



Midpeninsula Regional  
Open Space District

# Memorandum

DATE: June 26, 2024

MEMO TO: Board of Directors

THROUGH: Stefan Jaskulak, Acting General Manager

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FROM: Deborah Bazar, Management Analyst II, Visitor Services  
Chief Ranger Matt Anderson, Visitor Services

SUBJECT: Total District Visitation Estimation for Calendar Year 2023

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## SUMMARY

This report summarizes the estimated visitation for the Midpeninsula Regional Open Space District (District) for calendar year 2023 based on the data collected by 26 visitor counters located at selected preserves. The total estimated number of visitors in 2023 is approximately 2,500,000. Historical information about the preceding three years is included for perspective.

## DISCUSSION

In 2019, the Visitor Services Department began a project to estimate total visitation for the District's Open Space Preserves. Because of the large number of preserves and accompanying trail system with multiple access points per preserve, an index system was developed to estimate total visitation across the entirety of District lands.

Preserves are classified into four different categories based on similar use patterns, location, and other factors to allow one Representative Preserve to be selected for each category. To determine the relative ratios between the Representative Preserves and the other preserves in their category, staff referenced a series of visitor estimate survey projects conducted by the Public Affairs Department between 2007 and 2011. In 2019 and 2020, Visitor Services staff conducted further analysis and ground truthing of visitation between preserves resulting in some updated visitation ratios.

In late 2019 and early 2020, two types of counters were strategically deployed at the Representative Preserves:

- Pedestrian Counters: Infrared counters that send an invisible beam across a trail and monitor foot traffic through changes in the heat signature.
- Vehicle Counters: Magnetometers that measure vehicle traffic through changes in the magnetic field. Vehicle occupancy multipliers are applied to these counters to determine the number of *people* in those vehicles.

There are certain preserves that are, for various reasons, not included in the categories mentioned above (Rancho San Antonio, Sierra Azul, Bear Creek Redwoods, and Ravenswood). Visitation counts for those preserves are included in this report but are derived directly from counters installed at those locations. Rancho San Antonio has seven counters collecting data throughout the park/preserve. Numbers for Sierra Azul and Bear Creek are determined from one counter located on Mt. Umunhum Road at gate SA39 and one counter located in the Bear Creek parking lot, respectively. Staff installed additional counters in Sierra Azul in late 2023 to capture visitation for the preserve beyond the Mt Umunhum Road counter, improving the overall visitation count accuracy. Those counters will be reported on in the 2024 calendar year report. Ravenswood counts are represented by a trail counter located at the pedestrian bridge near Bay Road; vehicles using the preserve parking lot and pedestrians walking along Bay Road to visit Cooley Landing Park are not accounted for.

La Honda Creek Open Space Preserve was not part of the original Public Affairs surveys, so a relative ratio for estimating visitation was not available. At the inception of the project, La Honda was only partially open, and the visitation at the time was not considered significant enough to deploy counters, as it was very low compared to the other preserves and overall visitation. Now that the Upper and Lower portions of La Honda are open, staff installed counters at the preserve in late 2023 so that La Honda visitation counts can be included in future reports starting for calendar year 2024.

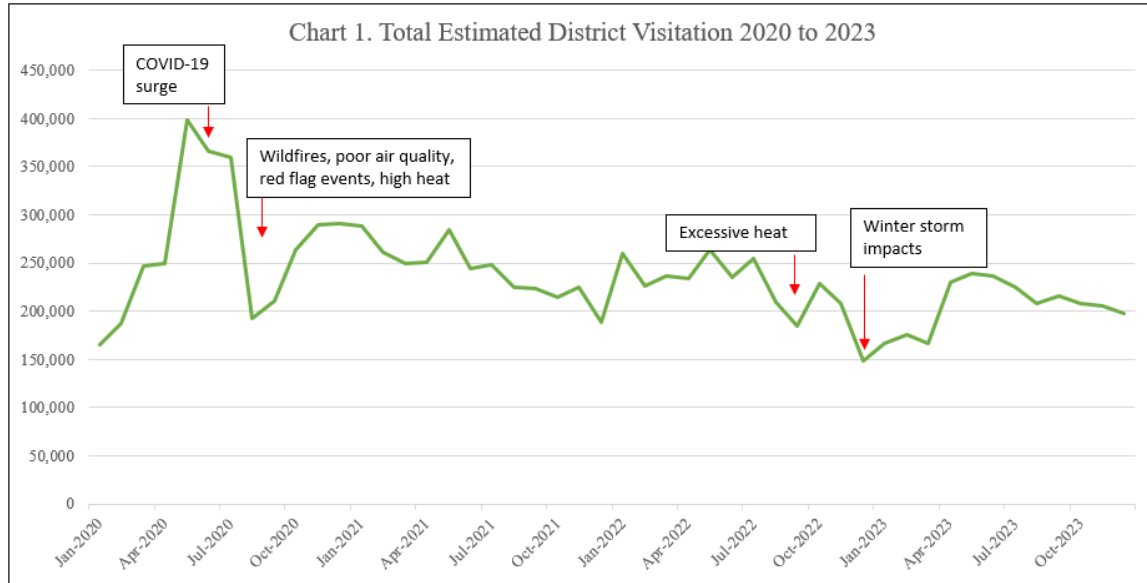
### **Counter Limitations and Correction Methodology**

The counters collect data constantly and aggregate it daily. Both the pedestrian and vehicle counters can be finicky and experience errors or malfunctions that result in very low (or null) counts, or in some cases, extremely high counts. Reasons for these anomalous counts can include vandalism, theft, insects, dead batteries, collection errors, high winds, groups traveling very close together, and many other possible occurrences.

In 2021, Visitor Services staff partnered with the IST Department staff to develop a machine learning (artificial intelligence) system that utilizes historical data, weather data, and pollution data to identify, predict, and correct counter errors. Because artificial intelligence systems improve their predictions as they receive more data, counts are recalculated every time new data is input. Therefore, numbers published in any report may look slightly different than previously published reports. Staff has determined the difference to be negligible, averaging a variance of 0.2%.

Total visitation counts for 2020, 2021, 2022, and 2023 by month and by preserve, with appropriate data corrections, are provided in the charts and tables in the next section.

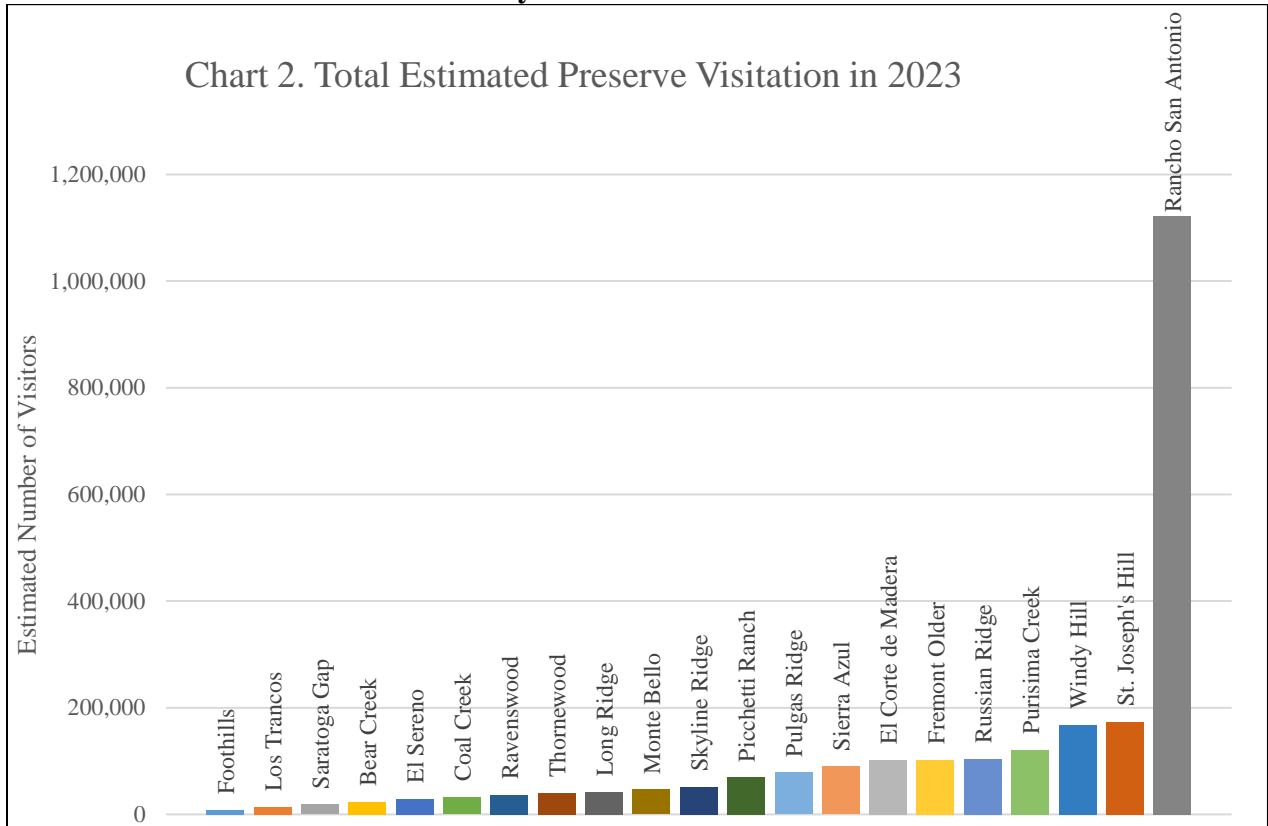
**Chart 1: Total Estimated District Visitation in 2020 through 2023**



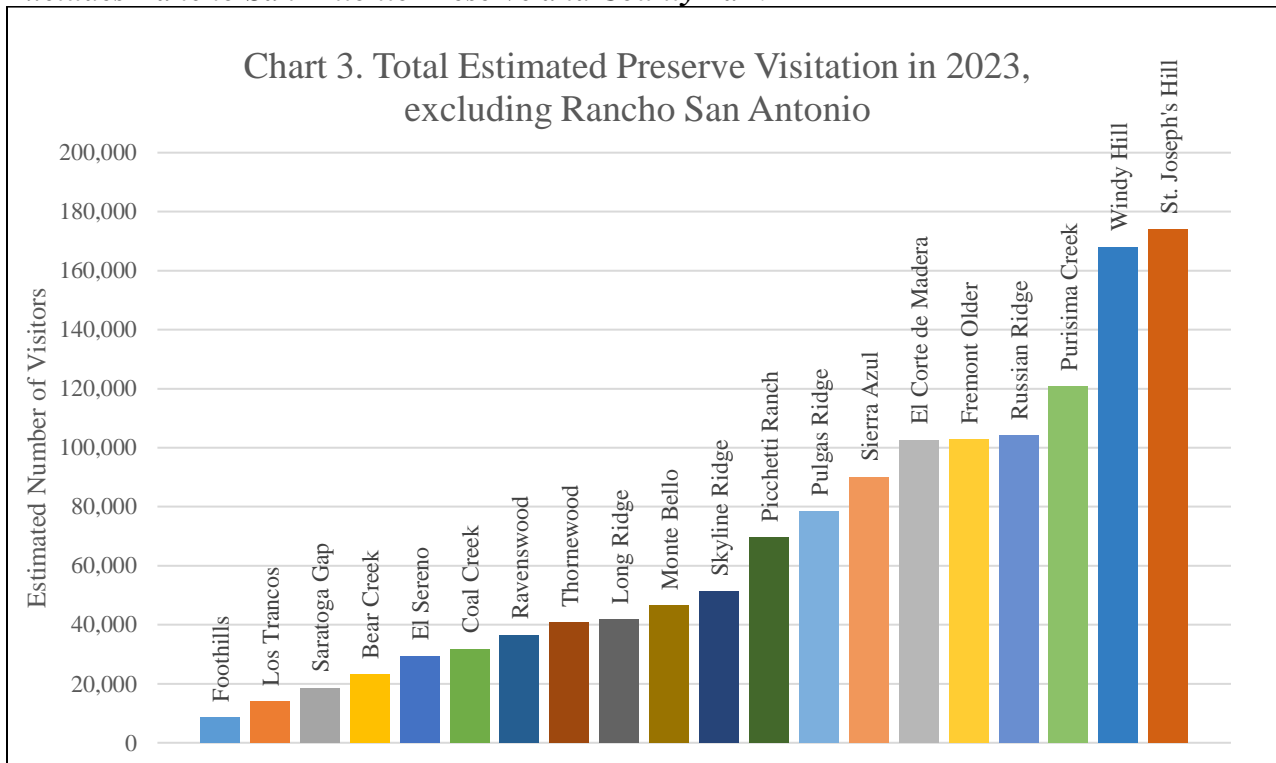
**Table 1: Total Estimated Monthly Visitation in 2020 through 2023**

	2020	2021	2022	2023	% change from 2022
Jan	164,822	288,731	260,478	166,482	-36%
Feb	187,818	261,781	226,592	176,320	-22%
Mar	246,942	249,724	236,775	166,310	-30%
Apr	249,676	250,256	234,513	229,959	-2%
May	398,572	285,107	263,509	238,792	-9%
Jun	366,634	244,117	235,039	236,242	1%
Jul	359,797	248,831	254,286	225,121	-11%
Aug	192,049	225,141	209,457	208,658	0%
Sep	211,132	223,825	184,413	215,805	17%
Oct	264,274	214,576	228,369	207,507	-9%
Nov	289,695	224,915	207,866	205,778	-1%
Dec	291,609	188,537	149,115	197,857	33%
<b>Total</b>	<b>3,223,020</b>	<b>2,905,541</b>	<b>2,690,412</b>	<b>2,474,831</b>	<b>-8%</b>

**Chart 2: Total Estimated Visitation by Preserve in 2023**



**Chart 3: Total Estimated Visitation by Preserve in 2023**  
*Excludes Rancho San Antonio Preserve and County Park*



**Table 2: Total Estimated Visitation by Preserve in 2023**

<b>Preserve</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Bear Creek	63,244	57,606	52,747	23,138
Coal Creek	33,879	37,424	37,193	31,693
El Corte de Madera	156,140	141,824	133,112	102,574
<b>El Sereno*</b>	34,216	34,009	33,794	29,385
Foothills	9,243	10,211	10,138	8,723
Fremont Older	167,127	118,689	102,272	102,687
Long Ridge	61,779	55,637	51,836	41,854
Los Trancos	20,601	18,563	17,290	13,963
<b>Monte Bello*</b>	68,618	61,804	57,577	46,488
Picchetti Ranch	113,302	80,472	69,336	69,611
Pulgas Ridge	113,800	90,522	78,007	78,311
<b>Purisima Creek *</b>	183,695	166,850	156,601	120,683
Rancho San Antonio	1,249,741	1,227,915	1,180,742	1,122,480
Ravenswood	14,060	32,634	30,901	36,484
Russian Ridge	153,704	138,449	128,967	104,133
Saratoga Gap	27,449	24,723	23,029	18,591
Sierra Azul	117,309	96,297	75,880	90,117
Skyline Ridge	75,492	68,006	63,355	51,161
<b>St. Joseph's Hill*</b>	283,267	201,171	173,354	174,033
Thornewood	42,785	47,607	46,134	40,687
Windy Hill	233,569	195,128	168,147	168,035
<b>Total</b>	<b>3,223,020</b>	<b>2,905,541</b>	<b>2,690,412</b>	<b>2,474,831</b>

*\*Preserves with asterisks are Representative Preserves. Category groupings are color-coded.*

### **Discussion of Data**

Visitation during 2023 was impacted by major winter storms in early 2023 that resulted in multiple preserve closures are evident as well; the following preserves were closed intermittently in early 2023: Coal Creek, El Corde de Madera, Foothills, Long Ridge, Los Trancos, Monte Bello, Russian Ridge, Saratoga Gap, Skyline Ridge, Thornewood, and Windy Hill. All of Purisima was closed the latter half of January 2023, and lower Purisima has been closed since March of 2023. Bear Creek was closed from March 2023 to July 2023 due to a road washout. The estimated total number of visitors in 2023 declined 8% compared to 2022 numbers.

Comparisons with previous years is difficult given the surge in visitation during COVID, impacts of COVID closures, and fire and air quality closures. Year 2020 started out with typical visitation during the first few months of the year. However, visitation during the early months of the COVID pandemic (April, May, June) was at unprecedented levels. Later in 2020 (August and September), several preserves were closed due to fires, poor air quality, high heat, and/or red flag events that resulted in a steep reduction in visitation. The number of visitors began to climb again in October 2020 and leveled off until a small surge in April and May 2021. This surge was not unexpected, since this is the time of the mildest weather and usually experiences increased activity. Visitation during the latter half of 2021 slowly declined, with small increases in July and November. Note that in 2021 there were no closures or restrictions to preserve access, as was the case in 2020 and 2022. (Closing preserves for weather, air quality, or fire-related concerns

was very rare pre-2020.) Standard seasonal variations were observed throughout 2022, with the exception of the impact of severe heat conditions evident in September on Chart 1.

### **Conclusions**

Under this project, 2020 was the first year that a reasonable estimation of total visitation across the District was possible, which was a *very* atypical year due to several events. These events include record-breaking high visitation due to the COVID-19 pandemic followed by complete closures of preserves due to fires, heat, and poor air quality. As expected, the visitation in 2021 and 2022 appeared to settle back to more normal levels and patterns, and year 2023 totals reflect an apparent continued move towards normalization despite the multiple preserve closures resulting from the winter storms. A comparison of 2023 with the visitation estimates from the 2010 survey suggests a 64% increase from the numbers reported in the 2010 report. Analyses of trends of historical data from counters installed prior to 2020 show that visitation has been steadily increasing, and is still climbing, despite the 2020 anomalies. There is no one explanation for the increased visitation however it is likely a combination of reasons, including higher profile of the District, post-pandemic continued use, and people reconnecting with nature. Future years of the project will continue to provide information about visitation trends.

### **Operational Impacts**

Parking continues to be the biggest operational impact of increased visitation. Parking capacity is regularly exceeded in many preserves on weekends during nice weather. For the most part, the increased visitation has not had apparent visible impacts on trail and road infrastructure except in the busiest preserves. In general, preserves and trails seem to absorb the increased visitation well, with the primary challenge and limiting factor being parking availability. Additionally, there does not appear to be a direct correlation between increased visitation and District ordinance violations or negative visitor experience. In fact, District ordinance violations were down during 2023 by 22%.

Increased visitation and the resulting parking and traffic issues also affect the District's planning efforts for public access projects. Parking and traffic are often the top concerns raised by members of the public, whether it is the challenge of finding parking or the impact of parking and traffic on neighboring cities and neighborhoods. Public access projects require enhanced public engagement to address these concerns, consider parking constraints, or seek ways to encourage non-vehicular modes of transportation. Two multimodal access projects are currently underway for the most parking-challenged preserves: Rancho San Antonio and Purisima Creek Redwoods. These projects have taken additional staff resources and time to plan for improving existing or developing new parking areas and conduct enhanced public engagement.

### **No Attachments**