



A LOCHNER COMPANY

300 Corporate Pointe, Suite 470, Culver City, CA 90230

T: (310) 473-6508 | F: (310) 444-9771 | www.koacorp.com

MONTEREY PARK ORANGE ONTARIO SAN DIEGO CULVER CITY

TECHNICAL MEMORANDUM

Date: June 19, 2023

To: Los Angeles County Department of Parks and Recreation

From: Daniel Hendricks, T.E. – KOA Corporation, Senior Associate Planner

Subject: Trip Generation/VMT Screening Assessment for the Devil's Punchbowl Nature Center Project, County of Los Angeles

KOA Corporation (KOA) is pleased to submit this technical memorandum to document the trip generation analysis and vehicle-miles-traveled (VMT) screening assessment for the subject project. This report presents the trip generation assumptions and calculations, as well as an evaluation of the project based on the screening criteria outlined in the County of Los Angeles's *Transportation Impact Analysis Guidelines* (July 2020). This evaluation determines whether additional analysis is warranted per these guidelines.

PROJECT DESCRIPTION

The County of Los Angeles (the "County") is preparing environmental documentation for the proposed construction and operation of the subject project. The project is located at 28000 Devil's Punchbowl Road in the unincorporated Valyermo community of the County. The project consists of the construction of a 3,245 square-foot building, which will house the nature center, administrative offices, and gift shop at the Devil's Punchbowl Natural Area. The original structure housing the nature center burned down in the Bobcat Fire in September 2020. The project will serve to reestablish these uses at the project site.

The project will be located at the Devil's Punch Bowl Natural Area located at the terminus of Devil's Punchbowl Road, approximately three miles southeast of the intersection with 131st Street East. Parking for the project will be provided within the existing surface parking lot which provides a total of 47 striped vehicular parking spaces.

Figure 1 illustrates the project site location, and **Figure 2** illustrates the project site plan.

Figure 1 – Project Site Location

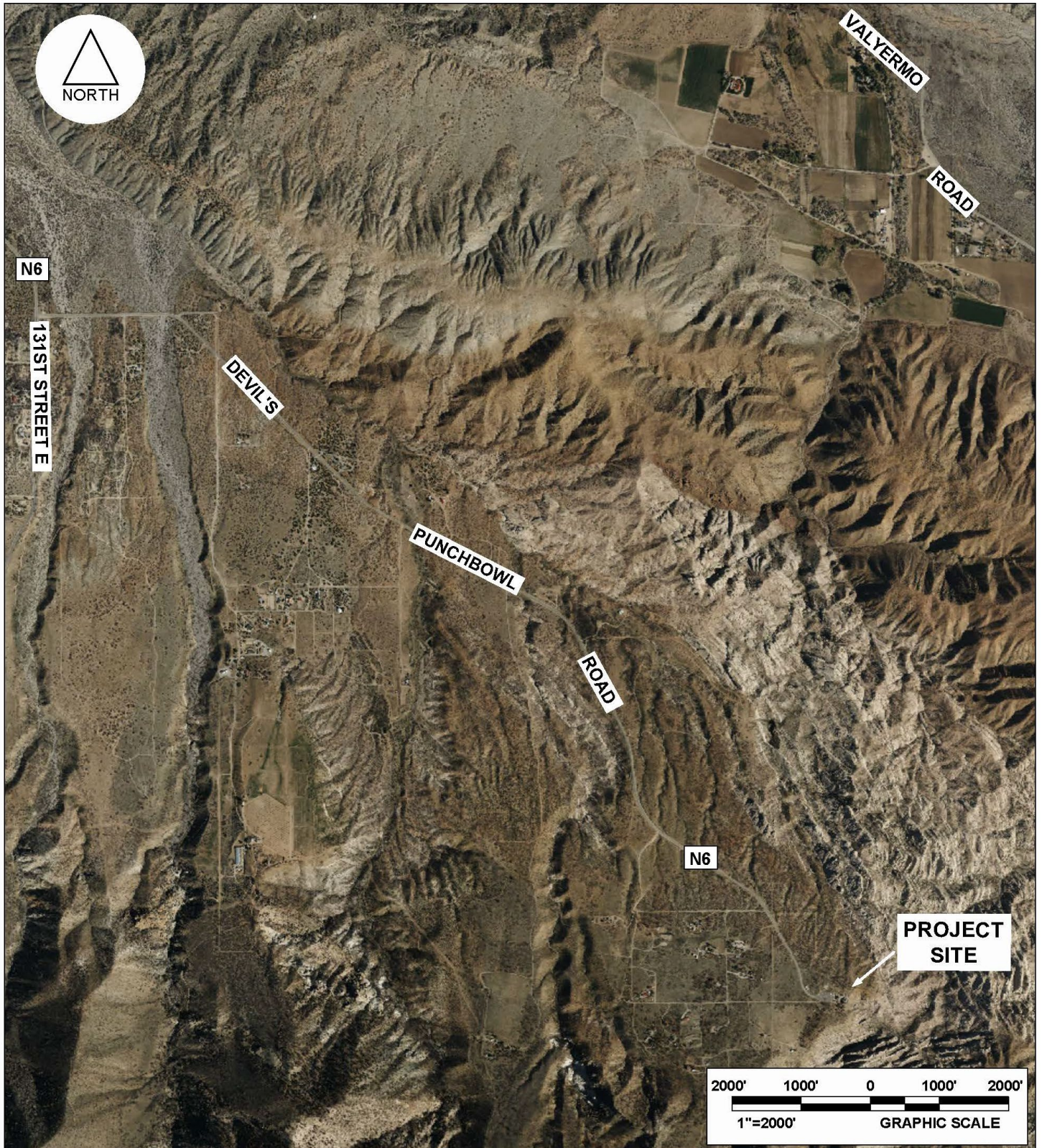


Figure 2 - Project Site Plan



The Devil's Punchbowl
NATURE CENTER
Replacement Planning Project

Preferred Concept



VMT ANALYSIS SCREENING CRITERIA

As of July 1, 2020, all land use projects within the State of California are required to prepare a VMT analysis. In July 2020, the County of Los Angeles developed the *Transportation Impact Analysis Guidelines* (the "County's Guidelines") under which the transportation-related impacts of development projects are to be analyzed to comply with the updated California Environmental Quality Act (CEQA) guidelines. The County's Guidelines provide four screening criteria to be used to determine if a VMT analysis will be required for a development project. The four screening criteria outlined in the County's Guidelines are listed below:

1. Non-Retail Project Trip Generation Screening Criteria
2. Retail Project Site Plan Screening Criteria
3. Proximity to Transit Based Screening Criteria
4. Residential Land Use Based Screening Criteria

In addition, the County's Guidelines establish a trip threshold of 110 or more net daily vehicle trips to determine when a development project is required to prepare a Transportation Impact Analysis (TIA). These screening criteria were applied to the proposed project uses in order to determine whether a TIA is required for the project or if further analysis would be required to evaluate the project's VMT impact.

TRIP GENERATION SCREENING

Per the Non-Retail Project Trip Generation Screening Criteria in the County's Guidelines, projects generating fewer than 110 net daily vehicle trips are not required to prepare a TIA and can be presumed to have a less-than-significant VMT impact. Thus, the project trip generation was calculated to determine whether further analysis would be required for the project.

The Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) was used to develop the traffic characteristics of the project's proposed uses. The trip generation equations, rates, and directional distributions in the ITE manual are nationally recognized and are used as the basis for most transportation-related studies conducted in the County and the surrounding region. However, the ITE *Trip Generation Manual* does not contain trip generation rates for nature center uses. Therefore, the most similar land use type was selected from the ITE manual and used to develop the project trip generation. Information was obtained from the *Trip Generation Manual* for ITE Land Use Code (LUC) 411 – Public Park. These rates were applied to develop the project's trip generation estimates.

Based on the information available for the project, the "Daily Trail Users" was selected as the most appropriate independent variable to apply in order to determine the project trip generation. As the hiking facilities at the Devil's Punchbowl Natural Area generate trips irrespective of the proposed nature center uses, a comparative analysis of park visitorship before and after the Bobcat Fire was conducted to isolate the number of daily visitor trips associated with only the nature center uses.

Two sets of count data were used to determine the number of daily nature center visitors:

- Monthly visitorship data published in the *Los Angeles Countywide Comprehensive Parks and Recreation Needs Assessment Plus (PNA+)* (Los Angeles County Department of Parks and Recreation, December 2022). As part of this study cellphone generated visitorship data was



A LOCHNER COMPANY

compiled from Unacast, a location data platform, between January 2019 and December 2020¹. The monthly visitorship data from the PNA+ report is provided in **Attachment A**.

- Monthly estimated park attendance provided by park staff at the Devil’s Punchbowl Natural Area. The estimated gate count data was collected from April 2022 (when the Devil’s Punchbowl Natural Area reopened following the Bobcat Fire) to April 2023 and is separated by adult and youth visitors. The estimated monthly park attendance provided by park staff is provided in **Attachment B**.

As shown in **Attachments A and B**, park attendance peaks at the project site during the spring months between March and June. To be conservative, monthly attendance numbers during this period were used to estimate the daily attendance for the proposed nature center uses. **Table 1** presents the spring month attendance at the project site during 2019, 2022, and 2023. Data from 2020 was excluded from the analysis due to COVID-19-related stay-at-home orders affecting normal operations of the park. Additionally, per the PNA+ report, the cellphone data collected from the Unacast platform accounts only for data from adults over the age of 18. Therefore, the data from the PNA+ report was conservatively assumed to only account for adult visitors to and from the project site. Thus, a youth-to-adult ratio was developed from the estimated monthly visitorship data provided by park staff for the months of May 2022, June 2022, March 2023, and April 2023² and was applied to the monthly visitor estimates presented in the PNA+ report to estimate the number of youth visitors in 2019.

Table 1
Adjusted Park Monthly Visitor Estimates

PNA+ Cellphone Data					Data Provided by Park Staff									
Year	Month	Monthly Visitors			Year	Month	Monthly Visitors			Year	Month	Monthly Visitors		
		Adults	Youth ¹	Total			Adults	Youth	Total			Adults	Youth	Total
2019	March	2,749	730	3,479	2022	March	-	-	-	2023	March	1,810	673	2,483
2019	April	4,458	1,184	5,642	2022	April	1,982	739	2,721	2023	April	2,261	719	2,980
2019	May	4,013	1,066	5,079	2022	May	2,543	483	3,026	2023	May	-	-	-
2019	June	3,252	864	4,116	2022	June	1,907	388	2,295	2023	June	-	-	-

¹ Estimated based on a youth-to-adult ratio of 0.266, derived from the adult and youth monthly attendance estimates provided by park staff for the months of May 2022, June 2022, March 2023, and April 2023.

In order to derive daily visitor estimates from the monthly visitor data available, weekend-to-weekday trip ratios were calculated from trip generation rates from the ITE *Trip Generation Manual* for LUC 411 (Public Park). The per-acre weekday, Saturday, and Sunday trip generation rates were used to develop the weekday-to-Saturday and weekday-to-Sunday trip ratios presented in **Table 2**.

Table 2
Weekday-to-Weekend Trip Ratios

ITE Code	ITE Trip Rate*	Weekday	Saturday	Weekday-to-Saturday Ratio	Sunday	Weekday-to-Sunday Ratio	
411	Public Park	trips/ac	0.78	1.96	2.51	2.19	2.81

The monthly visitor estimates for the months of March – June 2019, May – June 2022, and March – April 2023 were divided into daily trip estimates using the ratios in **Table 2** and the number of weekdays, Saturday, and Sundays in each month. The daily visitor estimates during these months are presented in **Tables 3 and 4** for the project site with and without the nature center uses, respectively.

¹ Per the PNA+ report, the Unacast data includes data only for adults over the age of 18. Therefore, the data provided by the PNA+ report was conservatively assumed to account only for adult visitors at the project site.

² Data from the month of April 2022 was conservatively not considered as part of the analysis as the recent reopening of the park on April 1, 2022 may have resulted in reduced park visitorship numbers.

Table 3
Park Daily Visitor Estimates prior the Bobcat Fire (2019)

Park Daily Visitor Estimates before Bobcat Fire (with Nature Center Uses)								
Year	Month	Number of Days			Monthly Visitor Total (adjusted)	Daily Visitor Estimates		
		Weekdays	Saturdays	Sundays		Weekday	Saturdays	Sundays
2019	March	21	5	5	3,479	73	183	205
2019	April	22	4	4	5,642	130	326	365
2019	May	23	4	4	5,079	115	289	323
2019	June	20	5	5	4,116	88	221	247
AVERAGE		-	-	-	-	102	255	285

Table 4
Park Daily Visitor Estimates after the Bobcat Fire (2022 and 2023)

Park Daily Visitor Estimates after Bobcat Fire (without Nature Center Uses)								
Year	Month	Number of Days			Monthly Visitor Total	Daily Visitor Estimates		
		Weekdays	Saturdays	Sundays		Weekday	Saturdays	Sundays
2022	May	22	4	5	3,026	66	166	185
2022	June	22	4	4	2,295	53	133	149
2023	March	23	4	4	2,483	56	141	157
2023	April	20	5	5	2,980	64	161	180
AVERAGE		-	-	-	-	60	150	168

As shown on **Table 3**, prior to the Bobcat Fire, the park with the nature center uses in place generated, on average, 102 visitors on a typical weekday, 255 visitors on a typical Saturday, and 285 visitors on a typical Sunday during the spring months. After the Bobcat Fire, and as shown on **Table 4**, the park without the nature center uses generated, on average, 60 visitors on a typical weekday, 150 visitors on a typical Saturday, and 168 visitors on a typical Sunday during the spring months.

To isolate the number of daily visitors associated with only the nature center uses, the number of daily visitors at the park after the Bobcat Fire (after the nature center had burned down) was subtracted from the number of daily visitors at the park before the Bobcat Fire (when the nature center was operational). The calculation of daily visitors for the nature center uses is presented in **Table 5**. As shown, the nature center uses, during the peak spring season, are expected to generate 42 visitors on a typical weekday, 105 visitors on a typical Saturday, and 117 visitors on a typical Sunday.

Table 5
Nature Center Daily Visitor Estimates

Year	Condition	Daily Visitor Estimates		
		Weekday	Saturdays	Sundays
2019	Park Daily Visitors with Nature Center Uses	102	255	285
2022/2023	Park Daily Visitors without Nature Center Uses	60	150	168
	Nature Center Daily Visitors	42	105	117

Using the daily visitor estimates for the proposed nature center uses shown in **Table 5**, daily vehicle trip estimates were calculated for the proposed project uses using rates from the ITE *Trip Generation Manual* for LUC 411 (Public Park), as shown in **Table 6**. Due to the remote location of the project, no additional trip adjustments for transit usage, walk/bike potential, or pass-by trips were assumed within the trip generation

calculations. As shown, the project is expected to generate 40 vehicle trips on a typical weekday, 100 vehicle trips on a typical Saturday, and 105 vehicle trips on a typical Sunday during the peak spring months.

**Table 6
Project Trip Generation Summary¹**

Land Use/Trip Type	ITE Code	Intensity ²			Average Weekday ³	Average Saturday	Average Sunday
<i>Trip Generation Rates</i>							
Public Park	411	1 dtu			-	0.95	0.90
<i>Trip Generation Summary</i>							
Description	Size			Average Weekday ³	Average Saturday	Average Sunday	
	Avg. Wkday	Avg. Sat	Avg. Sun				
PROPOSED USES							
<i>Recreational</i>							
Public Park Vehicle Trips		42 dtu	105 dtu	117 dtu	40	100	105
Project Vehicle Trips					40	100	105

Notes:

- 1) ITE *Trip Generation Manual* (11th Edition, 2021) trip generation rates and directional distributions were applied for Land Use Code 411 (Public Park) to develop baseline vehicle trip estimates for the proposed land uses. The General Urban/Suburban setting was selected as most appropriate for the Project location. Transit, walk/bicycle, and pass-by trip adjustments were conservatively not applied to the baseline vehicle trip calculations due to the remote location of the project.
- 2) dtu = Daily Trail Users.
- 3) Average weekday trip generation rates not provided for the Daily Trail User independent variable. Daily weekday trip generation were calculated by applying the Weekday-to-Saturday trip ratio presented previously in Table 2 to the Saturday trip generation estimates.

The vehicle trips presented in **Table 6** were used to calculate the weighted average daily vehicle trip generation for the proposed project uses, as shown below in **Table 7**. Over the course of a week during the peak spring months, the proposed project nature center uses are expected to generate approximately 58 daily vehicle trips. Since the project will generate less than the County’s screening criteria of 110 daily vehicle trips, the project does not require the preparation of a Transportation Impact Analysis or additional VMT analysis. Thus, based on the project trip generation, the project can also be assumed to have a less-than-significant VMT impact.

**Table 7
Average Daily Vehicle Trip Generation**

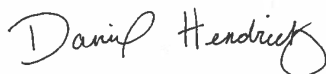
	Vehicle Trip Generation			
	Average Weekday	Average Saturday	Average Sunday	Average Daily
Proposed Project Uses	40	100	105	58

CONCLUSION

Per the County’s Guidelines, additional VMT analysis is required when a project is not screened per any of the four screening criteria. Given that the project is expected to generate fewer than 110 vehicle trips on a typical day, the project screens out based on the first screening criterion. As the project will generate fewer than 110 daily vehicle trips, it is not expected to result in significant VMT impacts to the surrounding transportation system. Therefore, no further analysis of transportation impacts is required for the project.

Should you have any questions or would like to discuss the VMT screening assessment, please contact me at (310) 981-4383.

Sincerely,



Daniel Hendricks, T.E.
Senior Associate Planner

ATTACHMENTS

ATTACHMENT A

**DEVIL'S PUNCHBOWL NATURAL AREA
MONTHLY VISITORSHIP REPORT 2019-2020**

Devil's Punchbowl Natural Area



VITAL STATISTICS



KEY PARK AMENITIES

- Nature Center
- Outdoor Performance Area
- Animal Exhibits
- Equestrian Facilities
- Hiking Trails
- Mountain Biking Trails
- Picnic Areas

DESCRIPTION

Devil's Punchbowl is situated within the San Gabriel Mountains. The 1,310-acre geological wonder has a 7.5-mile round-trip trail through a deep canyon formed by the runoff of large quantities of water from the higher San Gabriel Mountains where visitors can walk, mountain bike, hike or take a horseback ride. Visitors can participate in astronomy programs, bird walks, horseback riding, a junior ranger program, moonlight hikes, nature and plant walks or visit the Nature Center to learn about the native wildlife and park history. The park also includes amphitheaters, barbecue and picnic areas, a library, outdoor stages, restrooms, multipurpose rooms and museums.

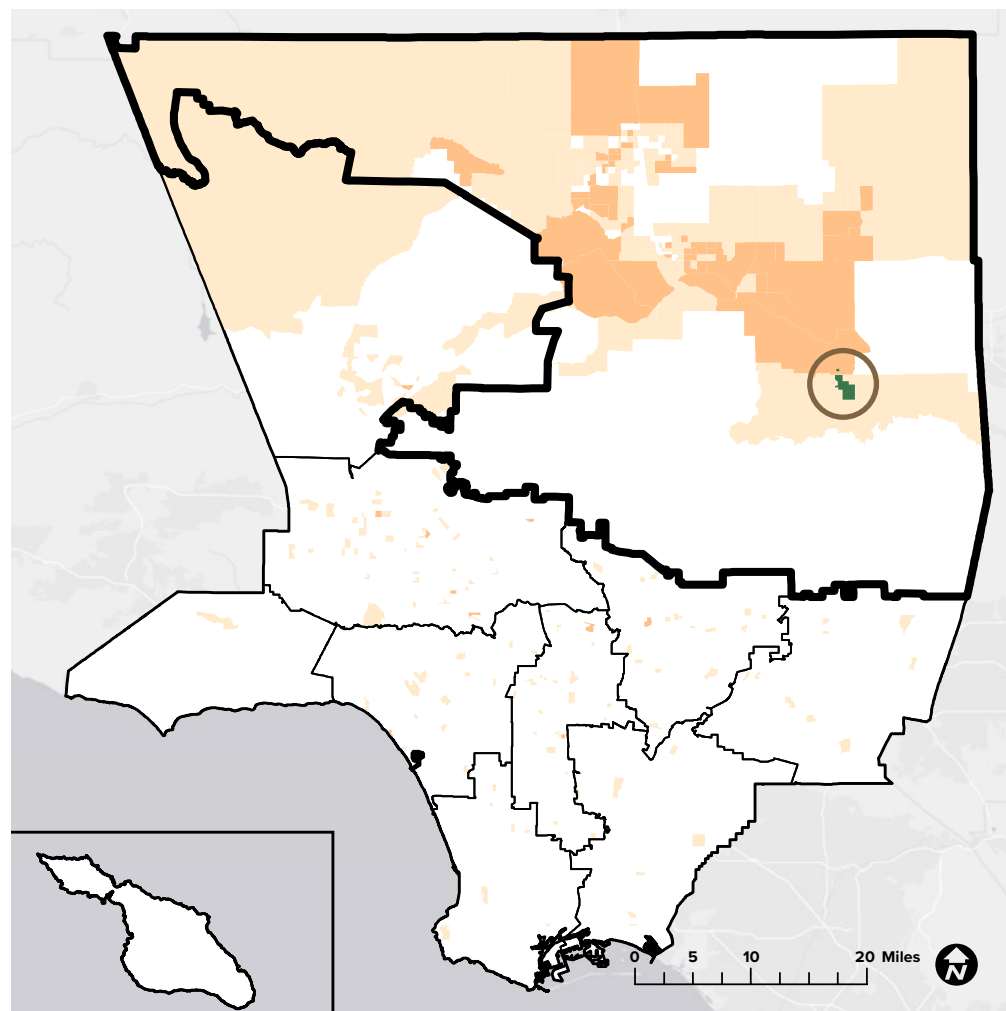
Note: In September 2020, the Bobcat Fire destroyed over 30,000 acres of land, which included many parts of the Devil's Punchbowl Natural Area, including the Nature Center. As a result, the Devil's Punchbowl Natural Area was closed to the public from September 2020 to March 2022.

WEBSITE

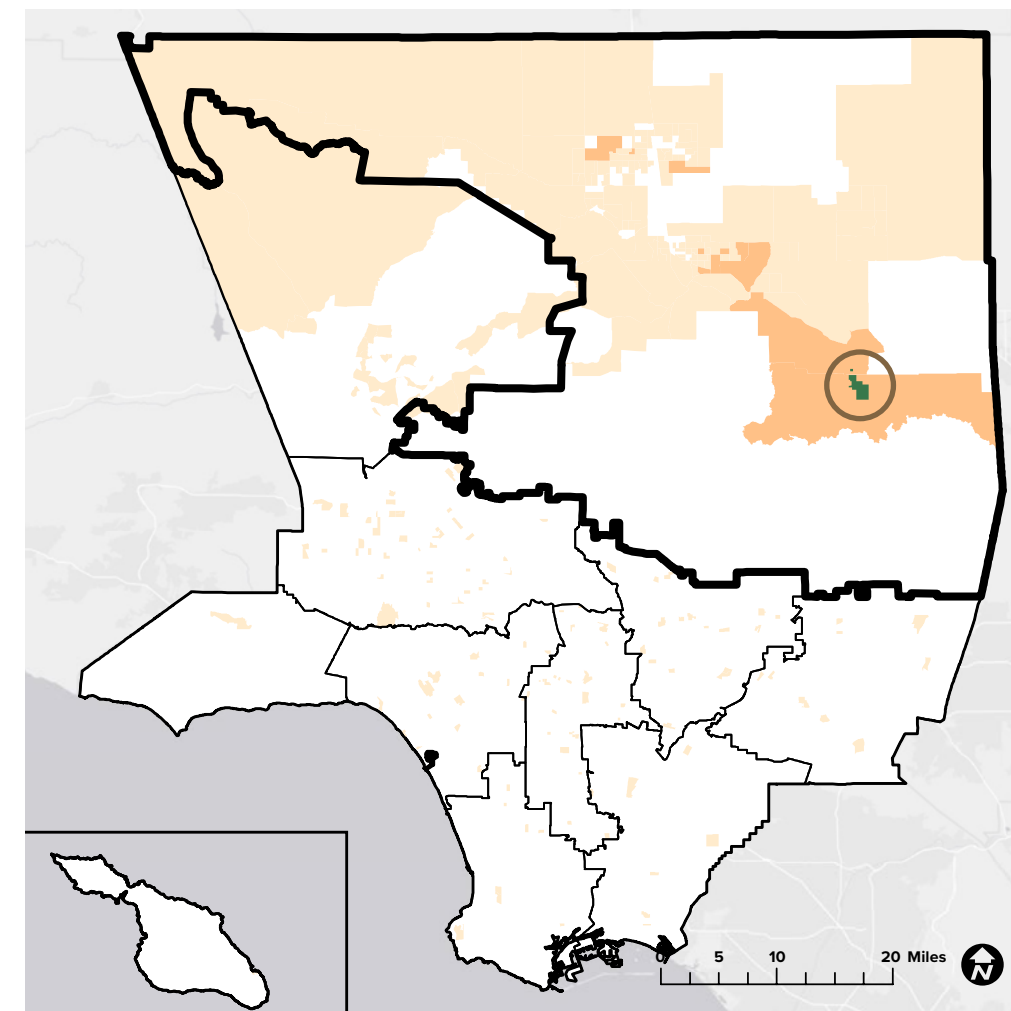
www.parks.lacounty.gov/devils-punchbowl-natural-area-and-nature-center/

ANNUAL VISITORSHIP / VISITOR ORIGIN

2019
27,475 visitors



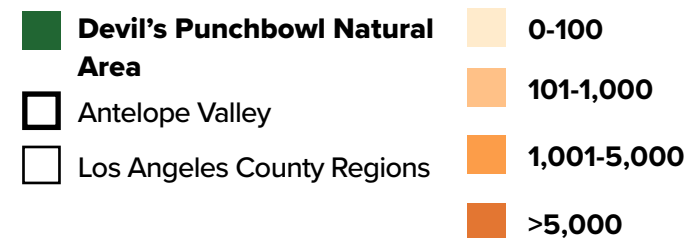
2020
11,505 visitors



68%
originated from within LA County

32%
originated from outside LA County

49%
originated from Antelope Valley



68%
originated from within LA County

32%
originated from outside LA County

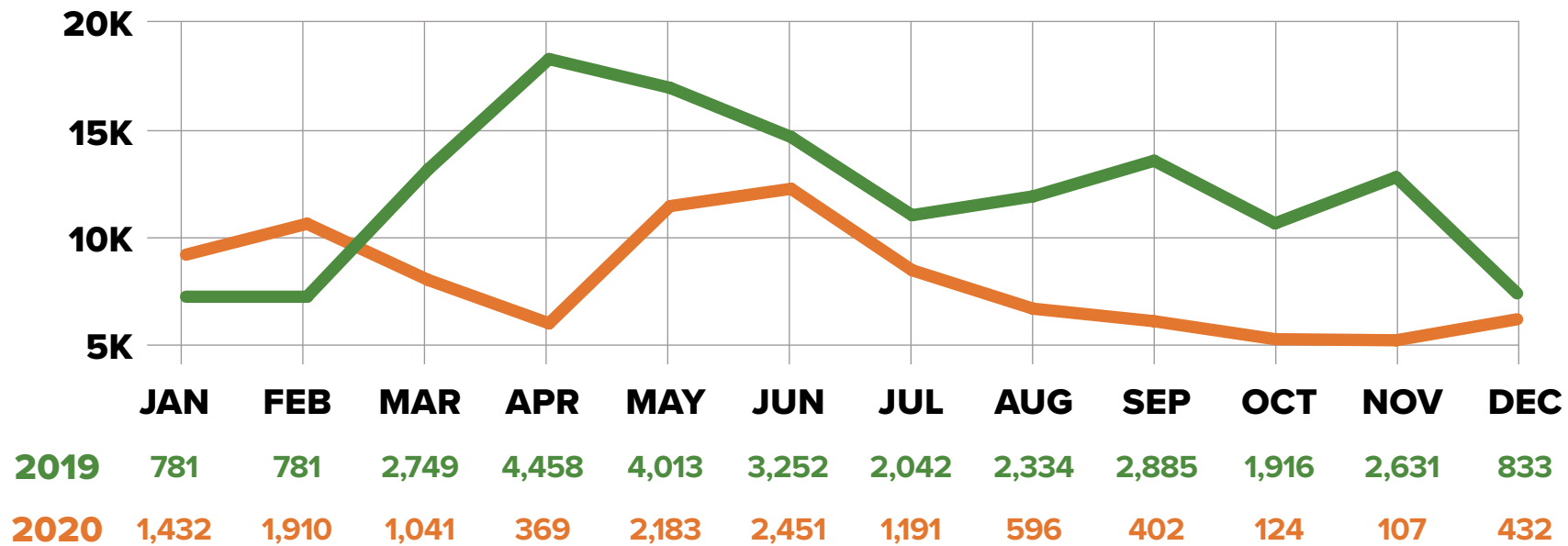
44%
originated from Antelope Valley

Sources: Unacast 2021 (LA County DPR 2020, LA County PNA 2016, ESRI 2021)

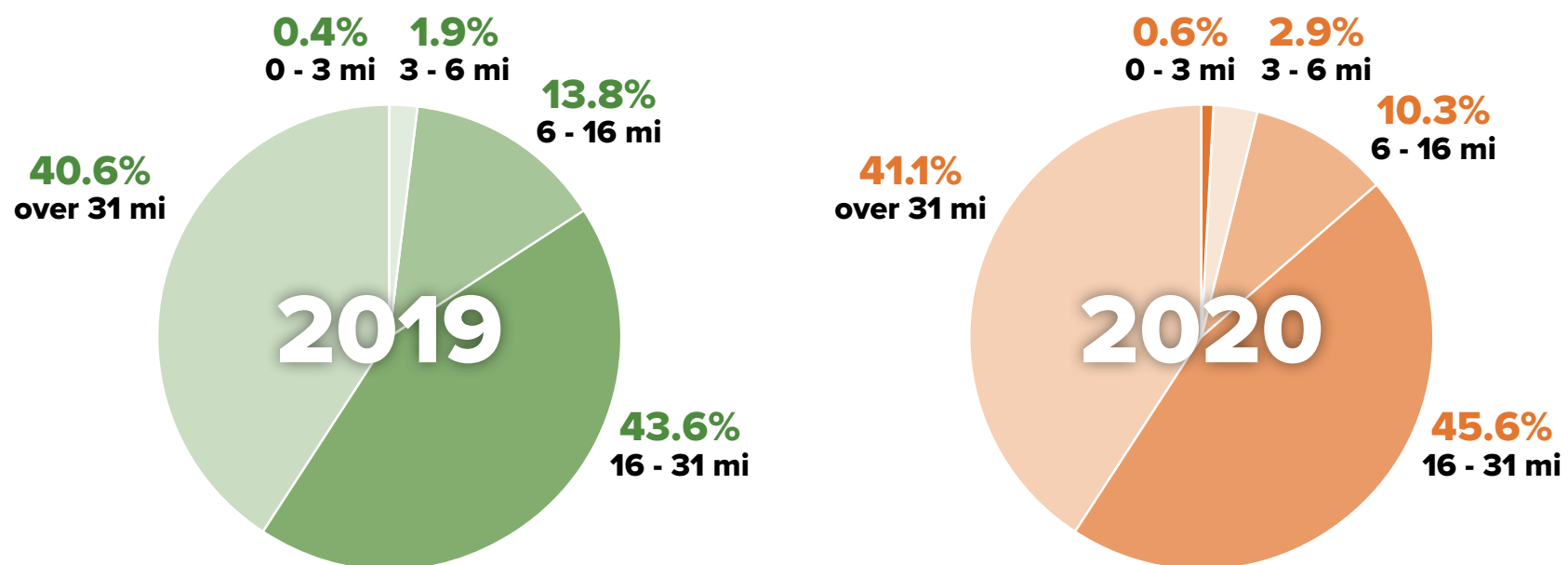
Devil's Punchbowl Natural Area



MONTHLY VISITORSHIP



TRAVEL DISTANCE



DEMOGRAPHICS

EDUCATION

	High School Diploma	Some College, No Degree	Associates Degree	Bachelors Degree	Masters Degree & Above
2019	18.2%	21.4%	7.3%	12.6%	5.3%
2020	18.5%	20.8%	7.1%	13.6%	5.6%

INCOME

	Less than \$24,999	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 - \$124,999	More than \$125,000
2019	19.3%	20.1%	20.9%	12.3%	8.1%	18.9%
2020	19.2%	19.0%	21.0%	13.0%	8.8%	18.6%

GENDER IDENTITY

	Male	Female
2019	48.7%	51.3%
2020	48.7%	51.3%

RACE/ETHNICITY

	Amer-Indian	Asian	Black	Hispanic	White	2 or More	Other
2019	0.5%	7.1%	9.4%	40.8%	39.1%	2.6%	0.3%
2020	0.2%	9.0%	9.8%	41.8%	36.3%	2.4%	0.3%

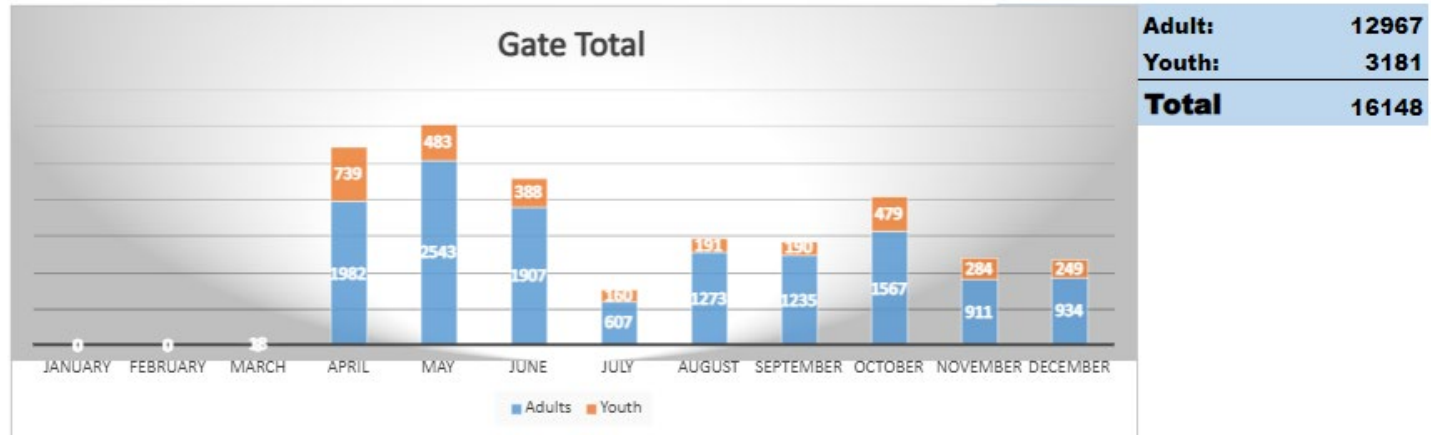
AGE

	18-29	30-39	40-49	50-59	60-69	70-79	80+
2019	25.2%	16.3%	17.5%	17.8%	13.0%	6.5%	3.7%
2020	23.3%	17.5%	19.0%	17.7%	12.5%	6.4%	3.5%

ATTACHMENT B

**DEVIL'S PUNCHBOWL NATURAL AREA
MONTHLY VISITORSHIP ESTIMATES 2022-2023**

APRIL 2022 – DECEMBER 2022



JANUARY 2023 – APRIL 2023



Source: Devil's Punchbowl Natural Area Park Staff