total programs costs which are shared 50% with the National Parks Services.

Although service hours were increased by 18%, total cost for the service increased only slightly, as other non-operating costs were reduced. These reductions can be attributed to the use of a National Park Service vehicle as a spare, thus eliminating the need to lease an extra vehicle.

Farebox Recovery

The regular adult fare is \$5.00 per round-trip, consistent with an adult day pass, while youth under 16, seniors with a Lifetime Pass, and disabled individuals with an Access Pass are all allowed to ride the Shuttle for free.

As shown in Table 4, a total of \$205,533 was collected in fares during the 2014 season, an increase of about 37.8% over last year, comparable to the increase in ridership. This represents a farebox recovery rate of 48.4%.

Cost per Service Hour

The average cost per service hour for the 2014 season was \$118.25, a 13.9% decrease over the previous season. As mentioned previously, this was primarily due to eliminating the need to lease vehicles.

Cost per Trip

The cost per one-way passenger trip also decreased as ridership increased. The average cost per trip for the 2014 season was \$4.12, about 23.4% lower than the previous year.

Subsidized Cost per Trip

This season, average subsidy reached a record low at \$2.13 per passenger, which also met the District's cost effectiveness target of \$3.00 per passenger. This represented a 38.4% reduction in subsidy over the previous year.

Table 4: Shuttle Service Costs, 2011 – 2014

	2011	2012	2013	2014	% Change 2013–2014
Operating Costs	\$245,337	\$166,512	\$294,437	\$298,086	1.2%
Vehicle Lease	\$63,378	\$90,853	\$20,988	_	_
Marketing	\$7,460	\$25,194	\$13,179	\$27,646	109.8%
Maintenance & Equipment	\$2,690	\$14,051	\$30,749	\$38,125	24.0%
Customer Liaisons	\$8,522	\$9,047	\$6,503	\$3,346	-48.5%
Changeable Message Signs	\$20,330	\$20,520	\$14,402	\$12,369	-14.1%
Marin Transit Admin Costs	\$19,218	\$70,134	\$22,390	\$25,123	12.2%
Fare Collection ⁽¹⁾	-	_	\$14,450	\$19,969	38.2%
Subtotal	\$366,934	\$396,310	\$417,097	\$424,664	1.8%
Farebox Revenue	\$65,802	\$76,681	\$149,140	\$205,533	37.8%
Net Total Cost	\$301,133	\$319,629	\$267,957	\$219,131	-18.2%

Notes:

Table 5: Shuttle Cost Effectiveness Measures, 2011 – 2014

	2011	2012	2013	2014	% Change 2013–2014
Farebox Recovery	17.9%	19.3%	35.8%	48.4%	35.4%
Cost per Service Hour	\$174.07	\$151.09	\$137.29	\$118.25	-13.9%
Cost per Trip	\$7.71	\$7.32	\$5.38	\$4.12	-23.4%
Subsidy per Passenger	\$6.33	\$5.90	\$3.46	\$2.13	-38.4%

⁽¹⁾ As part of the fare collection process implemented in 2013, a 10% administrative fee based on total ticket sales is included to cover the costs of fare collection services provided by the Golden Gate National Parks Conservancy.

Passenger Survey

From July through September of the 2014 season, surveys were distributed to passengers upon boarding the Shuttle. The survey for this season was similar to the version from the previous year. Some adjustments were made to the response options for Question 7, which asked customers to indicate how they had heard about the service, in order to reflect the increasing number of online information sources and a shift in marketing approaches for this season.

It should be noted that the distribution of the survey this year began a few weeks earlier than last year, which means more responses were captured from passengers using the Shuttle during peak times.

The Customer Liaisons were responsible for distributing surveys to Shuttle passengers at the Pohono Park & Ride Lot, and drivers handed out surveys to passengers boarding in Sausalito and Marin City. Passengers could either mail back the survey using a prepaid postage frank or hand the completed survey to a driver, a Customer Liaison, or Muir Woods Visitor Center staff.

A total of 280 responses were collected. Some of the highlights are described the following sections. A complete summary of responses is included in Appendix B.

Mode Choice

Figure 5 shows the responses to Question 1, which asked passengers why they chose to use the Shuttle that day.

As in previous years, most passengers (33%) indicated that they chose to take the Shuttle because parking at Muir Woods was full, suggesting that these passengers would probably have driven if they had not seen the changeable message signs on the highway. The second most common reason was to avoid looking for parking. Among those respondents boarding the Shuttle in Sausalito, avoiding traffic and parking were the two most common motivators to taking the Shuttle, followed by saving money and having no other option.

Access Mode

Figure 6 shows the responses to Question 4, which asked passengers how they accessed the Shuttle.

Whereas the majority of respondents (74%) indicated that they drove in either a personal or rental car, a larger percentage of passengers (20%) said they took a bus or ferry to connect to the Shuttle compared to last year. This is consistent with the increase in ridership seen on Route 66F with more passengers boarding the Shuttle in Sausalito or Marin City.

Wait Time

Since Customer Liaisons were not responsible for monitoring passenger lines, a question was included in the survey to give a sense of average wait times at Pohono. As shown in Figure 7, about 80% of survey respondents said they waited at Pohono for 20 minutes or less, and only about 6% waited more than 30 minutes. No one indicated having to wait more than an hour.

While last season's results indicated shorter wait times overall, it should be noted that this year's survey captured more passengers during the busiest part of the season, including July and August.

Customer Satisfaction

A number of questions were included in the survey relating to customer experience and satisfaction.

Service Delivery

In terms of service frequency and on-time performance, passengers rated the service slightly lower compared to last year, as shown in Figure 8 and Figure 9.

On-time performance was rated good or excellent by 84% of passengers, compared to 95% in 2013. Of those rating on-time performance as poor or very poor, the majority boarded the Shuttle in either Sausalito or Marin City. Since schedules are not published for the service to Pohono, which ran every 10 minutes during the peak, passenger perception of on-time performance becomes more focused on consistent headways or frequencies (i.e., a bus comes in 10 minutes or less).

Service frequency was rated as good or excellent by 76% of survey respondents, compared to 91%

in 2013. As with on-time performance, the majority of passengers who rated service frequency as poor or very poor boarded the Shuttle in Sausalito or Marin City.

Bus Stops

The ease of finding bus stops was rated about the same this year compared to 2013, with 87% rating it as good or excellent (Figure 10). Those boarding in Sausalito tended to have most difficulty in finding the stop.

Amenities and comfort at the bus stops was rated the lowest overall, with 62% of respondents rating this aspect as good or excellent, as shown in Figure 11. Those boarding in Sausalito also tended to rate the amenities and comfort at the stop lower than at the other locations. Recommendations on ways to address this particular issue are included in a later section of the report.

Fare Payment

Ease of fare payment was rated higher this season compared to 2013. As shown in Figure 12, this aspect was rated as good or excellent by 92% of passengers.

Shuttle Marketing

Similar to previous years, most passengers found out about the Shuttle only once they had seen the changeable message signs alerting them that the parking lot at Muir Woods is full. However, a significant percentage (27%) indicated that they found out about the Shuttle online or thorough a trip planner, such as Google, as shown in Figure 13.

Of the riders who boarded in Sausalito, the majority (42%) learned about the Shuttle online or through a trip planner.

During the Muir Woods Shuttle season, Marin Transit webpage hits to the Shuttle schedule page generally comprise about 20% of total website hits.

On days when the service was running, this percentage increased to up to 34% of website views.

Figure 5: Survey Question 1 – Why did you choose to use the Muir Woods Shuttle today?

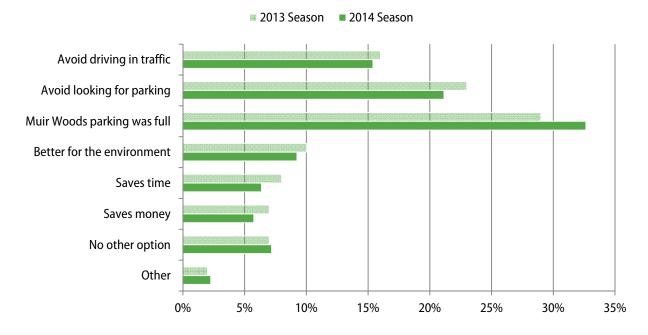


Figure 6: Survey Question 4 – How did you get to the Muir Woods Shuttle?

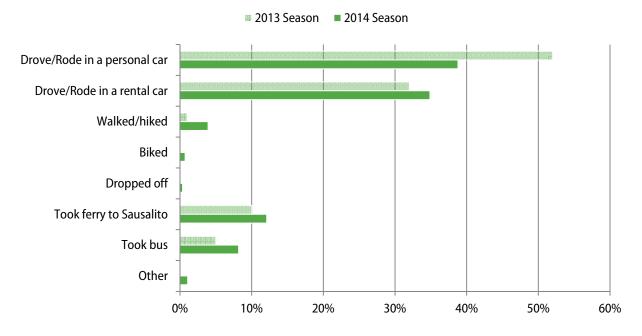


Figure 7: Survey Question 3 – If you got on at Pohono, how long did you wait before you were able to board the Shuttle?

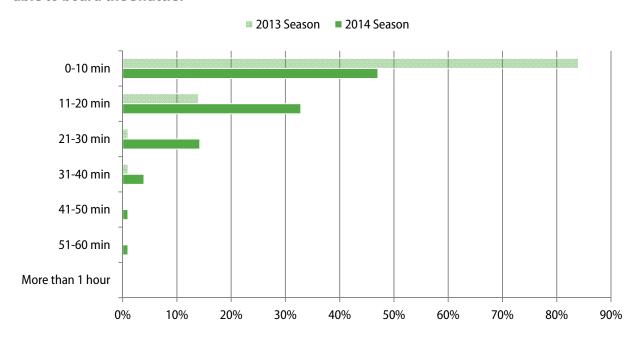


Figure 8: Survey Question 6a - On-Time Performance

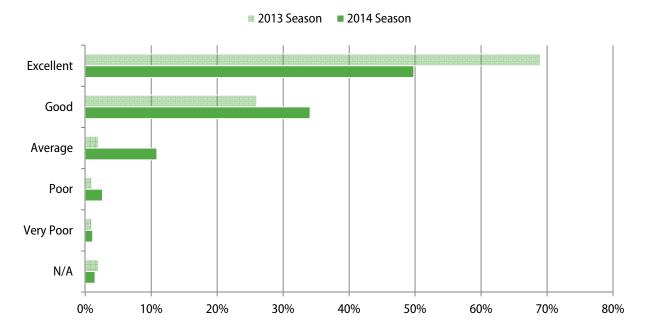


Figure 9: Survey Question 6b – Frequency of Service

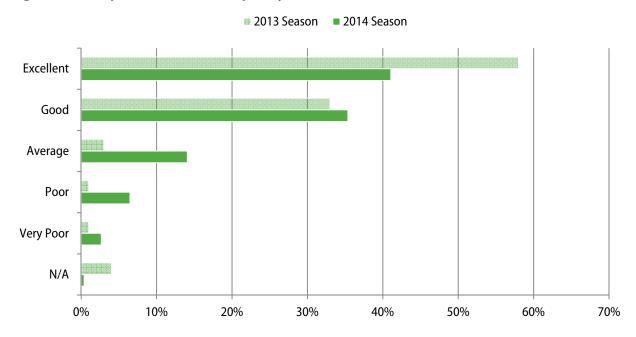


Figure 10: Survey Question 6c – Ease of Finding Bus Stops

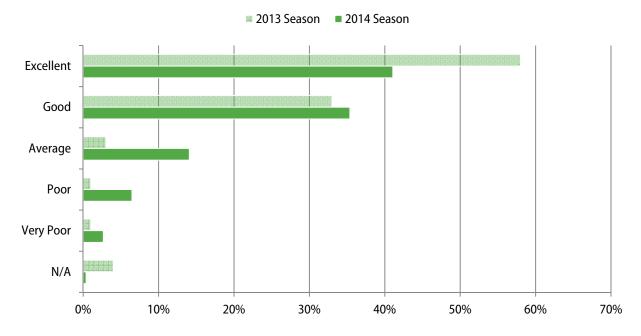


Figure 11: Survey Question 6g – Amenities/Comfort at Bus Stops

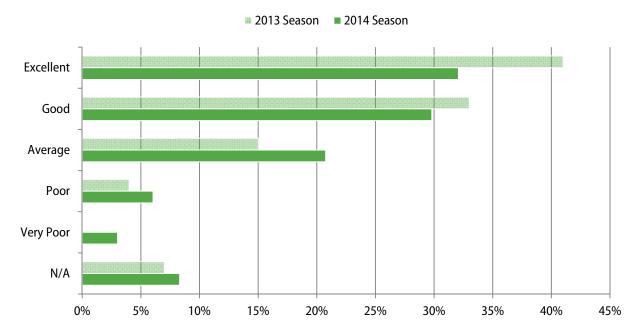


Figure 12: Survey Question 6h – Ease of Fare Payment

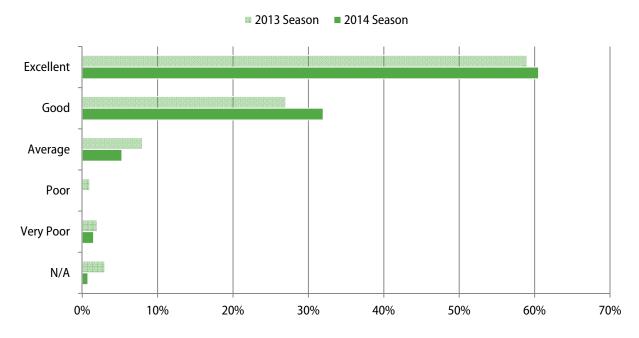
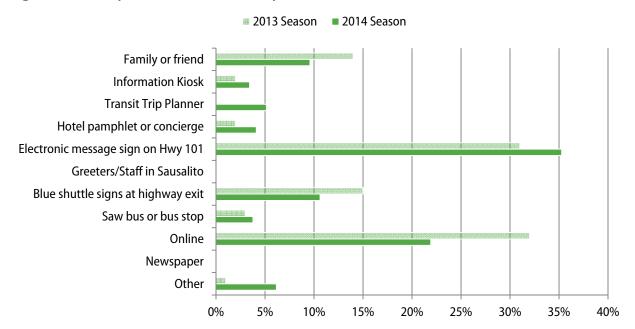


Figure 13: Survey Question 7 – How did you learn about the Shuttle?



Conclusions and Recommendations

The Muir Woods Shuttle has continued to play an increasing role in reducing congestion and providing a viable alternative transportation option to the park. As park visitation levels increase, mitigating traffic and parking congestion becomes even more important.

There are still opportunities to make the Shuttle a more competitive option, although the District made a number of improvements to address longstanding issues and further attract additional Shuttle riders.

Changeable Message Signs

The changeable message signs (CMS) along the highway continue to be one of the most effective ways of advertising the Shuttle and, in particular, shifting visitors from driving to taking transit. Two permanent CMS were installed during the 2013 season, which reduced the number of signs leased from a private vendor from two to four.

Issues with both the permanent and leased signs continued to occur throughout the season. However, there were less problems with the signs turning on in the morning, and more with the signs not turning off in the afternoon. While this had less of an impact on ridership, it did lead to confusion among those heading to Muir Woods when the Shuttle was not operating.

Construction to install a third permanent CMS is expected to be completed by the start of the 2015 season. This sign will be located along northbound Hwy 101 just before the Shoreline Highway exit.

Funding for a fourth permanent sign, located along southbound Hwy 101 before the Shoreline Highway exit has been lined up, This sign is expected to be operational for the 2016 season.

Bus Stop Amenities

Although average wait times have been reduced due to increased service frequency, additional passenger amenities at the bus stops would help to improve the overall visitor experience. Increased visibility would help passengers find the Shuttle stops and further market the service, especially at the Pohono Park & Ride Lot...

Marin Transit is working to improve the Pohono Park & Ride Lot for Muir Woods Shuttle usage in partnership with the County of Marin and Basin Street Properties (owners of the Shoreline Office complex). This includes establishing a passenger waiting area, additional seating, and signage to improve visibility and passenger information as well as sidewalk and accessibility improvements. Marin Transit has funding through a federal Paul Sarbanes Transit in the Parks grant for these improvements.

Days of Service

Despite high service frequency, long lines and passengers pass-ups occurred when limited vehicle capacity require a passenger to wait through multiple bus arrivals before boarding. This can be attributed to two external factors—traffic congestion and the unpredictable arrival of passengers. Pass-ups occurred during very concentrated peak periods - usually when a combination of heavy traffic causing delays and a number of large groups arrived to the stop at the same time.

Significant resources will be required to accommodate this concentrated peak demand period, including additional equipment and drivers. Adding more service capacity during this time would not be a practical or cost effective solution, as these extra resources would only be needed during a relatively short period. However, there could be opportunities to expand the number of days of service and encourage more visitors to come on weekdays, during off-peak times of the day, or during the current shuttle offseason.

The Shuttle has continued to operate on weekends and holidays only, but the length of the season has expanded into both earlier and later months. The 2014 season began about a month earlier than previous seasons, and productivity levels were on par with even the busiest months. As was done last year, additional service will be provided during select off-season holiday periods. These include service around Thanksgiving, Christmas, and New Year's Day.

Future opportunities to provide service to Muir Woods during peak-season weekdays should also be explored. Visitation levels on summer weekdays have been growing and are comparable to some of the busiest weekends of the regular season. This could include running a variation of the current Shuttle service on select weekdays or providing service through a modified Stagecoach program.

NPS has also proposed a reservation system to manage visitation levels as well as parking demand. By balancing out the peaks and making arrival patterns more predictable, the reservation system could help alleviate capacity issues on the Shuttle. Also, by having visitors plan and reserve their trip in advance, visitors will be aware of the Shuttle as an option for getting to the park before starting their trip.

Staffing

The Customer Liaisons have continued to be an invaluable resource to passengers. While a fulltime operations supervisor is stationed at the Pohono Park & Ride Lot, the Liaisons are the ones primarily responsible for providing information to customers and answering questions. This allows the supervisor to focus on operations and attend to any issues as needed.

This season an additional Customer Liaison was stationed near the Sausalito Ferry. While this Liaison was primarily responsible for promoting a new Stagecoach service to Fort Baker, having staff present in Sausalito proved to be extremely valuable in helping passengers find the Muir Woods Shuttle bus stop.

A full-time supervisor was stationed up at Muir Woods to facilitate vehicle circulation and check for proof of payment. This supervisor also helped to ensure that passengers boarded the correct bus on their return trip (i.e., to Sausalito or Pohono).

Staff recommends that these staffing levels are maintained in future seasons to ensure operational efficiency and a quality passenger experience.

Appendix A

Route Brochure

Visitor Brochure



Shuttle Information

Round-trip fares are collected at the Muir Woods Visitor Center, and your receipt must be shown upon boarding as proof of payment on your return trip from Muir Woods. Fares may be paid at the Visitor Center using cash or most major credit cards along with your park entrance fee. Retain your receipt to present to the driver on your return trip.

Round-Trip Fares

Adults (ages 16+) Youth (ages 15 and under) Free

Marin Transit Passes and Value Cards are also accepted. Clipper is not accepted on the Muir Woods Shuttle.

No one-way fares are available. Passengers wishing to ride one-way must pay the full round-trip fare.

Vehicles

Due to safety considerations, standees will not be carried on the Muir Woods Shuttle. Arrive at the bus stop early to ensure a seat on the bus.

All vehicles can accommodate wheelchairs.

Smoking, eating, and drinking are NOT permitted aboard buses. California State Law prohibits alcoholic beverages aboard public transit buses. Refreshments are available

Stagecoach Route 61

West Marin Stagecoach Route 61 provides year-round access to many additional hiking trailheads and recreational areas in West Marin, including Pantoll Ranger Station, Bootjack, Mountain Home Inn, and Stinson Beach (see map on reverse).

Service is provided from Marin City (daily) and Sausalito (weekends & holidays). For schedules and more information, visit www.marintransit.org.



Additional Information

SHUTTLE INFORMATION

Muir Woods Shuttle daily office hours 8:00 am - 5:00 shuttle information, lost & found

(415) 526-3239

visit www.marintransit.org

SPONSORSHIP OF SERVICE

Muir Woods Shuttle Route 66 is funded by Marin Transit and the National Park Service, and operated under a service agreement between Marin Transit and MY Transportation, Inc.













COMMENTS info@marintransit.org www.marintransit.org/contact.html

scan OR code for schedules or visit





information subject to change



ON YOUR WAY

The Shuttle ride to Muir Woods will take approximately 35 minutes from Pohono and 50 minutes from Sausalito, depending on traffic conditions. Here are a few things to look for on your way to Muir Woods...

Richardson Bay

Home to the Richardson Bay Audubon Center & Sanctuary, this ecologicallyrich arm of San Francisco Bay is one of the most pristine estuaries on the Pacific Coast, supporting extensive eelgrass areas and intertidal habitats.

Green Gulch Farm Zen Center

Green Gulch Farm Zen Center, also known as Green Dragon Temple (Soryu-ji), is a Buddhist practice center in the Japanese Soto Zen tradition offering training in Zen meditation and ordinary work.

Redwood Creek

Redwood Creek is home to some of California's last remaining native run of Coho Salmon and Steelhead Trout. Each year, after the first heavy winter rains, the adult fish return from the Pacific Ocean to spawn.

Muir Beach

Three miles west of Muir Woods along the coastline, this quiet cove, beach and lagoon are home to numerous shtorebirds, amphibians, salmon and trout, and marshy, water-loving plants called rushes (Juncus).

Golden Gate Dairy/Stables

Located on the Southern Marin Coast, the preservation of this historic dairy shares the richness of horses, wildlife, and the land with visitors.

PLANNING YOUR VISIT

Trails

Muir Woods National Monument contains 6 miles of trails. There is a ½ hour loop, a 1 hour loop, and a 1 ½ hour loop, as well as longer hikes on trails that extend into surrounding Mount Tamalpais State Park. All of these walks afford views of old growth coast redwoods, the tallest living things in the world.

Many trails to and from Muir Woods connect with Mount Tamalpais State Park trails. If you are planning to exit the monument via a state park trail, it is recommended that you purchase A Muir Woods National Park Map for \$1. Ask the Visitor Center for more information.

Daily Programs

Rangers and volunteers present 15-minute talks and guided one-hour tours when staffing permits. Check the program board at the park entrance for times and locations of talks and tours. No reservations necessary.

Self-Guided Tours

Muir Woods offers two self-guided programs, the Nature Trail and the Historic Walking Tour, that may be purchased for \$1 each at the Visitor Center or the self-serve map box at Bridge 2.

Junior Ranger Program (ages 8-12) Allow 1-2 hours for completion

Learn what park rangers do to help protect Muir Woods. As a Junior Ranger, you'll care for our national parks, teach others what you learn, and discover new ways to experience your environment. Pick up a free copy at the Visitor Center.

2014 Shuttle Schedule

POHONO STREET 66 PARK&RIDE

March 29 - May 18

to Muir Woods: 9:05 am - 5:05 pm from Muir Woods: 11:00 am - 7:20 pm



May 24 - September 1

to Muir Woods: 9:05 am - 5:05 pm from Muir Woods: 11:00 am - 7:20 pm



September 6 - September 20

to Muir Woods: 9:05 am - 5:05 pm 11:00 am - 7:20 pm from Muir Woods:



September 21 – October 11

to Muir Woods: 9:05 am - 4:45 pm 11:00 am - 6:20 pm from Muir Woods:



October 12 - October 26

to Muir Woods: 9:05 am - 3:45 pm from Muir Woods: 11:00 am - 5:20 pm



SAUSALITO FERRY TERMINAL/ MARIN CITY TRANSIT HUB

March 29 - October 11

to Muir Woods: 11:00 am - 3:00 pm from Muir Woods: 12:50 am - 5:50 pm



October 12 - October 26

to Muir Woods: 11:00 am - 3:00 pm from Muir Woods: 12:50 am - 4:50 pm



It takes approximately 35 minutes to reach Muir Woods from the Pohono Street Park & Ride, and 50 minutes from the Sausalito Ferry Terminal.

Additional Information



ADDITIONAL SHUTTLE INFORMATION

Muir Woods Shuttle

daily office hours 8:00am - 5:00pm shuttle information, lost & found

visit www.marintransit.org

SPONSORSHIP OF SERVICE

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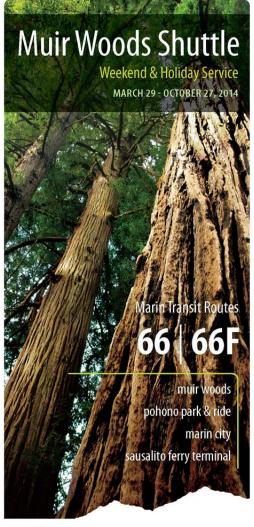






(415) 526-3239







COMMENTS

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scan QR code for schedules or visit www.marintransit.org/mws





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MARIN CITY TRANSIT HUB Donahue & Terners



SAUSALITO FERRYTERMINAL Bay & Bridgeway



from San Francisco

- Exit 445 B towards Hwy 1 Mill Valley/Stinson Beach
- Take first right onto Pohono St.

from San Rafael & Sonoma

- Exit 445 B towards Hwy 1 Mill Valley/Stinson Beach
- Turn right to continue on Hwy 1 North
- Turn right at signal towards Hwy 101 North
- Turn left onto Pohono St. after freeway overpass

from San Francisco

Board Golden Gate Transit Routes 10, 70, or 80

along Mission/Van Ness/Lombard or at Bridge Toll Plaza

Transfer to the Muir Woods Shuttle at the Marin City Transit Hub

from San Rafael

Board Marin Transit Route 71 or Golden Gate Transit Routes 70 or 80 at the Transit Center or along Hwy 101

Transfer to the Muir Woods Shuttle at the Marin City Transit Hub

from San Francisco Ferry Terminal

Board the Sausalito Ferry (Golden Gate Ferry Service)

Transfer to the Muir Woods Shuttle at Bay Street, a 5-minute walk from the Sausalito Ferry Terminal Building

from San Francisco, Pier 41

Board the Sausalito Ferry (Blue & Gold Fleet Ferry Service)

Transfer to the Muir Woods Shuttle at Bay Street, a 5-minute walk from the Sausalito Ferry Terminal Building

Things to Know

Shuttle operates weekends & holidays only.

Service runs Saturdays and Sundays, as well as on Memorial Day, 4th of July, and Labor Day.

Fares are Round-Trip.

Adults (ages 16+) \$5 Youth (ages 15 and under) Free

Transfers are easy.

If transferring to or from Marin Transit, West Marin Stagecoach, or a Golden Gate Transit route; purchase a Day Pass upon boarding. The Day Pass can then be used to pay your round-trip fare for the Muir Woods Shuttle.

All buses accommodate wheelchairs.

On a bike?

Bikes are not allowed in Muir Woods.

Lock your bike up at the Pohono Park & Ride Lot and near the Sausalito Ferry Terminal and ride the Shuttle.

to Pohono Park & Ride Lot

Take the Mill Valley-Sausalito Path, which starts from Bridgeway & Gate 5 Rd in Sausalito. Or from Tiburon, follow the Bay Trail along the Tiburon Linear Park and through Strawberry. Turn onto Pohono St, which leads directly into the park & ride lot. Bike racks are located at the end of the main lot.

to Sausalito Ferry Terminal

From San Francisco, cross the Golden Gate Bridge to Sausalito (about 4 miles) or take the ferry with your bike (make reservations at the Terminal during peak times). Bike racks are available in bike parking zones in downtown Sausalito.

Appendix B

Passenger Survey & Results

Passeng	ods Sh er S	urvey
Date of Trip:	Time of Trip:	No. in Party:
Why did you choose to use the M		
Avoid driving in traffic Avoid looking for parking Muir Woods parking was ful Better for the environment		Saves time Saves money No other option Other:
 Where did you get on the Shuttle Sausalito Ferry Terminal (skip) Marin City Transit Hub (skip to 	to #4)	Voods? Pohono Street Park and Ride Lot
3. If you got on at Pohono, how lo Shuttle?	ng did you wait	before you were able to board the
	-30 min -40 min	☐ 41-50 min ☐ > 1 hour ☐ 51-60 min
4. How did you get to the Muir Woo	ds Shuttle? (chec	k all that apply)
☐ Drove/Rode in a personal ca ☐ Drove/Rode in a rental car ☐ Walked/hiked ☐ Biked	r	Dropped off Took ferry to Sausalito Took bus route(s): Other:
5. Where did you come from today: Within Marin County San Francisco Sonoma County	•	East Bay Other Bay Area location Other:
6. Please rate the Shuttle service or	each of the follo	owing:
	Excellent Goo	d Average Poor Very Poor N/A
On-time performance		
Frequency of service		
Ease of finding bus stops		
Driver courtesy		
Information/staff at bus stops		
Cleanliness/condition of vehicle		
Amenities/comfort at bus stops		
Ease of fare payment		
		continued on back ———

7.	How did you learn about the Shuttle? Family or friend Information Kiosk Transit Trip Planner (Google Maps, 5) Hotel pamphlet or concierge Electronic message sign on Hwy 101	11)	Blue shuttle signs at highway exit Saw bus or bus stop Online specify: Newspaper specify: Other:
8.	What improvements would make the	Shuttle more cor	nvenient?
9.	Other comments on transportation to	Muir Woods:	
	ATIONAL PARK PARK PARK PARK PARK PARK PARK PARK	surveys to you Woods Visitor	ling! Please hand completed r bus operator, drop off at the Muir Center, or submit to: Marin Transit, s, Ste 110, San Rafael, CA 94901
			FIRST CLASS MAIL U.S. POSTAGE PAID COUNTY OF MARIN
ſ	BUSINESS	REPLY	MAIL

FIRST-CLASS MAIL PERMIT NO. 171 SAN RAFAEL, CA

MARIN TRANSIT

711 Grand Avenue, Suite 110 San Rafael CA 94901-3511

Q1. Why did you choose to use the Muir Woods Shuttle today?

	2014 # responses	2014 % of responses	2013 % of responses
Avoid driving in traffic	75	15%	16%
Avoid looking for parking	103	21%	23%
Muir Woods parking was full	159	33%	29%
Better for the environment	45	9%	10%
Saves time	31	6%	8%
Saves money	28	6%	7%
No other option	35	7%	7%
Other	11	2%	2%
Total	487	100%	102%

O2. Where did you get on the Shuttle going to Muir Woods?

	2014 # responses	2014 % of responses	2013 % of responses
Sausalito Ferry Terminal	62	23%	15%
Marin City Transit Hub	16	6%	4%
Pohono Street Park and Ride Lot	193	71%	81%
Total	271	100%	100%

Q3. If you got on at Pohono, how long did you wait before you were able to board the Shuttle?

	2014 # responses	2014 % of responses	2013 % of responses
0-10 min	96	47%	84%
11-20 min	67	33%	14%
21-30 min	29	14%	1%
31-40 min	8	4%	1%
41-50 min	2	1%	0%
51-60 min	2	1%	0%
> 1 hour	0	0%	0%
Total	204	100%	100%

Q4. How did you get to the Muir Woods Shuttle?

	2014 # responses	2014 % of responses	2013 % of responses
Drove/Rode in a personal car	109	39%	52%
Drove/Rode in a rental car	98	35%	32%
Walked/hiked	11	4%	1%
Biked	2	1%	0%
Dropped off	1	0%	0%
Took ferry to Sausalito	34	12%	10%
Took bus	23	8%	5%
Other	3	1%	0%
Total	281	100%	100%

Q5. Where did you come from today?

	2014 # responses	2014 % of responses	2013 % of responses
Within Marin County	6	2%	4%
San Francisco	188	70%	37%
Sonoma County	1	0%	2%
East Bay	28	10%	20%
Other Bay Area location	31	12%	23%
Other	13	5%	14%
Total	267	100%	100%

Q6a. Please rate the Shuttle service on each of the following: On-time performance

	2014 # responses	2014 % of responses	2013 % of responses
Excellent	133	50%	69%
Good	91	34%	26%
Average	29	11%	2%
Poor	7	3%	1%
Very Poor	3	1%	1%
N/A	4	1%	2%
Total	267	100%	100%

Q6b. Please rate the Shuttle service on each of the following: Frequency of service

	2014 # responses	2014 % of responses	2013 % of responses
Excellent	108	41%	58%
Good	93	35%	33%
Average	37	14%	3%
Poor	17	6%	1%
Very Poor	7	3%	1%
N/A	1	0%	4%
Total	263	100%	100%

Q6c. Please rate the Shuttle service on each of the following: Ease of finding bus stops

	2014 # responses	2014 % of responses	2013 % of responses
Excellent	145	54%	62%
Good	87	32%	24%
Average	20	7%	9%
Poor	7	3%	3%
Very Poor	5	2%	2%
N/A	4	1%	1%
Total	268	100%	100%

Q6d. Please rate the Shuttle service on each of the following: Driver courtesy

	2014 # responses	2014 % of responses	2013 % of responses
Excellent	201	75%	76%
Good	53	20%	18%
Average	8	3%	6%
Poor	1	0%	0%
Very Poor	0	0%	0%
N/A	4	1%	1%
Total	267	100%	100%

O6e. Please rate the Shuttle service on each of the following: Information/staff at bus stops

	2014 # responses	2014 % of responses	2013 % of responses
Excellent	176	66%	65%
Good	68	25%	27%
Average	13	5%	6%
Poor	2	1%	1%
Very Poor	5	2%	0%
N/A	4	1%	1%
Total	268	100%	100%

Q6f. Please rate the Shuttle service on each of the following: Cleanliness/condition of vehicles

	2014 # responses	2014 % of responses	2013 % of responses
Excellent	189	71%	78%
Good	66	25%	20%
Average	9	3%	2%
Poor	0	0%	0%
Very Poor	0	0%	0%
N/A	1	0%	0%
Total	265	100%	100%

Q6g. Please rate the Shuttle service on each of the following: Amenities/comfort at bus stops

	2014 # responses	2014 % of responses	2013 % of responses
Excellent	85	32%	41%
Good	79	30%	33%
Average	55	21%	15%
Poor	16	6%	4%
Very Poor	8	3%	0%
N/A	22	8%	7%
Total	265	100%	100%

Q6h. Please rate the Shuttle service on each of the following: Ease of fare payment

	2014 # responses	2014 % of responses	2013 % of responses
Excellent	161	61%	59%
Good	85	32%	27%
Average	14	5%	8%
Poor	0	0%	1%
Very Poor	4	2%	2%
N/A	2	1%	3%
Total	266	100%	100%

Q7. How did you learn about the Shuttle?

Q7. How did you reall about the 31	2014 # responses	2014 % of responses	2013 % of responses
Family or friend	28	10%	14%
Information Kiosk	10	3%	2%
Transit Trip Planner	15	5%	_
Hotel pamphlet or concierge	12	4%	2%
Electronic message sign on Hwy 101	103	35%	31%
Greeters/Staff in Sausalito	0	0%	-
Blue shuttle signs at highway exit	31	11%	15%
Saw bus or bus stop	11	4%	3%
Online	64	22%	32%
Newspaper	0	0%	0%
Other	18	6%	1%
Total	292	100%	100%