

## **Aquinnah Headland Preserve - Moshup Beach**

### **Data**

Moshup Beach is a highly-visited property, with 32,052 recorded visitors in 2023. This is a decrease from 37,506 visitors in 2022, representing 15%. There was a notable decrease in the number of bicyclists between 2023 and 2022 with a total of 43 visitors arriving on bicycles in 2023 and a total of 268 visitors arriving on bicycles in 2022.

The difference in the number of attending days in 2023 and 2022 was statistically significant and suggests the difference in number of attending days may have a real effect on the data reported this season (t-test,  $p = 0.046$ ). In 2023, Moshup Beach was attended for 77 days. In 2022, Moshup Beach was attended for 89 days. The biggest difference in days attended occurred during August with 25 days attended in 2023 compared to 30 days attended in 2022.

July was the most visited month of 2023, followed by August, June, and then September (ANOVA,  $p = 0.74$ ). The greatest number of visitors occurred on Wednesdays, Saturdays, Thursdays, and Mondays. It should be noted that the number of cloudy, rainy, windy, and overcast days this season exceeds the number from last season. According to local weather records, up to 27 days throughout the summer season (June 12th-September 8th) showed a chance of precipitation/inclement weather. From trends in the data recorded, conversations with visitors, and notes made by summer rangers, it is worth considering the impact that weather had on visitors' decision to visit Moshup Beach and pay for parking at the town lot (if they drove) during the summer of 2023.

### **Recommendations:**

1. Locate the bike rack closer to the equipment storage box. This will prevent rangers from miscounting the number of bikers and prevent parked bikes from being hit by cars.
2. Clarify dog policy to note that non-service dogs being carried or otherwise transported onto the beach in any way, e.g., in a backpack or stroller, are subject to the same dog policy as dogs that walk onto the beach.

### **Graphics**

There was a total of 32,052 visitors in 2023 and 37,506 visitors in 2022 (Figure 1A). There were far fewer bicyclists in 2023 (43) than in 2022 (268) (Figure 1B). The number of people fishing was slightly less in 2023 (93) compared to 2022 (111). The number of dogs recorded in 2023 (65) was less than half of the number of dogs recorded in 2022 (138). These differences were not significant (t-test,  $p = 0.36$ ).

Figure 1A: Total Visitors

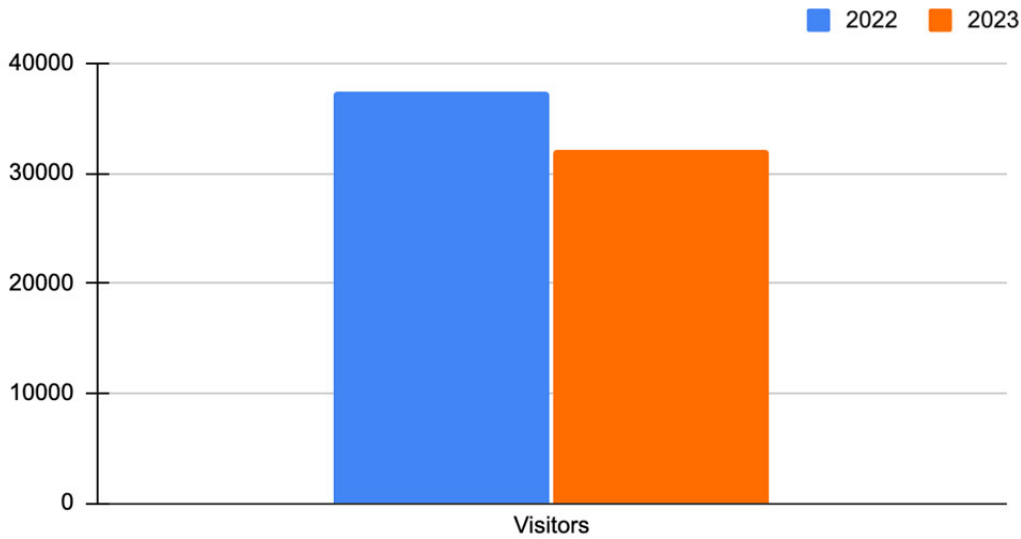
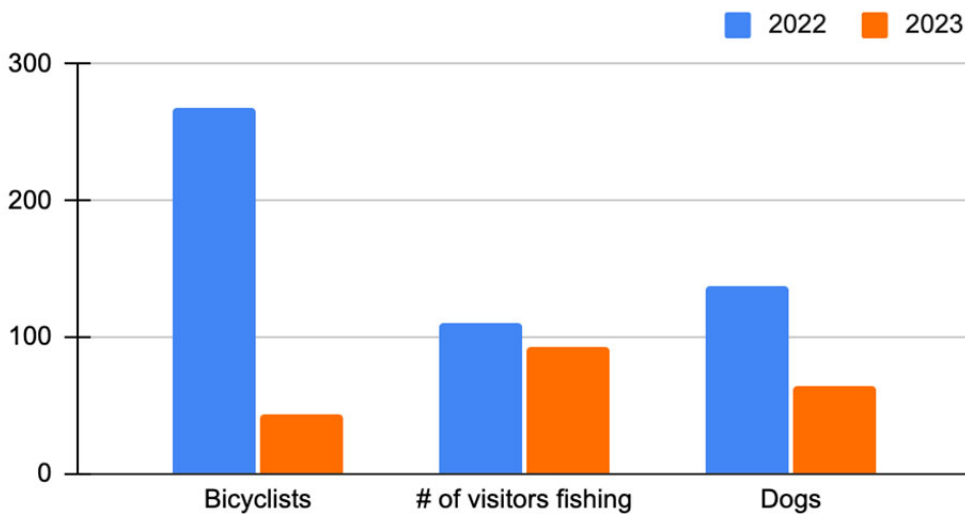
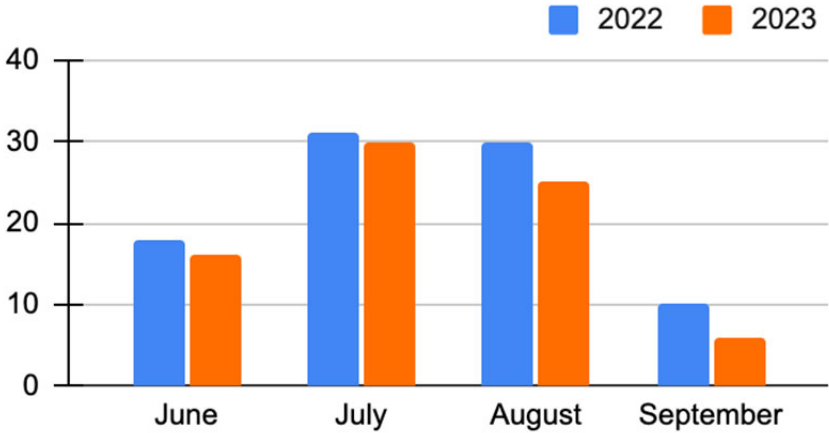


Figure 1B: Total Beach Usage



The number of days attended shifted from 2022 to 2023 (Figure 2). In 2022, Moshup Beach was attended for 18 days in June, 31 days in July, 30 days in August, and 10 days in September. In 2023, Moshup Beach was attended for 16 days in June, 30 days in July, and 6 days in August. The resulting difference of 12 days more attending in 2022 than in 2023 may suggest a real effect on the data reported this season (t-test,  $p = 0.046$ ).

Figure 2: Number of Days Attended



Every month of the 2022 season, June, July, August, and September, had a higher average of daily visitors per month compared to the summer months of the 2023 season. The average number of daily visitors in the month of August was similar across both years and the month of July had the greatest number of visitors (485 average visitors daily). When examining other property use metrics (Figure 3B), July had the greatest total use followed by June and August. Additionally, based on summer ranger notes, many of the visitors who came to Moshup Beach with service dogs repeatedly visited the property, which could explain the higher number of dogs in June of 2023 compared to past years.

Figure 3A: Average Number of Daily Visitors

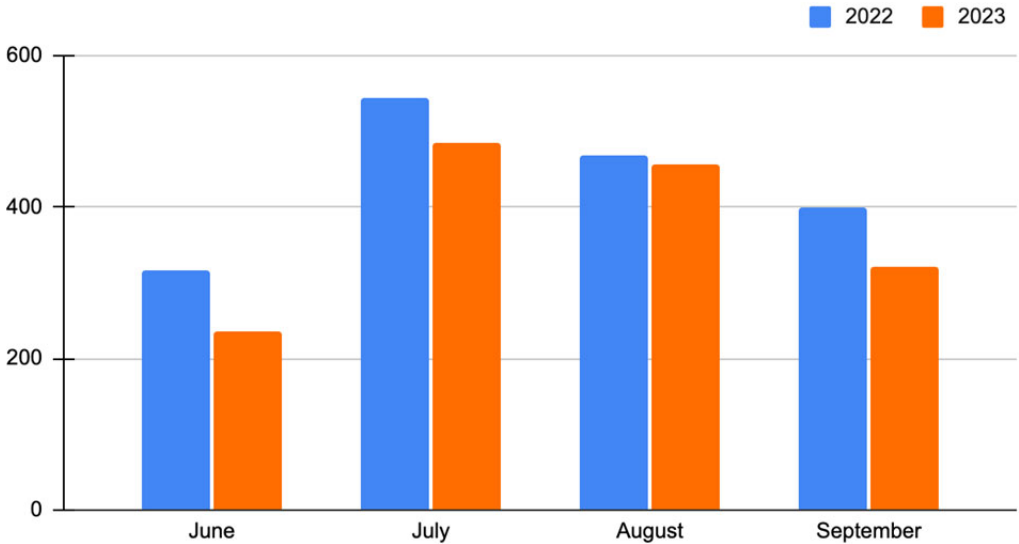
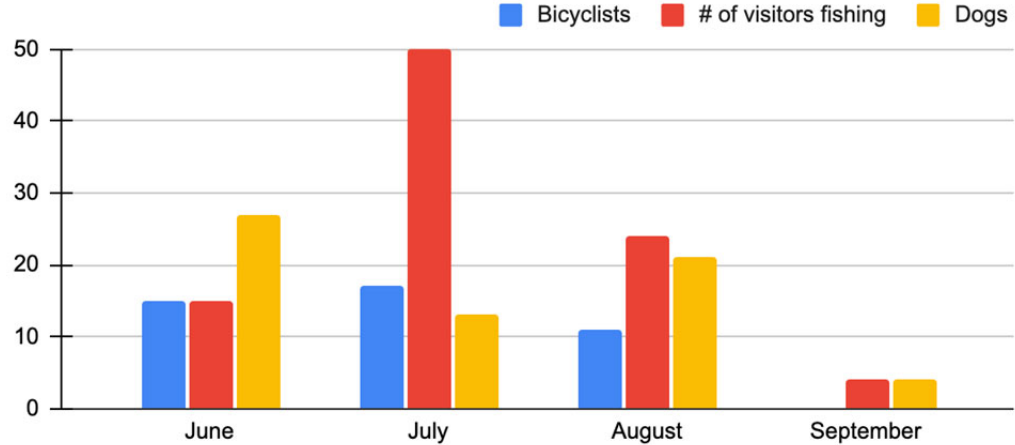


Figure 3B: Total Monthly Beach Usage 2023



When considering the effect the difference in the number of days attended per month between 2023 and 2022 had on the data, one of the reasons the overall visitor counts recorded for the months of June, August, and September appear lower this season than last may be simply because there was not a summer ranger was present to count the visitors (t-test,  $p = 0.046$ ). However, the month of July suggests the overall lower visitor counts this year may not have been contingent upon the number of days attended. Moshup Beach was attended for 30 days in July 2023 and 31 days in July 2022. In July 2023, an average of 485 visitors came to Moshup Beach on any given day. Comparatively, an average of 543 visitors came to Moshup Beach on any given day in July 2022. There was a greater average number of visitors in July 2022 than in July 2023 (Figure 4A), and over 6 times more visitors arriving by bicycle (Figure 4B) in 2022 than in 2023. Interestingly, there was an across-the-board decrease in visitors' overall beach usage as measured by the number of bicyclists, visitors fishing, and dogs in 2023 compared to 2022 (t-test,  $p = 0.35$ ).

Figure 4A: July Average Number of Daily Visitors

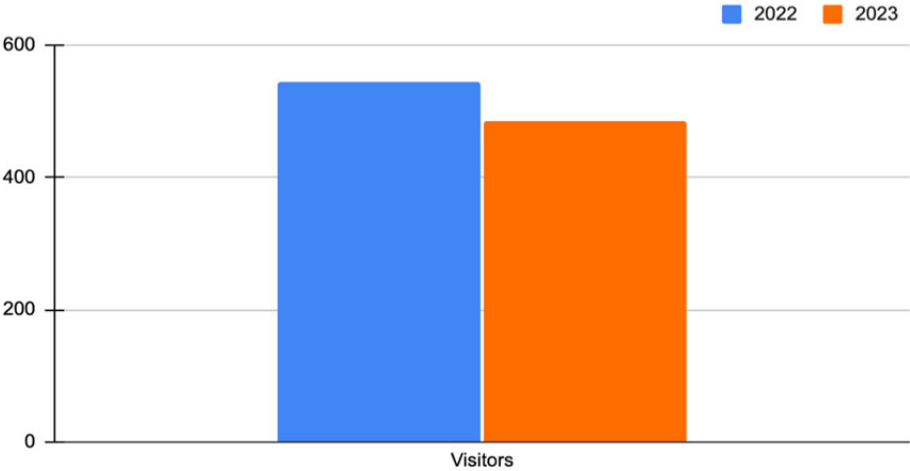
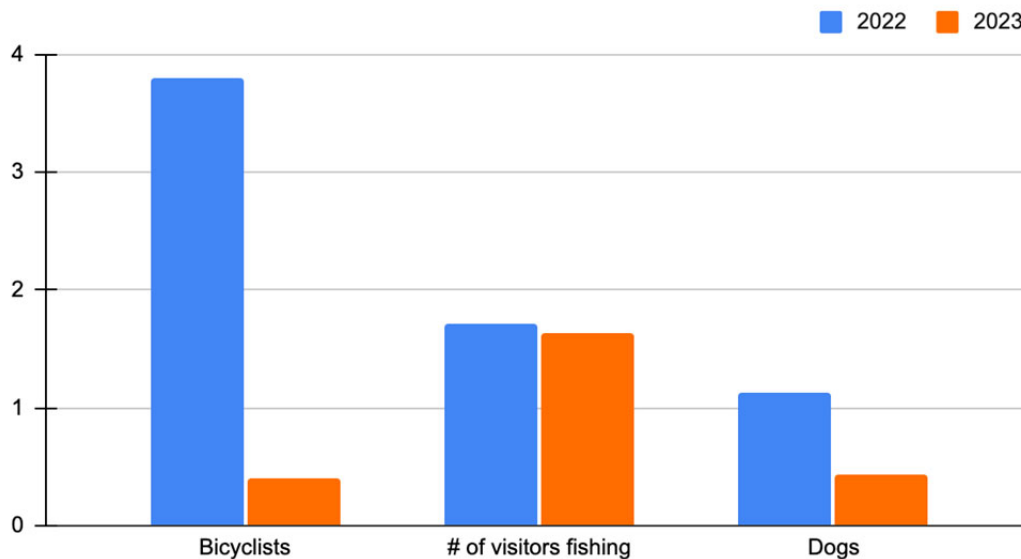


Figure 4B: July Average Daily Beach Usage



The total number of visitors was greatest on Wednesdays, Saturdays, Thursdays, and Mondays (Figure 5A, ANOVA,  $p = 0.39$ ). This trend is mirrored by the overall number of visitors fishing, dogs, and bicyclists on Saturdays and Mondays (Figure 5B). Notably, Wednesday shows the greatest number of visitors fishing, followed closely by Sunday. Compared to 2022, Sundays did not yield high visitor counts in the 2023 season. A possible reason for this is differences in data collection between various rangers and the availability of staff to work at Moshup Beach on weekends.

Figure 5A: Total Visitors by Day of the Week

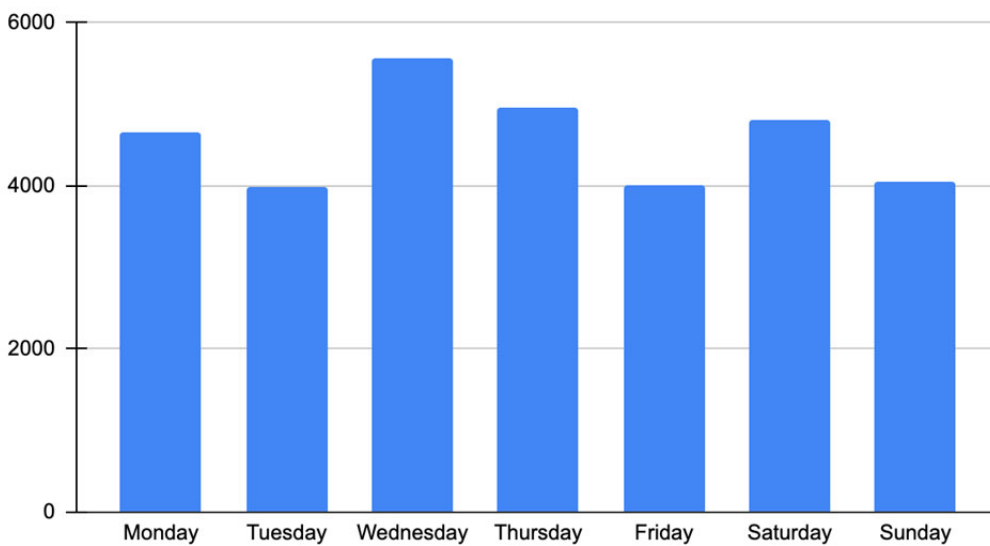
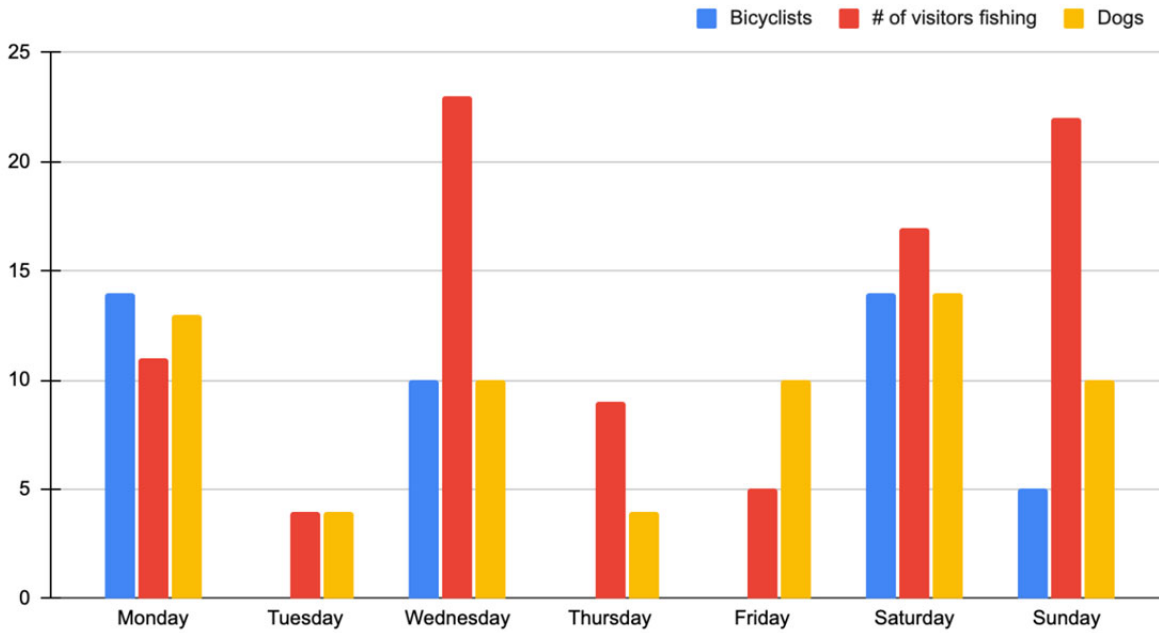


Figure 5B: Total Beach Usage by Day of the Week



**Data tables**

Table 1: Number of days attended in 2023 and 2022

# days attended	2023	2022
June	16	18
July	30	31
August	25	30
September	6	10

Table 2: Property usage in Summer 2023

	Daily Average:	Total:
Visitors	421.74	32052
Bicyclists	0.57	43
# of visitors fishing	1.22	93
Dogs	0.86	65

Table 3: Property usage data with daily avg (average), totals, and averages by day of the week

Monthly Data		Daily Avg	Total	Avg Monday	Avg Tuesday	Avg Wednesday	Avg Thursday	Avg Friday	Avg Saturday	Avg Sunday
June	Visitors	236.5	4198	271	213.5	232	219.667	241.5	187	332
	Bicyclists	0.9375	15	2.33	0	0.33	0	0	3.5	0
	# of visitors fishing	0.8125	15	0.67	0	1	0	0	1.5	5
	Dogs	1.6875	27	2	1	3.33	0.33	0.5	3.5	0
Monthly Data		Daily Avg	Total	Avg Monday	Avg Tuesday	Avg Wednesday	Avg Thursday	Avg Friday	Avg Saturday	Avg Sunday
July	Visitors	484.567	14642	383.25	467.75	605.5	486.25	469.25	521.8	456
	Bicyclists	0.4	17	0.5	0	0.75	0	0	0.8	0.6
	# of visitors fishing	1.633	50	1.25	0.75	3	1	0.5	2.4	2.2
	Dogs	0.433	13	0.5	0	0	0.5	0	0.8	1
Monthly Data		Daily Avg	Total	Avg Monday	Avg Tuesday	Avg Wednesday	Avg Thursday	Avg Friday	Avg Saturday	Avg Sunday
August	Visitors	455.88	11288	455.5	353	443	414.5	511	608	481.33
	Bicyclists	0.64	11	1.25	0	1.2	0	0	1	0.667
	# of visitors fishing	1	24	1	0	1.6	1	0.5	0.667	2
	Dogs	0.84	21	1.25	0.5	0	0.25	2.5	1	1.6667
Monthly Data		Daily Avg	Total	Avg Monday	Avg Tuesday	Avg Wednesday	Avg Thursday	Avg Friday	Avg Saturday	Avg Sunday
September	Visitors	320.667	1924	489	286	236	349.5	312		
	Bicyclists	0	0	0	0	0	0	0		
	# of visitors fishing	0.667	4	0	1	0	0.5	1		
	Dogs	0.667	4	0	0	0	0	2		

Table 4: Total property usage data by day of the week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Visitors	4657	3996	5569	4961	4006	4807	4056
Bicyclists	14	0	10	0	0	14	5
# of visitors fishing	11	4	23	9	5	17	22
Dogs	13	4	10	4	10	14	10

**Anecdotes:**

Parking attendants at the town parking lot noted fewer vehicles in 2023 compared to 2022. This may have been attributed to the increase in parking prices. The lower visitor counts this season compared to last season may have been linked to this. Unlike the 2022 data that showed a higher number of visitors opting to bike to Moshup Beach rather than drive, the decrease in visitors biking to this property is reflected in the lower overall visitor counts this season compared to last.

Throughout the summer, visitors coming to Moshup Beach expressed surprise at the lower beachgoer turnout this year. Based on summer rangers’ notes and conversations with visitors, many people felt Moshup Beach was far less populated than in past years.

Unlike summer 2022, when summer rangers and visitors noted the surplus of rocks on the beach, Moshup Beach was sandy and smooth for most of the summer — much to the delight of visitors. This, as explained in the management plan, is a typical cycle for Moshup Beach.

Interestingly, there were multiple instances of deceased marine mammals washing up on the shore at Moshup Beach this year. The presence of these deceased mammals was reported to the NOAA Response Network. Some visitors complained of the stench from the decaying mammals (seals), but ultimately nature took its course and overall visitors did not seem to be dissuaded from visiting this property on account of the smell.

Additionally, there were frequent Portuguese man o’ war and jellyfish sightings. Rangers were encouraged to offer vinegar and warm water to visitors who were stung. Rangers were also encouraged to share tide information with visitors. Tide information was provided on a whiteboard sign and updated daily, to answer visitor inquiries about tide times.



## Chilmark Pond Preserve

### Data:

Chilmark Pond Preserve was the least frequently attended property in 2023 and 2022. In 2023, the property had a summer ranger a maximum of two days per week between June 12 and June 30, and four days per week during the month of July. In 2022, the property had a summer ranger present between two and six days per week between June 22 and September 2. During the summer of 2023, Chilmark Pond was attended only on weekdays: overall, three times on Mondays, three times on Tuesdays, once on Wednesday, three times on Thursdays, and four times on Fridays. Comparatively, rangers were present in 2022 on Tuesdays, Wednesdays, and Thursdays. Per the recommendation in the 2022 Chilmark Pond Preserve report, this property was only staffed when sufficient rangers were available.

The 2023 season had a total of 222 recorded visitors, 74 vehicles, and 195 minutes when the trailhead was full. The 2022 season had a total of 144 visitors, 65 vehicles, and 20 minutes when the trailhead was full.

The data for Chilmark Pond Preserve can be compared between years given the similarity in the number of days attended and weekdays attended during summer 2023 and summer 2022. Chilmark Pond Preserve was attended 14 days in 2023 and 9 days in 2022. Importantly, the 14 days Chilmark Pond Preserve was attended during 2023 occurred only between June 12 and July 31. By comparison, the 9 days Chilmark Pond Preserve was attended during 2022 were spread out between June 27 and September 7. With this in mind, the month of July serves as the strongest point of comparison between the two years.

When examining the most comparable month, July of 2023 saw far fewer use of non-motorized boats, i.e., kayaks, than in July 2022. Notably, the time the trailhead was full in 2023 appears significantly higher than in 2022, 195 minutes in 2023 compared to 20 minutes in 2022. This difference can be attributed to an anomaly in the data on July 20, 2023, as seen in the recorded weekly data below.

Table 1: Weekly Data July 17-23, 2023

Date	Vehicles	Bicyclists	Non-motorized boats	Paddleboards/ surfboards	Max # of vehicles in lot	Total visitors	Time lot full (min)	Dogs
7/17								
7/18	1	0	1	0	1	2	0	0
7/19	5	0	6	0	4	10	0	0
7/20	9	0	3	11	5	27	195	0

7/21	3	0	0	5	3	16	0	0
7/22								
7/23								
Weekly Total	18	0	10	16	13	55	195	0
Weekly Max	9	0	6	11	5	27	195	0
Weekly Avg	4.5	0	2.5	4	3.25	13.75	48.75	0

As has been noted in previous reports, the high cyanobacteria counts at Chilmark Pond have likely impacted the property’s visitors. This season, cyanobacteria levels tested high in late July 2023 and an algal bloom advisory was issued by the Boards of Health. On September 5, 2023, the Chilmark Board of Health recommended against the recreational use of Chilmark Pond due to the potentially harmful algal bloom. This was lifted on October 18, 2023.

Unlike past years, there were no recorded incidences of visitors’ boating equipment being left overnight. However, given the limited days attended on this property, it is unknown if incidences occurred outside of the 14 days attended.

According to the notes recorded on data sheets filled out by summer rangers in the 2023 season, several rangers kayaked across Chilmark Pond to check on the barrier beach and collect trash.

**Recommendations:**

1. Continue checking the property for watercraft or trailers left at the launch area.
2. Ensure rangers are well-informed about bacterial testing in the pond and up-to-date on existing algal bloom alerts, watches, or advisories.

**Graphics:**

The number of days attended was not significantly different (t-test, p =0.63) between 2021 and 2022 (Figure 1). July is examined in Figures 2 and 3, for comparison purposes.

Figure 1: Number of Days Attended

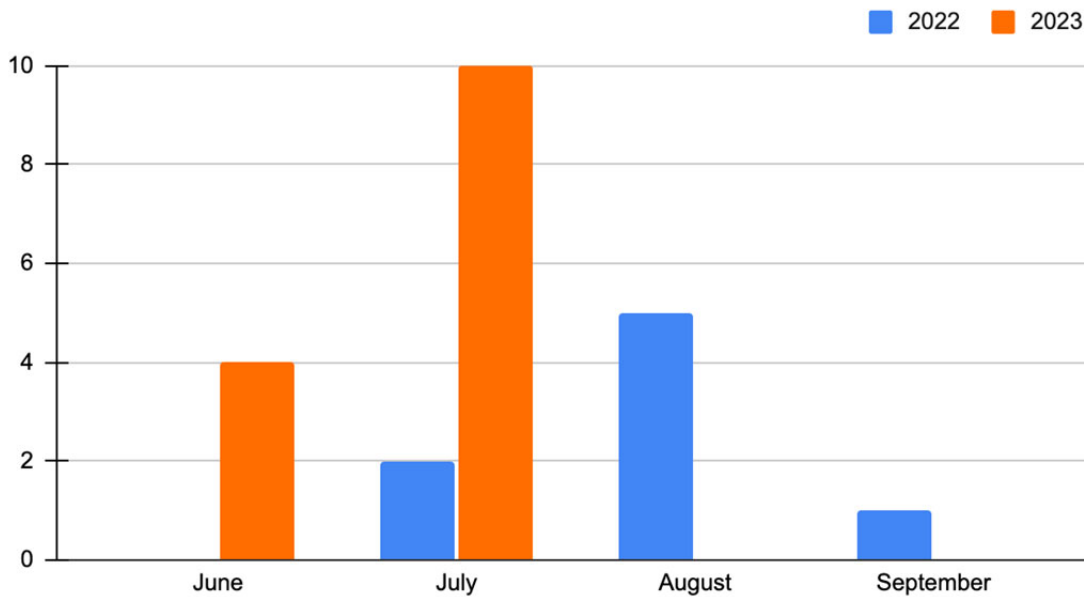
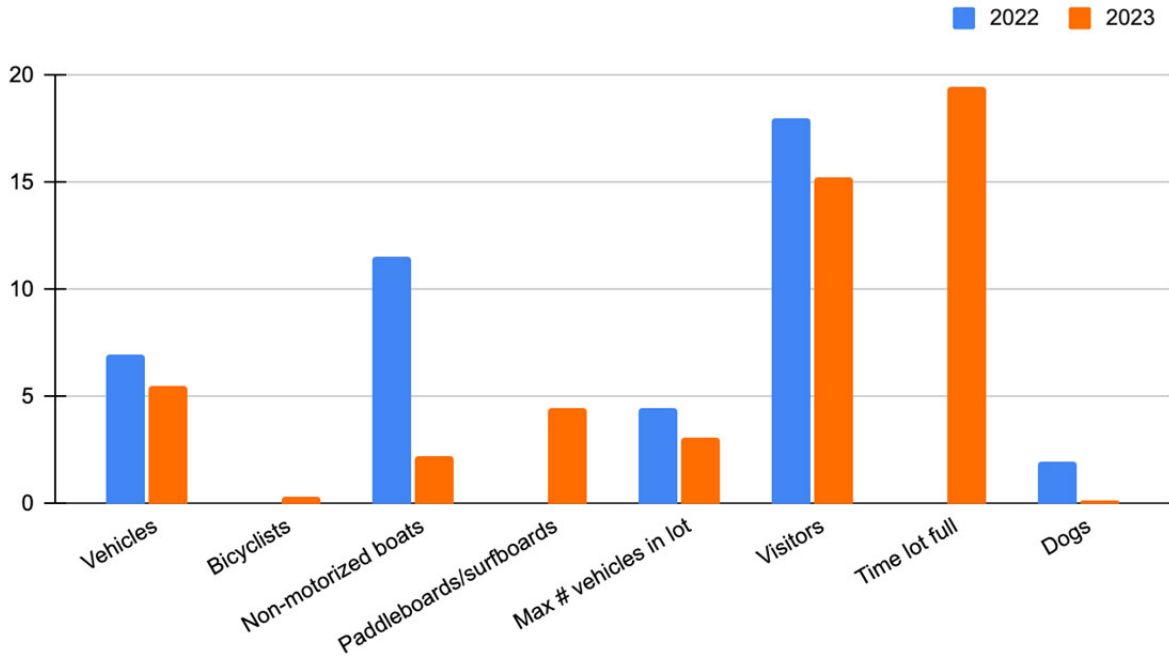


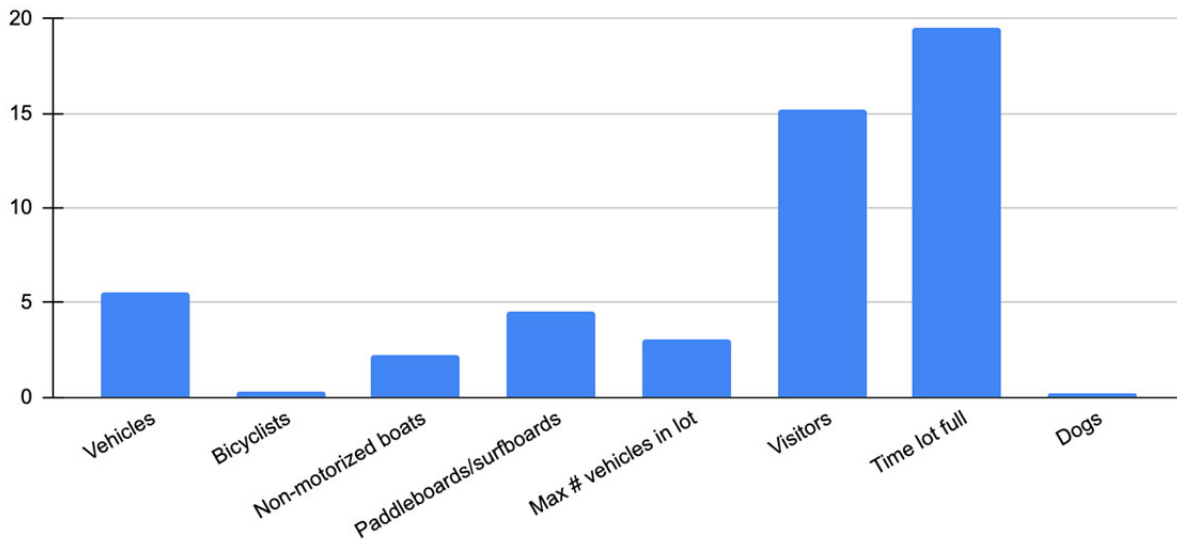
Figure 2 compares trailhead data from July of 2023 and 2022. Please note that Chilmark Pond was attended for 10 days in July 2023 and 2 days in July 2022. The difference in the number of days attended was not significantly different (t-test,  $p = 0.63$ ). The average number of vehicles, bicyclists, visitors, and dogs was similar across the years (t-test,  $p = 0.76$ ). July 2022 had about five times the number of non-motorized boats than in July 2023. The trailhead was full in July 2023 for nearly 10 times more minutes on average than the trailhead was full in July 2022.

Figure 2: July 2022 and July 2023 Daily Averages Compared



The July daily averages showed low property usage. On average, there were 15 visitors, 2 non-motorized boats, 5 paddleboards/surfboards, 3 vehicles in the lot, and the amount of time the lot was full was under 20 minutes (Figure 3).

Figure 3: July 2023 Daily Averages



## Data tables:

Table 2: Number of days attended in 2023 and 2022

# days attended	2023	2022
June	4	0
July	10	2
August	0	5
September	0	1

Table 3: Trailhead usage for June 12th - July 31st

	Daily Average:	Total:
Vehicles	7.22	65
Bicyclists	0.22	2
Non-motorized boats	9.22	83
Paddleboards/surfboards	2.11	19
Max # vehicles in lot	3.11	28
Visitors	16.00	144
Time Lot full (min)	2.22	20
Dogs	1.00	9

Table 4: Average trailhead usage in 2023 and 2022

Trailhead usage 2023 and 2022	23 Average:	22 Average:
Vehicles	5.29	21.67
Bicyclists	0.21	0.67
Non-motorized boats	2.00	27.67
Paddleboards/surfboards	5.64	6.33
Max # vehicles in lot	2.79	9.33
Visitors	15.86	48.00
Time Lot full	13.93	6.67
Dogs	0.14	3.00

**Table 5: Daily Averages for July 2023 and July 2022**

July	23 Daily AVG	22 Daily AVG
Vehicles	5.5	7
Bicyclists	0.3	0
Non-motorized boats	2.2	11.5
Paddleboards/surfboards	4.5	0
Max # vehicles in lot	3.1	4.5
Visitors	15.2	18
Time lot full	19.5	0
Dogs	0.2	2

**Table 6: 2023 Monthly Data**

2023 Monthly Data		Daily AVG	Total
June	Vehicles	3.33	19
	Bicyclists	0	0
	Non-motorized boats	0.75	3
	Paddleboards/surfboards	8.5	34
	Max # vehicles in lot	2	8
	Visitors	17.5	70
	Time Lot full	0	0
	Dogs	0	0
		Daily AVG	Total
July	Vehicles	5.5	55
	Bicyclists	0.3	3
	Non-motorized boats	2.2	25

	Paddleboards/surfboards	4.5	45
	Max # vehicles in lot	3.1	31
	Visitors	15.2	152
	Time Lot full	19.5	195
	Dogs	0.2	2
		Daily AVG	Total
August	Vehicles	0	0
	Bicyclists	0	0
	Non-motorized boats	0	0
	Paddleboards/surfboards	0	0
	Max # vehicles in lot	0	0
	Visitors	0	0
	Time Lot full	0	0
	Dogs	0	0

**Table 7: Summer 2023 Daily Averages and Totals**

Summer 2023 Total:	Daily Average:	Total:
Vehicles	5.29	74
Bicyclists	0.21	3
Non-motorized boats	2.00	28
Paddleboards/surfboards	5.64	79
Max # vehicles in lot	2.79	39
Visitors	15.86	222
Time Lot full	13.93	195
Dogs	0.14	2

**Anecdotes:**

Per the recommendations in past reports for this property regarding boating equipment being left overnight and/or blocking the boardwalk, the summer ranger manager checked this property twice a week throughout the peak summer season (June 12th to August 20th) — particularly during weeks Chilmark Pond Preserve was not attended by summer rangers.

Similar to last summer, there were no issues with surfers trespassing noted by summer rangers. If this becomes an issue, rangers could be stationed on this property during early hours and then report to other properties to fulfill their shifts (provided there is sufficient staffing).



## **Great Rock Bight Preserve:**

### **Data:**

With scenic views of the Vineyard Sound, hiking trails, and beach access, Great Rock Bight Preserve is a popular Land Bank property. For the 2023 season, the property had a total of 6,298 recorded visitors. This is a slight decrease from the 6,714 visitors in the 2022 season. Unlike last season, water testing at Great Rock Bight Preserve throughout the summer did not show a high bacterial count in the water. There are two locations where summer use data are collected at Great Rock Bight Preserve: the trailhead and the beach. During the 2023 season, the trailhead was attended by a summer ranger for 84 days between June 12th and September 10th. Since attending the trailhead is prioritized over the beach, beach data could only be collected when two summer rangers were present (one in the trailhead, one on the beach). For that reason, the beach was attended for 45 days between June 12th and September 4th this season. By comparison, the trailhead at Great Rock Bight Preserve was attended for 87 days, between June 13th and September 11<sup>th</sup>.

The number of days that the property was attended was not significantly different between 2022 and 2023 (t-test,  $p = 0.65$ ). On the weekends, the trailhead often was filled with a maximum number of spaces of 18 (and one universal access space). Notably, visitors expressed gratitude about the addition of a universal access parking space closest to the trailhead. The high-traffic nature of this property requires at least one ranger on weekends during the peak summer season to ensure the maximum capacity of the trailhead is not surpassed.

When sufficient staffing numbers allow for it, a beach ranger should be present to enforce the property rules including property boundaries, dog policies, and preventing beachgoers from climbing on dunes or removing clay. During the 45 days a summer ranger was present for beach attending, the beach had a total of 2,900 visitors during the 2023 season. Comparatively, the beach had a total of 1,580 visitors in 2022 during the 34 days a summer ranger was present. Although the number of visitors counted during the 2023 season is nearly double that of 2022, the difference in visitors counted is not statistically significant (t-test,  $p = 0.44$ )

### **Recommendations:**

1. Attending the trailhead should be prioritized on the weekends, particularly on Sundays which had the greatest number of visitors during the 2023 season. Further attending days should include Wednesdays and Thursdays when the most weekday property usage is seen.
2. Continuing the trend from last season, slightly more people violated property boundaries in 2023 than in 2022. However, the number of attending days did not differ significantly (t-test,  $p = 0.44$ ). When sufficient staffing allows, beach attending should be prioritized,

signage should continue to be maintained, and communication with the public about property rules and property boundaries should be proactively addressed.

3. After storms, trash frequently washes up at Great Rock Bight Preserve. Summer rangers attending the beach should continue the practice of walking the beach and pick up trash at multiple points during their shifts.

#### Trailhead Data:

The differences in data collected between the 2023 and 2022 trailhead data were not significant (Figures 1A and 1B). The total number of minutes the trailhead was full in 2023 was slightly higher than in 2022, yet the number of vehicles turned away was slightly lower. To interpret these two metrics, it is important to consider the reduction in the maximum number of non-UA vehicles permitted to park at Great Rock Bight Preserve: 19 spaces in 2022 and 18 spaces in 2023. Additionally, the lower number of vehicles and visitors that came to Great Rock Bight Preserve in 2023 compared to 2022 further explains the lower number of vehicles turned away this season — there were fewer people arriving in vehicles than last season. The number of bicyclists and walk-ons in 2023 increased from 2022. Overall, the data from the 2023 and 2022 seasons show similar trends for summer property usage at Great Rock Bight Preserve (t-test,  $p = 0.79$ ).

**Figure 1A: Parking Data Totals**

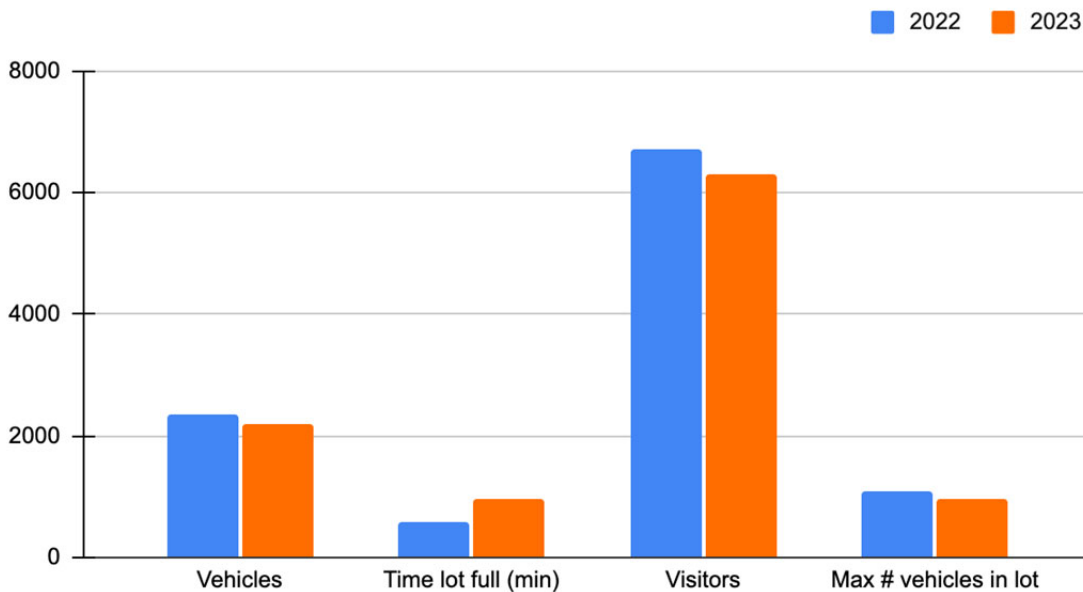
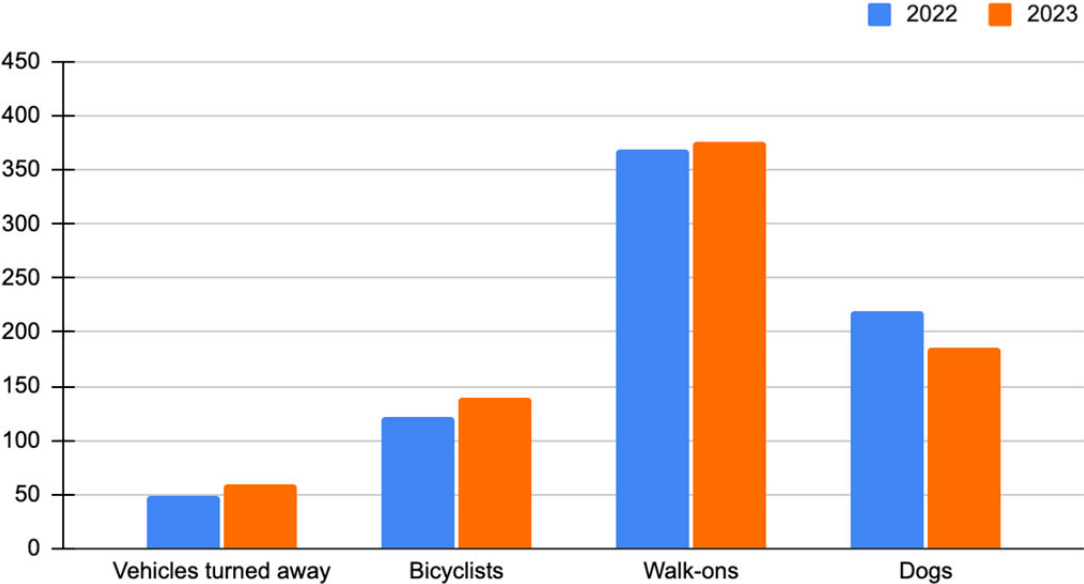
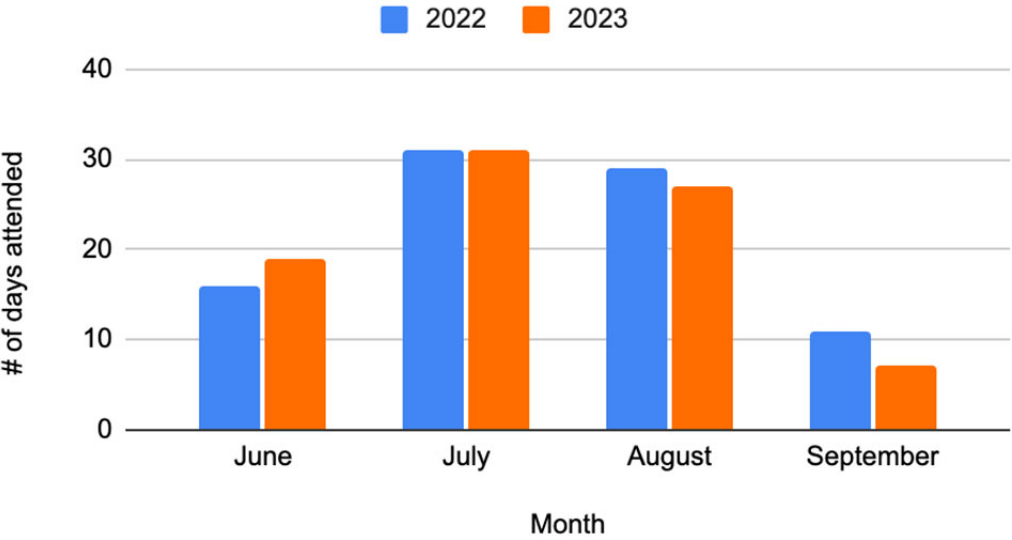


Figure 1B: Parking Data Totals



The overall consistency in the number of days the trailhead was attended in 2023 (84 days) and 2022 (87 days) contributes to the steady trends in data across the years (Figure 2).

Figure 2: Number of Days Attended 2022 vs. 2023



Beach Data:

Insignificant differences (t-test,  $p = 0.37$ ) are found in beach data totals between 2023 and 2022 (Figures 3A and 3B). In 2023, there were more visitors, people fishing, dogs turned away, and violations of property boundaries. The increased beach visitor counts this season (2,900 visitors) are likely connected to two factors: the beach was attended more often in 2023 (45 days) than in 2022 (34 days), and the higher bacterial levels in the water in 2022. In 2023, there were slightly more visitors who violated property boundaries — 77 incidences of property boundary violation this season compared to 60 incidences of property boundary violation last season.

Figure 3A: Total Beach Visitors

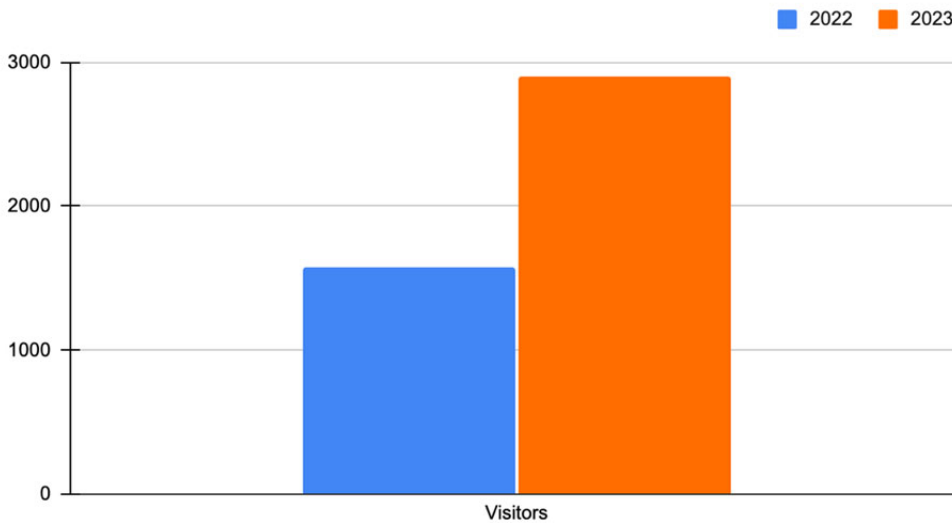
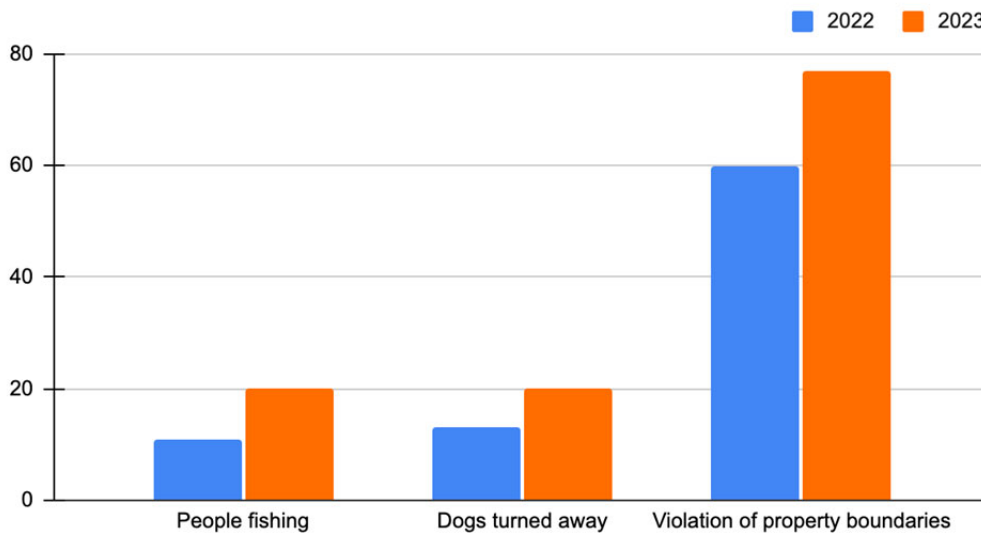
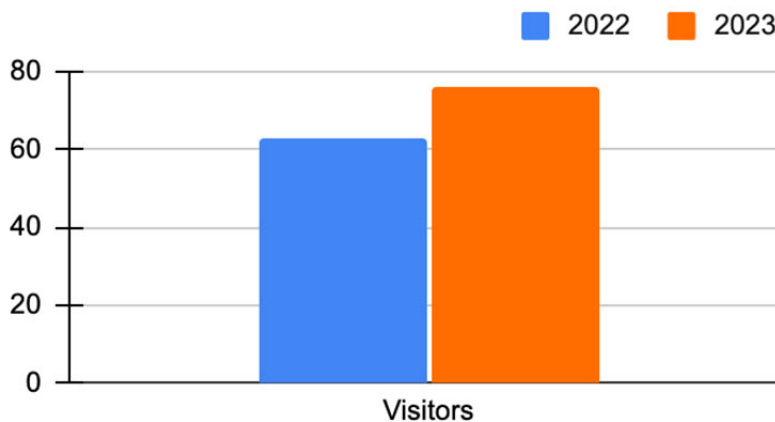


Figure 3B: Beach Data Totals



Beach daily averages in July (Figure 4) and August (Figures 5A and 5B) were slightly greater in 2023 compared to 2022 (t-test,  $p = 0.37$  and  $p = 0.504$  respectively). Importantly, the number of days the beach at Great Rock Bight Preserve was attended in July 2023 (24 days) was double that of July 2022 (12). The daily average for beach visitors in July 2023 was 75.83 compared to 60.54 visitors in July 2022. The higher incidence of beach visitors violating property boundaries in August 2022 than in August 2023 may be attributed to the greater number of days in August the beach was attended in 2022.

**Figure 4: July Daily Average Visitors**



**Figure 5A: August Daily Average Visitors**

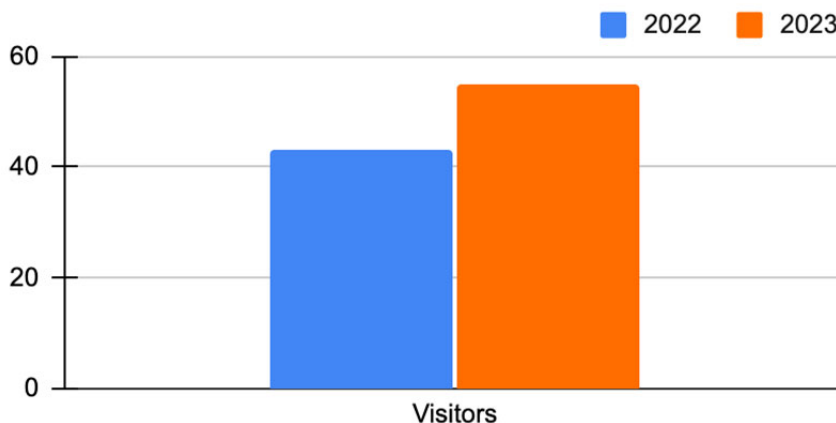
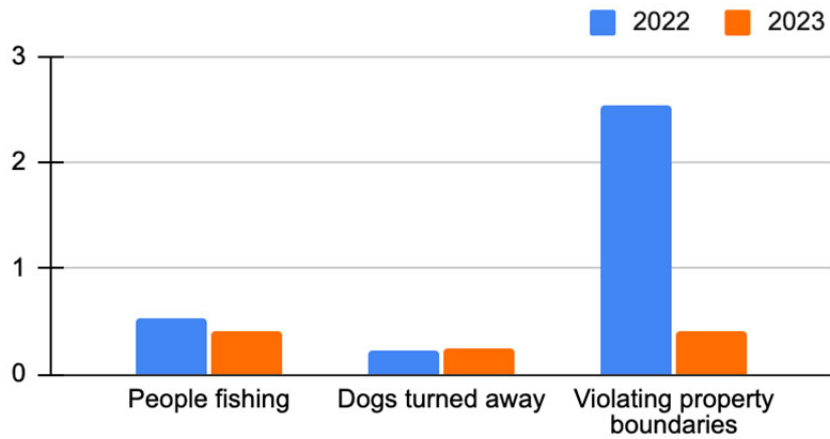


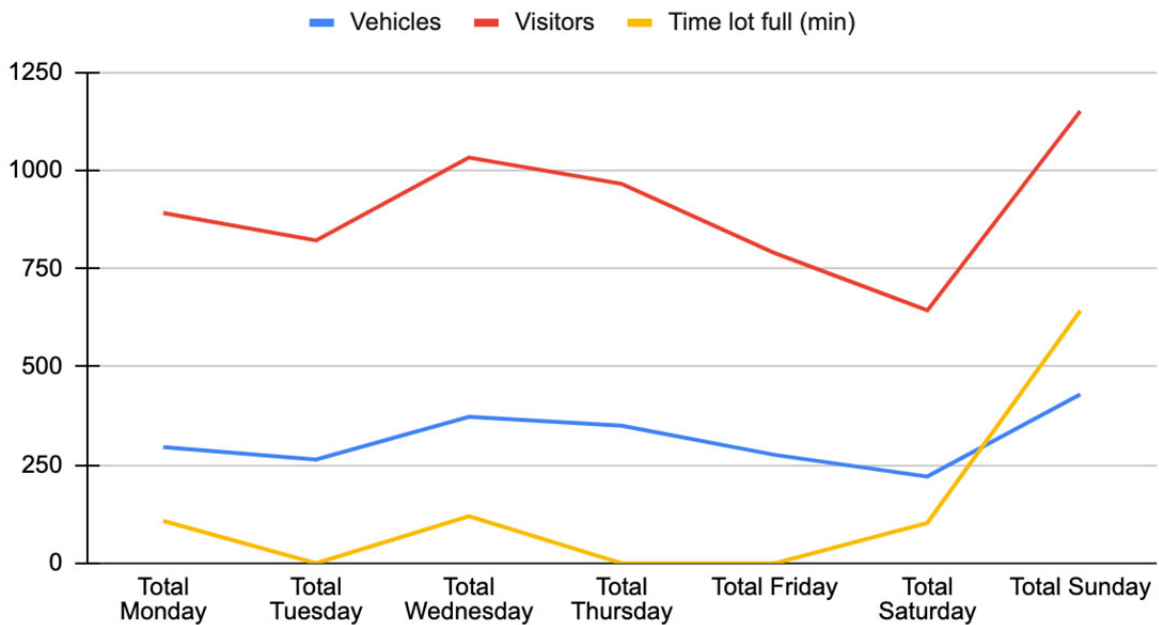
Figure 5B: August Daily Averages



General Property Usage:

While not significantly different, the most popular days of the week were Wednesdays, Thursdays, Saturdays, and Sundays with the greatest number of visitors, vehicles, and minutes the trailhead is full. Additionally, Tuesdays and Wednesdays also saw a high number of visitors.

Figure 6: Days of the Week Totals





	Time lot full (min)	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	Dogs	1.63	31	3.667	1.67	2.67	0.67	0.50	0.00	2.00
		Daily AVG	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
July	Vehicles	30.19	936.00	26	33.50	26.25	28.50	21.60	34.60	38.40
	Bicyclists	1.97	61.00	1.75	2.25	3.50	1.50	1.20	2.00	1.80
	Walk-ons	5.32	168.00	4.25	7.00	4.00	4.25	4.00	8.40	5.20
	Visitors	87.58	2715.00	75.75	93.25	71.50	82.00	59.80	103.00	118.80
	Max # vehicles in lot	14.35	445.00	14	12.50	10.50	10.50	9.20	17.00	24.20
	Vehicles turned away	2.06	35.00	1.5	0.00	0.00	0.00	0.00	1.00	4.80
	Time lot full (min)	22.71	704.00	27	0.00	0.00	0.00	0.00	20.60	98.60
	Dogs	3.68	58.00	1.5	2.00	1.25	1.00	0.80	1.20	4.40
		Daily AVG	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
August	Vehicles	26.77	696	23.2	21.20	33.60	30.50	19.50	25.00	37.00
	Bicyclists	1.62	42	1.2	1.40	2.40	0.25	1.25	5.00	2.67
	Walk-ons	4.15	108	4.2	2.80	3.60	6.00	5.25	2.00	3.33
	Visitors	77.50	2015	72.2	59.80	101.80	82.50	58.00	67.00	99.00



	Max # vehicles in lot	11.26	291	14.2	7.40	11.60	11.50	7.50	14.00	16.00
	Vehicles turned away	0.78	21	0	0.00	1.60	0.00	0.00	0.00	4.33
	Time lot full (min)	9.07	245	0	0.00	24.00	0.00	0.00	0.00	41.67
	Dogs	2.81	71	2.6	3.00	2.80	2.00	2.75	1.00	4.00
		Daily AVG	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
September	Vehicles	27.00	216	24	21.00	31.50	31.50	27.50		35.00
	Bicyclists	1.33	11	3	2.00	2.00	2.00	1.50		0.00
	Walk-ons	5.44	47	12	3.00	3.00	3.00	5.50		6.50
	Visitors	75.13	588	68	55.00	79.50	79.50	78.00		104.00
	Max # vehicles in lot	10.13	80	12	9.00	11.00	11.00	8.00		13.00
	Vehicles turned away	0.47	3	0	0.00	0.00	0.00	0.00		1.50
	Time lot full (min)	6.33	25	0	0.00	0.00	0.00	0.00		12.50
	Dogs	3.27	25	3	2.00	4.50	4.50	3.00		3.50

**Table 3: Monthly beach data with daily AVG (average), totals, and averages by day of the week (when available)**

Monthly Data		Daily AVG	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
June	Visitors	43.44	391.00		26.500	53.667	37.00	37.00		
	# of visitors fishing	0.11	1		0.00	0.00	0.50	0.00		
	Dogs turned away	0.44	4		0.00	1.00	0.00	1.00		
	Violations of property boundaries	1.11	10		0.00	1.67	1.00	1.00		
		Daily AVG	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
July	Visitors	75.83	1831	72.50	70.25	60.25	78.00	59.50	95.75	103.00
	# of visitors fishing	0.58	14	1.00	1.25	0.25	0.00	0.50	0.00	1.33
	Dogs turned away	0.54	13	1.00	0.50	0.50	0.67	0.25	0.00	1.33
	Violations of property boundaries	2.61	62	0.50	4.75	1.50	2.33	2.00	2.50	3.67
		Daily AVG	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
August	Visitors	54.92	659	39.50	48.50	85.00	48.50	59.50		
	# of visitors fishing	0.42	5	0.00	0.00	1.00	0.00	1.50		

	Dogs turned away	0.25	3	0.00	0.00	0.00	0.50	1.00		
	Violations of property boundaries	0.42	5	0.00	0.25	0.50	0.00	1.50		
		Daily AVG	Total	AVG Monday*	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
September	Visitors	19	19	19.00						
	# of visitors fishing	0.00	0	0.00						
	Dogs turned away	0.00	0	0.00						
	Violations of property boundaries	0.00	0	0.00						

\*Beach attended once in September (September 4th) for 2 hours.

Table 4: Beach usage for June 12th - September 4th

Summer 2023:	Average:	Total:
Visitors	64.444	2,900
People fishing	0.444	20
Dogs turned away	0.444	20
Violations of property boundaries	1.711	77

**Anecdotal Notes:**

The signage at the overlook and on the beach displaying the dog policy and property boundaries at Great Rock Bight Preserve was helpful for summer rangers to reference when communicating property rules to visitors. Following the trend from last season, the number of visitors arriving by bicycle this season increased. Bike access should be encouraged as vehicle traffic increases during the summer season. This may help decrease the number of vehicle visitors turned away due to the trailhead filling.

Visitors consistently complimented the newly replaced stairs at Great Rock Bight Preserve. The Land Bank crew diligently maintained the trails and stairs throughout the season.

After several storms this season, trash washed up on the beach. Summer rangers attending the beach walk the beach multiple times during their shifts to look for and pick up trash.

The updated dog policy of no dogs on the beach from 10 - 6 to no dogs from April 1-August 31 resulted in fewer dogs on the property while rangers were present.

## **Manaquayak Preserve**

### **Data:**

In the 2023 season, Manaquayak Preserve was staffed for 122 days. Comparatively, the preserve was attended for 109 days in 2022. Summer rangers were primarily stationed at two data collection locations: the Wintergreen Lane trailhead and the swimming perch. Based on the data collected at both locations, there were a total of 10,517 recorded visitors to Manaquayak Preserve during the 2023 summer season. The Lambert's Cove trailhead was attended in a limited capacity with 26 days attended in 3-hour shifts taking place between 2-5 p.m. on weekdays or 7-10 a.m. on Saturdays. Data on visitors arriving at Manaquayak Preserve through the Lambert's Cove trailhead were collected by summer rangers at the swimming perch.

Manaquayak Preserve had similar overall property usage between 2023 and 2022 (t-test,  $p = 0.45$ ). Like last season, the majority of visitors accessed the swimming perch from the Wintergreen Lane trailhead in the 2023 season. Consistent with the monthly data trends from 2022, July and August showed the greatest property usage at Manaquayak Preserve in 2023.

The first day of attending in the 2023 season was June 5th and the last day of attending was October 5th. In 2022, Manaquayak Preserve was attended between June 13th and September 30th. The higher visitor counts recorded in June 2023 may be attributed to the greater number of days attended (8 more days in 2023 than in 2022). This season, the preserve was attended for a total of 1,169 hours. It was attended for 1,159 hours in 2022.

### **Recommendations:**

1. Rangers should be prioritized at the Wintergreen Lane trailhead and at the swimming perch due to the low number of parking spaces and to enforce swimming perch rules. When staffing allows, station a summer ranger at the Lambert's Cove trailhead.
2. Continue to provide rangers with detailed property rules and a property map. Explaining why certain rules are in place (such as no diving), can help them enforce and inform the public. Encourage rangers to communicate any violations of property rules or boundaries to Land Bank staff.
3. Continue to adjust the angle of the swimming perch as needed when pond water levels are low.

### **Graphics:**

Property usage at the Wintergreen Lane trailhead did not significantly differ between 2023 and 2022 (t-test,  $p = 0.25$ ). All property metrics decreased between 2023 and 2022 except for the total number of walk-on visitors, but this did not indicate a significant difference in property usage across the two years (t-test,  $p = 0.46$ ). Interestingly, the number of walk-on visitors nearly doubled (42%) in 2023 with 1,649 walk-on visitors compared to 952 walk-on

visitors in 2022. Overall, there were slightly fewer visitors recorded at the Wintergreen trailhead (Figure 1A). In 2023, the Wintergreen trailhead had a total of 4,016 visitors. In 2022, there were 4,682 visitors. Consistent with the 2022 Wintergreen trailhead monthly property usage data, July and August had the greatest property usage throughout the 2023 season (Figure 1B).

Summer rangers began attending one week earlier in June of 2023 (June 5th) than in June of 2022 (June 13th), which may account for the greater number of visitors recorded this season. Notably, the higher visitor counts recorded in June 2023 did not coincide with higher vehicle or swimmer counts.

The number of visitors for June and September was significantly different between 2023 and 2022 (Figure 1B, t-test,  $p = 0.047$ ). This difference is most clearly seen in the number of visitors coming to Manaquayak Preserve in June and September. Property usage for July and August was not significantly different between 2023 and 2022 (t-test,  $p=0.083$ ). Since only 5 days in October 2023 were attended and October was not attended in 2022, October is excluded from the monthly comparison graphics.

Figure 1A: Wintergreen Trailhead Total Property Usage

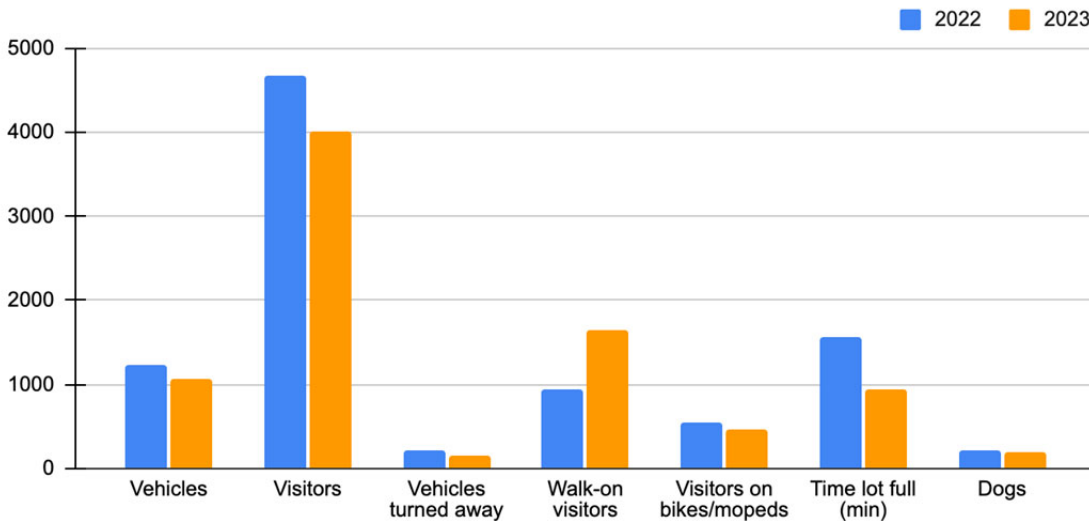
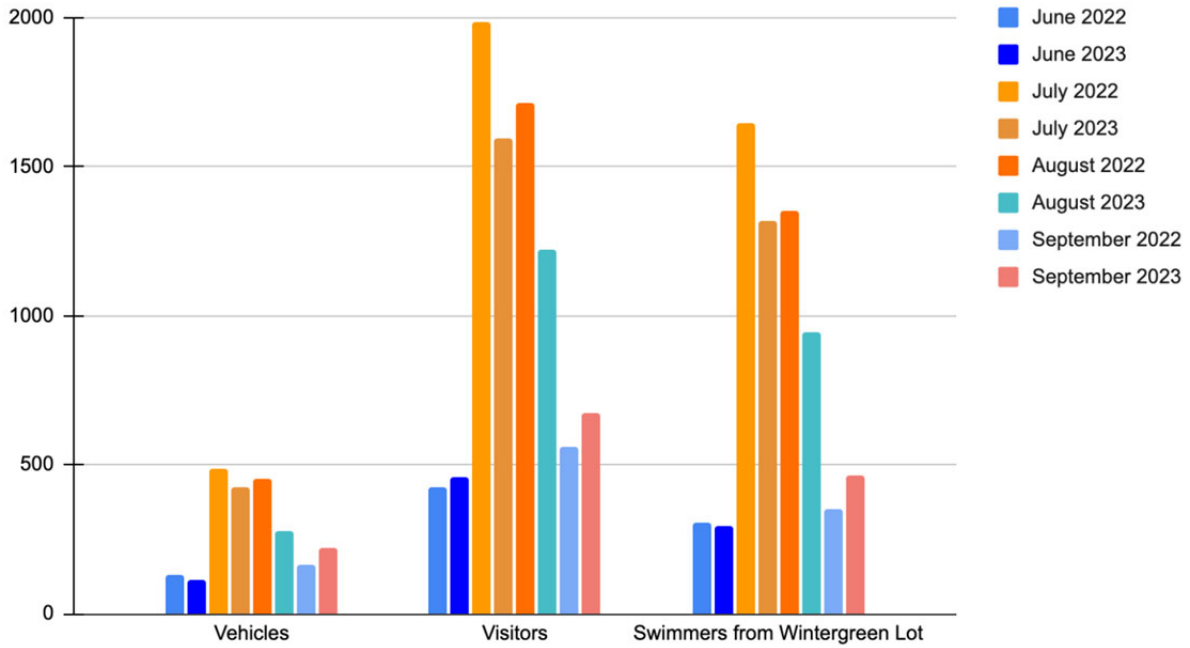
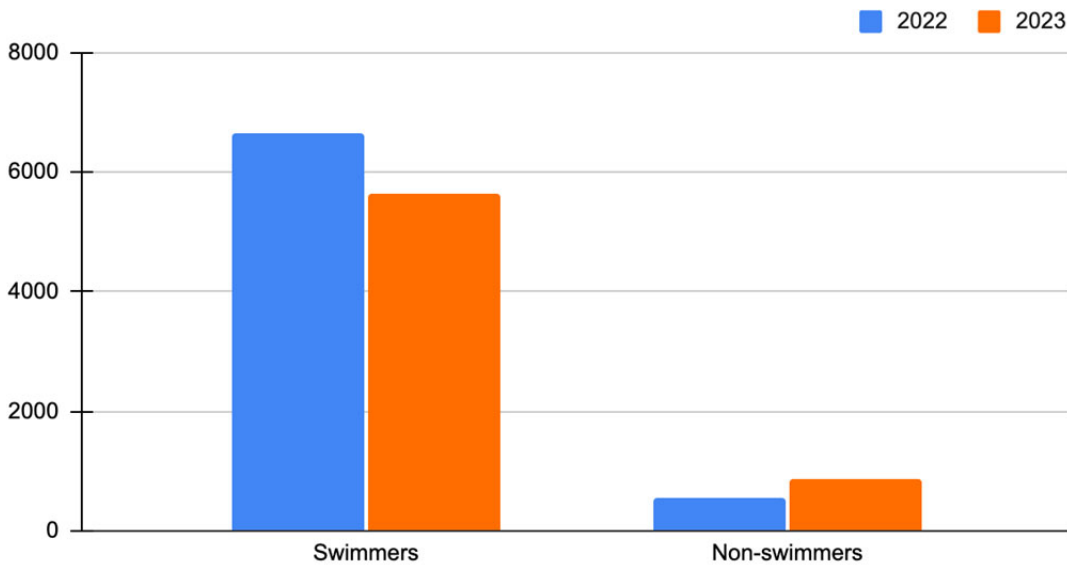


Figure 1B: Wintergreen Trailhead Monthly Property Usage



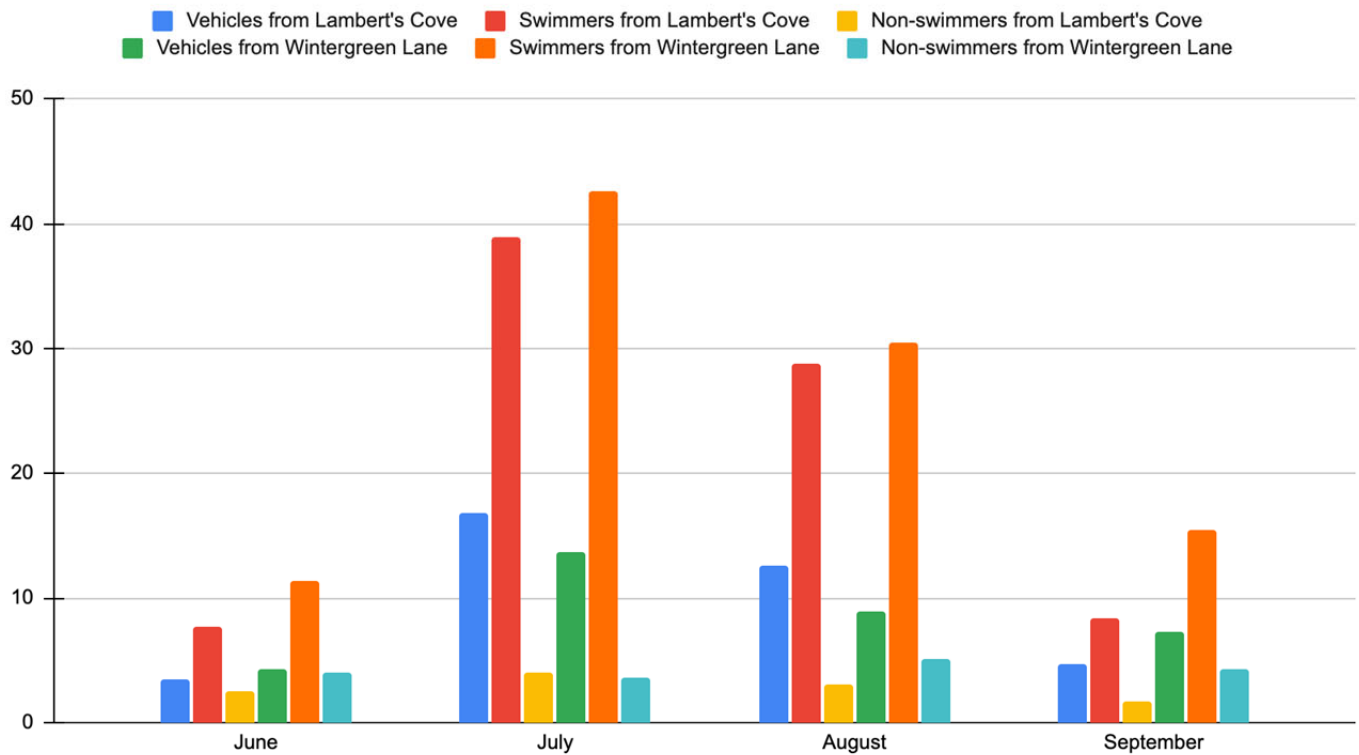
Swimming perch usage was not significantly different between 2023 and 2022 (Figure 2, t-test,  $p = 0.68$ ). There were slightly more swimmers (6,650) in 2022 than in 2023 (5,641). In 2023, there were more non-swimming visitors (864) than in 2022 (550).

Figure 2: Total Swimming Perch Usage



The busiest month was July followed by August (Figure 3). The difference between monthly swimming perch usage did not significantly differ (t-test,  $p = 0.64$ ). Most visitors (3,577) came to the swimming perch from the Wintergreen Lane trailhead, while the other 2,918 swimming perch visitors entered through the Lambert’s Cove trailhead. The difference between the average number of swimmers visiting the property through the Wintergreen Lane and Lambert’s Cove trailheads was significant (t-test,  $p=0.03$ ).

**Figure 3: Average Daily Swimming Perch Usage**



**Data Tables:**

Table 1A: Total and Daily Average Property Usage

Overall	2023 Total	2023 Daily Average
Visitors	10517	37.28
Vehicles	2201	8.1
Visitors >6	182	2.301



Swimmers >10	272	3.323
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Table 1B: Total Swimming Perch Usage

Swimming Perch	Total	Daily Average
Hours staffed	1169	9.3
# of vehicles from Lambert's Cove	1137	8.1
Swimmers from Lambert's Cove	2573	17.5
# non-swimming from Lambert's Cove	345	2.7
Swimmers from Wintergreen Lane	3068	21.8
# non-swimming from Wintergreen Lane	509	3.7
Maximum number of swimmers (highest number of swimmers in the pond at one time for each hour)	2160	15.2
Total number of visitors	6495	45.8
Total swimmers	5641	39.6
Total non-swimmers	854	3.2

Table 1C: Total Wintergreen Lane Trailhead Usage

Wintergreen Lane Trailhead	Total	Daily Average
Hours staffed	1162	9.2
Total vehicles at Wintergreen Lane	1064	8.1
Vehicles turned away	150	1.1
Visitors in vehicles	1906	13.9
Walk-on visitors	1649	11.6
Visitors on bikes/mopeds	461	3.3
Total number of visitors	4016	28.8
Maximum # of vehicles in lot	325	2.5
Time lot full (minutes)	938	6.1
Dogs	195	1.5
Horses	2	0

Table 2A: June Swimming Perch Usage

June Swimming Perch	Total	Daily Average
Hours staffed	257	9.9
# of vehicles from Lambert's Cove	90	3.5
Swimmers from Lambert's Cove	201	7.7
# non-swimming from Lambert's Cove	66	2.5
Swimmers from Wintergreen Lane	295	11.3
# non-swimming from Wintergreen Lane	105	4.0
Maximum number of swimmers (highest number of swimmers in the pond at one time for each hour)	203	7.8
Total number of visitors	667	25.7
Visitors >10	8	0.3
Swimmers >10	10	0.4
Swimmers	475	19
Non-swimmers	171	3.3

Table 2B: June Wintergreen Lane Trailhead Usage

June Wintergreen Lane Trailhead	Total	Average
Hours staffed	251	9.7
Total vehicles	113	4.3
Vehicles turned away	19	0.7
Visitors in vehicles	206	7.9
Walk-on visitors	180	6.9
Visitors on bikes/mopeds	72	2.8
Total number of visitors	458	17.6
Maximum # of vehicles in lot	47	1.8
Time lot full (minutes)	60	2.3
Dogs	26	1.0
Horses	0	0

Table 3A: July Swimming Perch Usage

July Swimming Perch	Total	Daily Average
Hours staffed	341	11
# of vehicles from Lambert's Cove	503	16.8
Swimmers from Lambert's Cove	1211	39
# non-swimming from Lambert's Cove	122	4
Swimmers from Wintergreen Lane	1317	42.7
# non-swimming from Wintergreen Lane	110	3.6
Maximum number of swimmers (highest number of swimmers in the pond at one time for each hour)	927	30.4
Total number of visitors	2769	89.5
Visitors >10	76	2.5
Swimmers >10	103	3.3
Swimmers	2528	81.7
Non-swimmers	232	3.8

Table 3B: July Wintergreen Lane Trailhead Usage

July Wintergreen Lane Trailhead	Total	Daily Average
Hours staffed	339	10.9
Total vehicles	424	13.7
Vehicles turned away	63	2.0
Visitors in vehicles	800	25.8
Walk-on visitors	616	19.9
Visitors on bikes/mopeds	182	5.7
Total number of visitors	1597	51.5
Maximum # of vehicles in lot	109	3.5
Time lot full (minutes)	763	24.4
Dogs	52	1.6

Horses	0	0
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Table 4A: August Swimming Perch Usage

August Swimming Perch	Total	Daily Average
Hours staffed	306	9.9
# of vehicles from Lambert's Cove	388	12.5
Swimmers from Lambert's Cove	892	28.8
# non-swimming from Lambert's Cove	96	3.1
Swimmers from Wintergreen Lane	946	30.5
# non-swimming from Wintergreen Lane	157	5.1
Maximum number of swimmers (highest number of swimmers in the pond at one time for each hour)	665	21.5
Total number of visitors	2091	67.5
Visitors >10	35	1.1
Swimmers >10	65	2.1
Swimmers	1838	61.3
Non-swimmers	253	4.1

Table 4B: August Wintergreen Lane Trailhead Usage

August Wintergreen Lane Trailhead	Total	Daily Average
Hours staffed	300	9.7
Total vehicles	277	8.9
Vehicles turned away	43	1.4
Visitors in vehicles	501	16.2
Walk-on visitors	580	18.7
Visitors on bikes/mopeds	142	4.6
Total number of visitors	1221	39.4
Maximum # of vehicles in lot	85	2.7
Time lot full (minutes)	40	1.3

Dogs	63	2.0
Horses	2	0.1

Table 5A: September Swimming Perch Usage

September Swimming Perch	Total	Daily Average
Hours staffed	225	7.5
# of vehicles from Lambert's Cove	140	4.7
Swimmers from Lambert's Cove	250	8.3
# non-swimming from Lambert's Cove	50	1.7
Swimmers from Wintergreen Lane	465	15.5
# non-swimming from Wintergreen Lane	129	4.3
Maximum number of swimmers (highest number of swimmers in the pond at one time for each hour)	340	11.3
Total number of visitors	894	29.8
Visitors >10	30	1
Swimmers >10	48	1.6
Swimmers	701	23.4
Non-swimmers	179	3

Table 5B: September Wintergreen Lane Trailhead Usage

September Wintergreen Lane Trailhead	Total	Daily Average
Hours staffed	232	7.7
Total vehicles	220	7.3
Vehicles turned away	23	0.8
Visitors in vehicles	361	12.0
Walk-on visitors	253	8.4
Visitors on bikes/mopeds	58	1.9
Total number of visitors	672	22.4
Maximum # of vehicles in lot	75	2.5
Time lot full (minutes)	75	2.5

Dogs	49	1.6
Horses	0	0

Table 6A: October Swimming Perch Usage

October Swimming Perch	Total	Daily Average
Hours staffed	40	8
# of vehicles from Lambert's Cove	16	3.2
Swimmers from Lambert's Cove	19	3.8
# non-swimming from Lambert's Cove	11	2.2
Swimmers from Wintergreen Lane	45	9
# non-swimming from Wintergreen Lane	8	1.6
Maximum number of swimmers (highest number of swimmers in the pond at one time for each hour)	25	5
Total number of visitors	83	16.6
Visitors >10	33	6.6
Swimmers >10	46	9.2
Swimmers	64	12.8
Non-swimmers	19	1.9

Table 6B: October Wintergreen Lane Trailhead Usage

October Wintergreen Lane Trailhead	Total	Daily Average
Hours staffed	40	8
Total vehicles	30	6
Vehicles turned away	2	0.4
Visitors in vehicles	38	7.6
Walk-on visitors	20	4
Visitors on bikes/mopeds	7	1.4
Total number of visitors	65	13
Maximum # of vehicles in lot	9	1.8

Time lot full (minutes)	0	0
Dogs	5	1
Horses	0	0

**Table 7:** Total Lambert's Cove Trailhead Usage

Lambert's Cove Trailhead	Total	Daily Average
Hours staffed	78	3
Total vehicles at Lambert's Cove	118	4.5
Vehicles turned away	15	0.6
Visitors in vehicles	202	7.8
Walk-on visitors	27	1.0
Visitors on bikes/mopeds	3	0.1
Total number of visitors	233	9.0
Maximum # of vehicles in lot	60	2.3
Time lot full (minutes)	685	26.3
Dogs	3	0.1
Horses	0	0

**Anecdotes:**

Upon review of the Manaquayak Preserve management plan, Land Bank staff revised the sheets for collecting data at this property to document additional relevant property usage such as the maximum number of visitors swimming at one time for each hour.

The swimming perch ladder and dock were adjusted to meet the needs of visitors entering and exiting the pond. The pond water level did not fluctuate as much as last season.

Consistent with last season's findings, summer rangers working the shift between 7:00 a.m. and 10:00 a.m. recorded few visitors.

Summer rangers received comments from visitors about the property rules posted at the swimming perch. Updating the signage to display the property rules in larger font size and slightly raising the height of the signpost so it can be closer to eye level may be helpful.

## **Sepiessa Point Reservation**

### **Data:**

Sepiessa Point Reservation was attended for 37 days between June 12th and August 8th in the 2023 season. By comparison, the property was attended for 31 days between June 16th - September 2nd in 2022. Like last year, data this year were collected at the northerly trailhead (the first parking area closest to the entrance of the property). When compared to 2022, total and average property use in 2023 decreased across all metrics (t-test,  $p = 0.015$ , and t-test,  $p = 0.014$ ). Importantly, Sepiessa Point Reservation was only attended for two days in August (August 1st and 8th, both of which were Tuesdays) this season. In 2022, there was a summer ranger attending for 10 days in August.

Most visitors were recorded in July, followed by August and June. The most visited days of the week were Fridays, with an average of 67 visitors, followed by Thursdays and Saturdays, both of which had an average of 63.5 visitors. There were a total of 2,038 recorded visitors in the 2023 season. 238 were walk-on visitors, 102 arrived by bicycle, 153 brought non-motorized boats (such as kayaks or paddleboards), and 34 brought motorized boats trailhead by vehicles. As has been noted in past years, there continue to be minor issues related to visitors walking dogs without a leash and picking up after dogs.

Ocean beach access was available to visitors via an agreement with the Trustees of Reservations at Long Point Reservation. This agreement was noted on multiple signs, marked with flags, and instructions were provided by summer rangers.

The high cyanobacteria counts at Tisbury Great Pond have likely impacted the property's visitors. This season, cyanobacteria levels tested high in late July 2023 and an algal bloom advisory was issued: on July 20, 2023, the Chilmark and West Tisbury Boards of Health recommended against the recreational use of Tisbury Great Pond due to the potentially harmful algal bloom. This was lifted on October 17, 2023.

### **Actions to be taken:**

1. Attend Sepiessa Point on an as-needed basis over the weekend and whenever possible during the week.
2. Continue to station summer rangers at the northerly trailhead. If there is sufficient staffing, an additional summer ranger could be stationed at the southerly trailhead to enforce boat slide rules if there is a significant increase in motorized boat use that may warrant supervision.



### Graphics:

In 2023, there was a total of 2,038 visitors and 1,091 vehicles (Figure 1). The trailheads were full for a total of 215 minutes throughout the season, but no vehicles needed to be turned away. Similar to 2022, this season there were again far more non-motorized boats (153) than motorized boats trailed by vehicles.

Figure 1: Total Property Usage

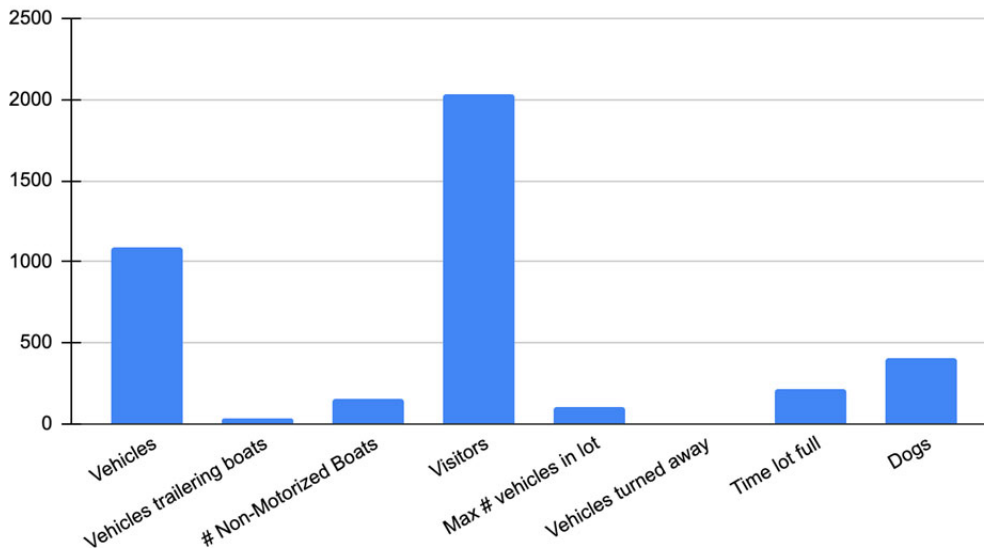
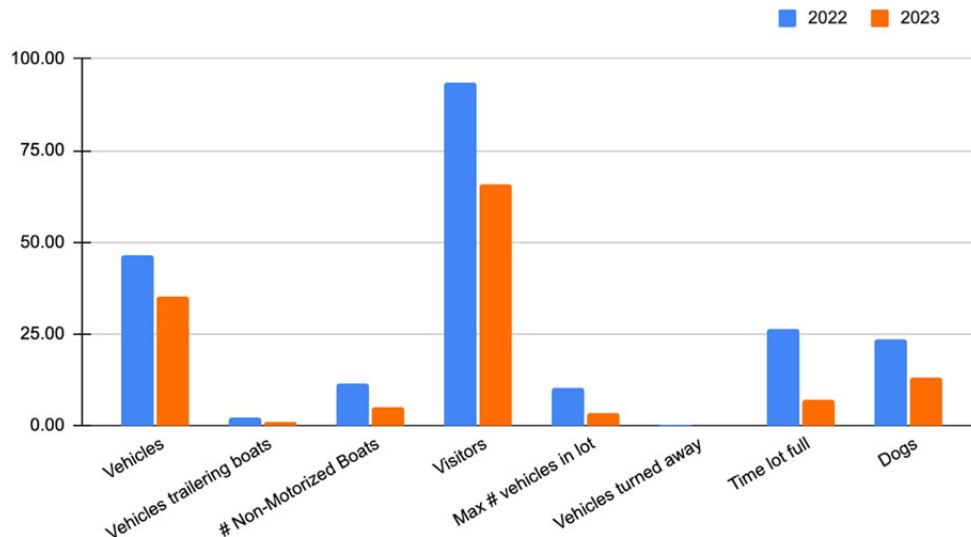


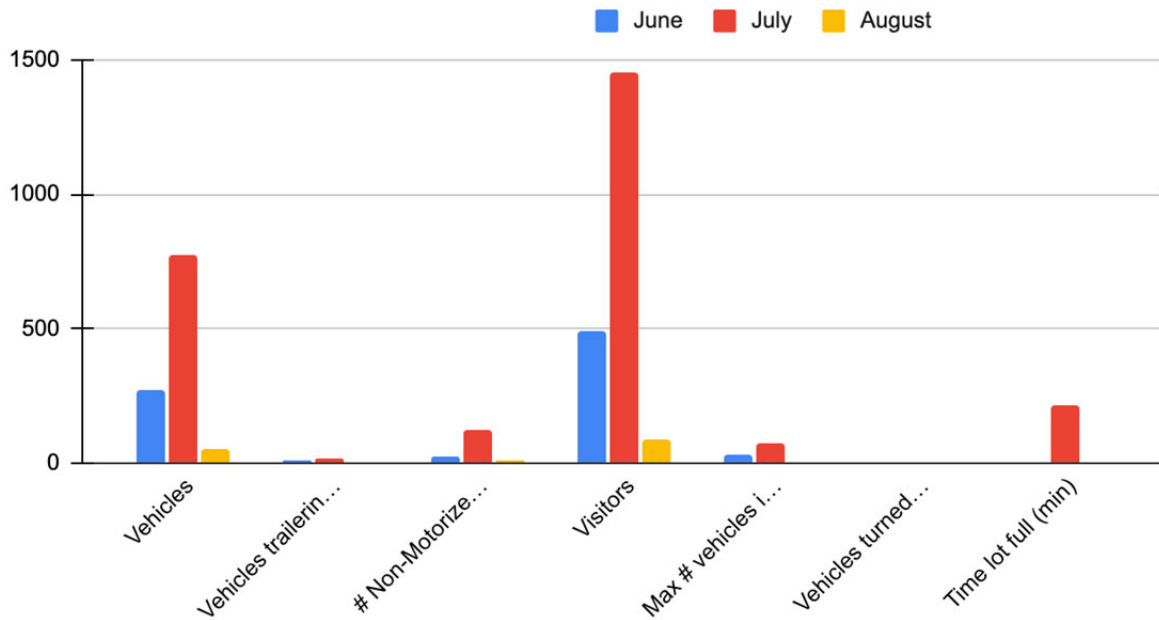
Figure 2 shows greater average property usage recorded in 2022 compared to 2023, which was significant (t-test,  $p = 0.014$ ). The decrease in average property usage in 2023 may be attributed to the high cyanobacteria levels that discouraged visitors from recreational use of Tisbury Great Pond.

Figure 2: Average Summer Property Usage



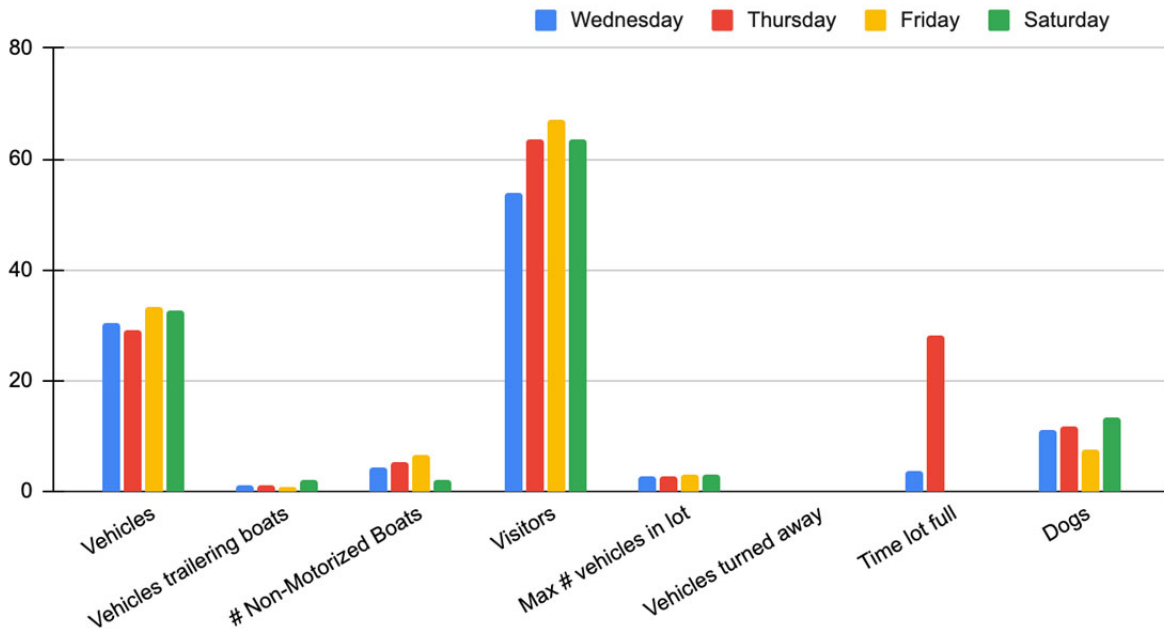
The month of July saw the greatest total property usage followed by June (Figure 3). When looking at the approximately 30% decrease in the total number of visitors in 2023 (2,068) compared to 2022 (2,898) it is important to consider two factors: the high cyanobacteria levels of Tisbury Great Pond in July and the 8 fewer days of data collection in August 2023 than in August 2022.

**Figure 3: Total Monthly Property Usage**



Fridays were the most visited days of the week in the 2023 season, closely followed by Thursdays and Saturdays (Figure 4). Thursdays had the greatest amount of time the trailheads were full with an average of 28.3 minutes. Saturday had the highest average of dogs (14) as well as the highest average of motorized boats trailered in by vehicles (2).

Figure 4: Average Weekly Property Usage



**Data Tables:**

Table 1: Property usage from June 12th - August 8th.

	Average:	Total:
Vehicles	35.19	1091
Vehicles trailering boats	1.10	34
# Non-Motorized Boats	4.94	153
Visitors	65.74	2038
Max # vehicles in lot	3.45	107
Vehicles turned away	0.00	0
Time lot full	6.94	215
Dogs	13.10	406

Table 2: Monthly property usage with daily AVG (average), totals, and averages by day of the week

Monthly Data		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
June	Vehicles	27.1	271		19	30.667	29.667	31	17	
	Vehicles trailering boats	1.2	12		0	0.333	1.667	1	0	
	# Non-Motorized Boats	2.4	24		0	2.667	2	0	5	
	Visitors	49.2	492		32	51.667	53.333	64	36	
	Max # vehicles in lot	2.9	29		4	3	2.333	3	3	
	Vehicles turned away	0	0		0	0	0	0	0	
	Time lot full	0	0		0	0	0	0	0	
	Dogs	10.6	106		8	11	13.333	14	0	
Monthly Data		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday*
July	Vehicles	30.84	771	24.333	28	30.5	29	34	36.75	29
	Vehicles trailering boats	0.8	20	0.667	0.333	1	1	1.2	1	2
	# Non-Motorized	4.68	122	3	2	4	6.25	6.4	7	2

	Boats									
	Visitors	58.24	1456	43.667	49.333	55	54.25	63.4	74.75	63.5
	Max # vehicles in lot	2.88	72	3	2.333	3.5	3	2.8	3	3
	Vehicles turned away	0	0	0	0	0	0	0	0	0
	Time lot full	8.6	215	0	0	4.5	6.75	34	0	0
	Dogs	11.28	282	19.333	9.333	10	9.25	11.4	9.5	13.5
Monthly Data		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
August	Vehicles	24.5	49	24	24.5					
	Vehicles trailering boats	1	2	0	1					
	# Non-Motorized Boats	3.5	7	2	3.5					
	Visitors	45	90	42	45					
	Max # vehicles in lot	3	6	1	3					
	Vehicles turned away	0	0	0	0					

	Time lot full	0	0	0	0					
	Dogs	9	18	8	9					

\*Sepiessa Point Reservation was only attended on one Sunday in 2023.

Table 3: Property use averages by day of the week.

Average	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday*
Vehicles	24.25	25.333	30.571	29.286	33.5	32.8	16
Vehicles trailering boats	0.5	0.714	1.286	1.167	0.8	2	2
# Non-Motorized Boats	2.167	3.429	4.429	5.333	6.6	2	2
Visitors	45	53.571	53.857	63.5	67	63.5	41
Max # vehicles in lot	2.833	3.286	2.714	2.833	3	3	3
Vehicles turned away	0	0	0	0	0	0	0
Time lot full	0	2.571	3.857	28.333	0	0	0
Dogs	9	10.429	11	11.833	7.6	13.5	9

\*Sepiessa Point Reservation was only attended on one Sunday in 2023.

**Anecdotes:**

Through the agreement made with the Trustees of Reservations, visitors to Sepiessa Point Reservation could access the ocean beach. Once signage was posted and rangers informed visitors, visitors properly accessed the ocean. No issues of trespassers were reported, indicating that the signage and the summer ranger information provided were acknowledged.

Enforcing the dog leash policy and waste collection is only possible when summer rangers are present. This season 406 dogs were recorded on the property. Trails were checked routinely throughout the summer if a summer ranger was not present. There was one incident of boating equipment being left overnight that was resolved in a timely manner.

Consistent with past years, the property usage data suggest visitors come to Sepiessa Point Reservation to hike, use non-motorized boats, bike, and walk dogs more often than to use motorized boats. This finding affirms the importance of stationing summer rangers at the northerly trailhead rather than the southerly trailhead. This way summer rangers can collect more accurate data on dogs, people walking/hiking, and the use of non-motorized boats as visitors enter the property.

## **Tashmoo Preserve**

### **Data:**

A popular property that offers visitors access to the Vineyard Sound and Lake Tashmoo, Tashmoo Preserve had a total of 8,634 recorded visitors in the 2023 season. Due to the popularity of this property, the trailhead fills frequently throughout the summer. In the 78 days Tashmoo Preserve was attended by a summer ranger, the trailhead had a total 2,579 vehicles and was full for 2,924 minutes (48.7 hours). In the 86 days summer rangers attended Tashmoo Preserve in 2022, the property had 11,028 visitors, 3,116 vehicles, and the lot was full for 90.6 hours. Based on past reports, summer rangers were provided with in-depth instruction on how to guide visitors arriving in vehicles into designated parking spots at the start of the 2023 season.

Consistent with the 2022 season, Tashmoo Preserve's busiest months were July and August, with Saturday, Sunday, Friday, and Wednesday having the most property usage. As is typical with this property, visitors made comments to summer rangers about the conditions of Herring Creek Road.

The number of days attended was similar in 2023 and 2022 (t-test,  $p = 0.68$ ). Importantly, Tashmoo Preserve was attended between June 12th and September 7th in 2023. It was attended between June 13th and September 18th in 2022. When comparing data from the 2023 season to the 2022 season, it is worth considering the difference in the number of days Tashmoo Preserve was attended in September (3 days in 2023) and (16 days 2022).

### **Actions to be taken:**

1. Prioritize this property when scheduling rangers due to the number of visitors.
2. If visitors arrive by vehicle and are unable to park due to the lot being full, summer rangers are encouraged to offer alternative beach destinations nearby (as long as the visitors are amenable to suggestions).
3. Communicate between rangers, the land bank, and the town when changes are made.
4. When possible, inform visitors of property boundaries to prevent trespassing onto abutting properties.

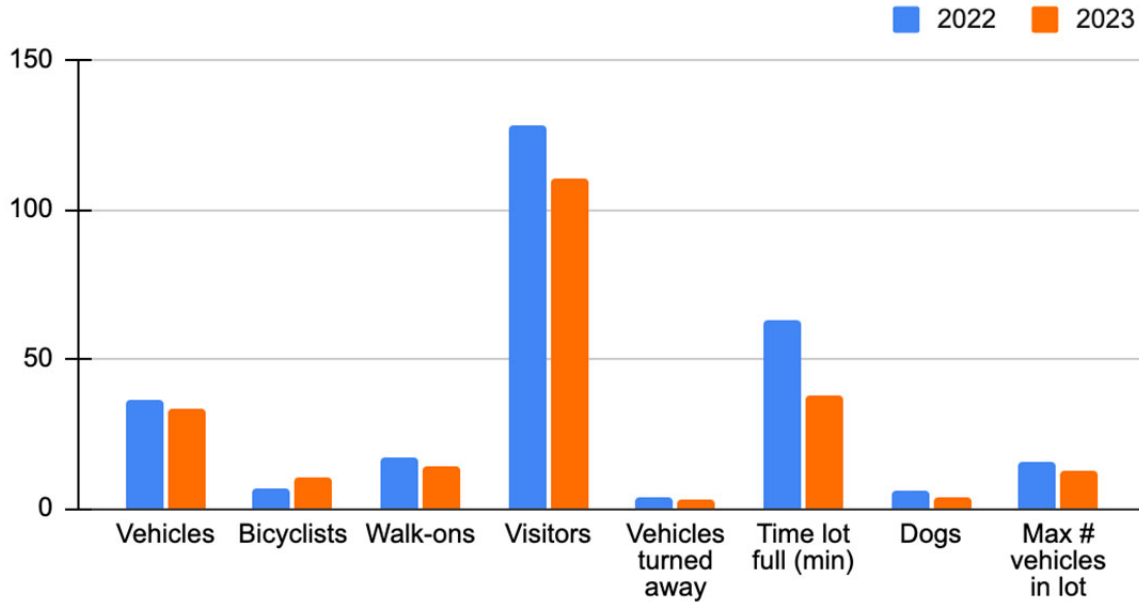
### **Graphics:**

Tashmoo Preserve saw a lower average property use in 2023 compared to 2022 (Figure 1). This decrease in property usage recorded was not statistically significant (t-test,  $p = 0.09$ ). Notably, the average number of bicyclists visiting Tashmoo Preserve was the sole metric that increased in 2023 compared to 2022. On average, 6.6 visitors arrived by bicycle in 2022, while 10.4 visitors arrived by bicycle in 2023. Also, although the average number of vehicles coming to Tashmoo Preserve on any given day did not vary greatly between the 2023 season (33 vehicles) and the 2022 season (36 vehicles), the average time the lot was full varied across the



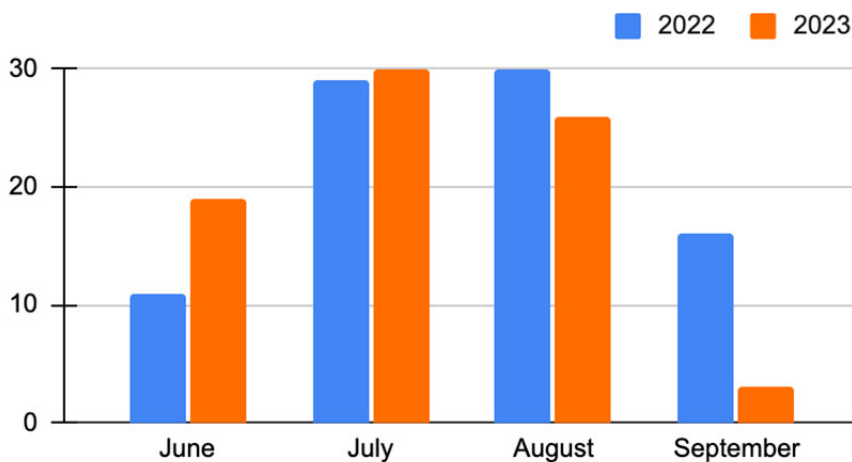
years. In 2023, the lot was full for an average of 37.5 minutes daily. By contrast, the lot was full for an average of 63 minutes daily in 2022.

**Figure 1: Average Property Usage**



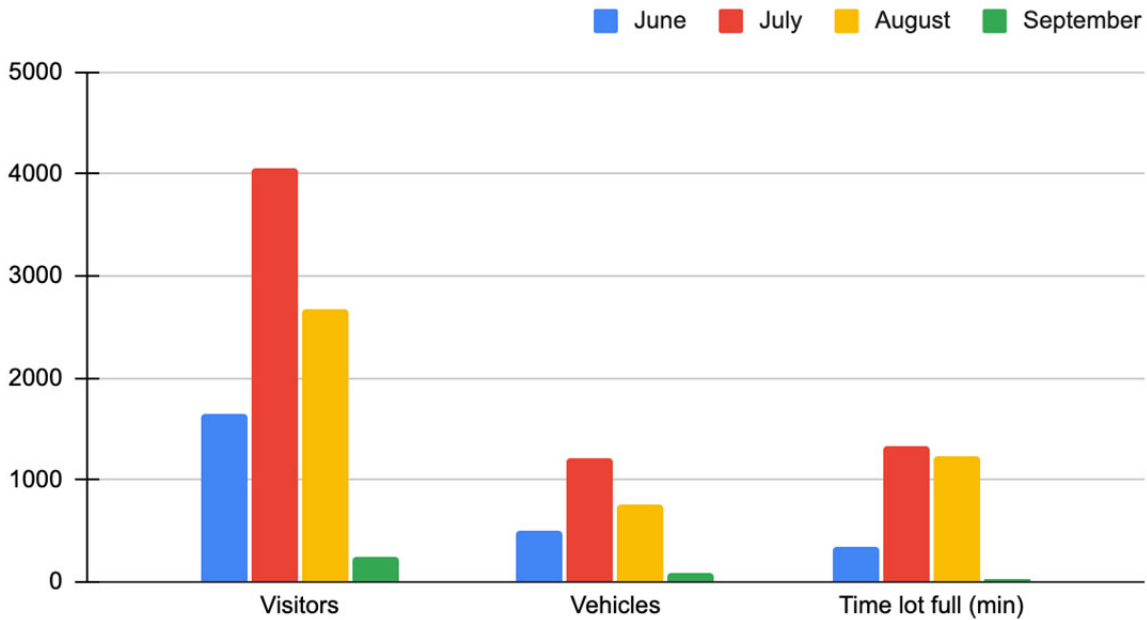
While not significantly different (t-test,  $p = 0.68$ ), there were more days attended in 2022 (86 days) than in 2023 (78 days) (Figure 2). In every month of the summer season, there were more days with a ranger stationed at Tashmoo in 2022 than in 2023. The greatest discrepancy was in September, where in 2022 there were 16 days with a ranger whereas in 2023, there were only 3 days with a ranger.

**Figure 2: Number of Days Attended**

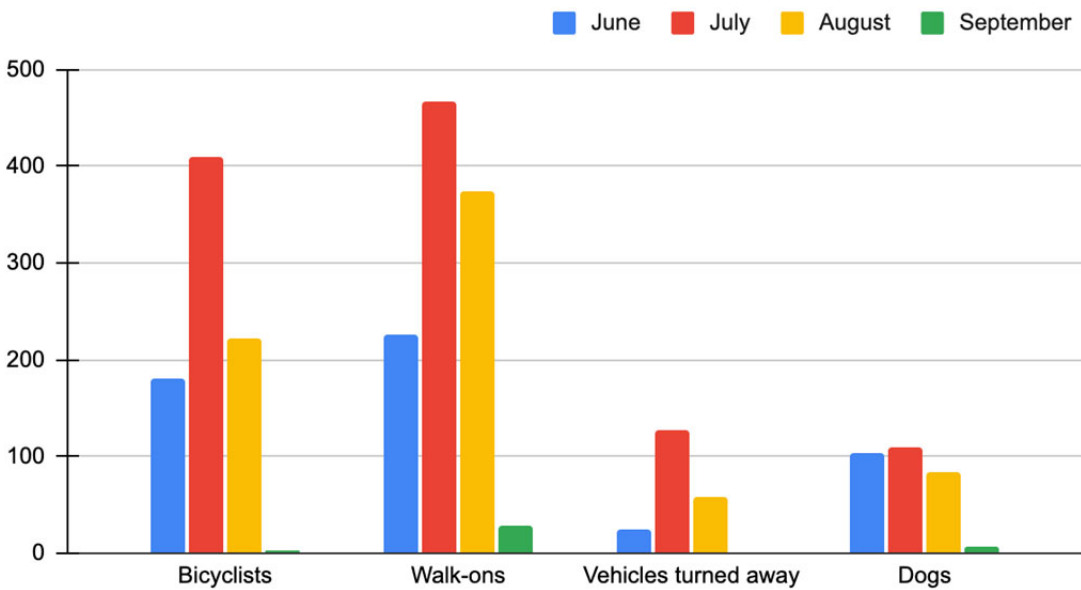


The most visited month was July, followed by August and June (Figure 3A), but the difference between monthly usage was not significantly different. This includes vehicles turned away (211) and walk-ons shown (1095) in Figure 3B. However, August had the most bicyclists (816) and dogs (304).

**Figure 3A: Total Property Usage**



**Figure 3B: Total Property Usage**



Saturdays, Sundays, Fridays, and Wednesdays had the most visitors, vehicles, maximum number of vehicles in the lot, walk-ons, and bicyclists (Figures 4A and 4B). The lot was full most often on Sundays, Saturdays, Mondays, and Fridays. Vehicles were most often turned away on Sundays, Saturdays, and Tuesdays. Dogs were most often recorded on Mondays, Fridays, and Sundays.

Figure 4A: Total Property Usage

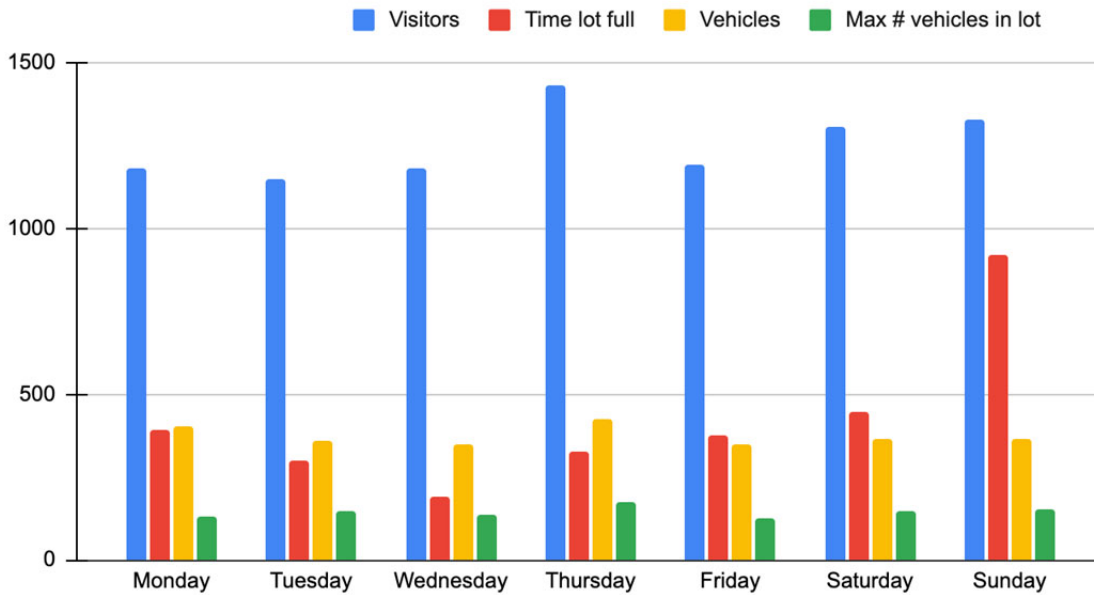
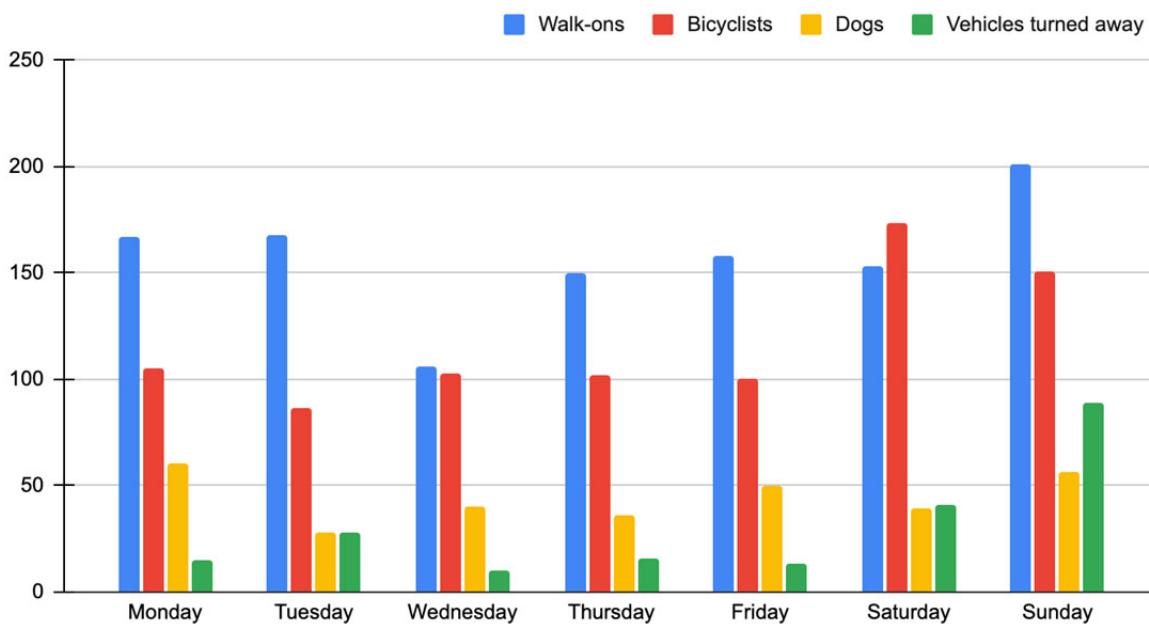


Figure 4B: Total Property Usage



**Data tables:**

Table 1: Property usage

2023	Daily Average:	Total:
Vehicles	33.06	2579
Bicyclists	10.46	816
Walk-ons	14.04	1095
Visitors	110.69	8634
Max # vehicles in lot	12.86	1003
Vehicles turned away	2.71	211
Time lot full	37.49	2924
Dogs	3.90	304

Table 2: Monthly usage data with daily avg (average), totals, and averages by day of the week

Monthly Data		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
June	Vehicles	26.947	512	29	18	29	22.667	31.5	12.5	40
	Bicyclists	9.474	180	7.667	5	6.667	9	10.5	10	15
	Walk-ons	11.895	226	13.667	9	10.33	12.333	13.5	6	22.5
	Visitors	86.895	1651	103	46.667	90.33	82.333	99	31	135
	Max # vehicles in lot	9.632	183	12	5.333	11.667	8	9.5	6	12.5
	Vehicles turned away	1.316	25	0	0	0	0	0	0	9
	Time lot full (min)	17.684	336	0	0	0	0	0	0	70
	Dogs	5.474	104	8.667	2.667	4.6667	3.667	5	3.5	10.5
Monthly Data		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
July	Vehicles	40.2	1206	50.25	39	40.25	37.25	38	43.6	35
	Bicyclists	13.667	410	13.75	13	10.5	9.25	14	19.2	17.2
	Walk-ons	14.839	466	13.25	19.75	11	6.75	10.2	16.6	20.8
	Visitors	131	4061	118.5	139.5	134	124.75	104.2	158.2	137.2
	Max # vehicles in lot	15.067	452	11.5	16.5	15	15	13.25	17	16.4
	Vehicles turned away	4.233	127	2.25	5.25	1.75	2	2.75	4.4	10.8
	Time lot full (min)	44.433	1333	57.5	76.667	18.75	13.25	64	24	100
	Dogs	3.633	109	4	2	4	2.25	4.75	3	5.2

Monthly Data		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
August	Vehicles	30.76	769	28.5	26.2	33.667	34.5	23.25	40.333	37.333
	Bicyclists	8.92	223	6.75	3.6	13.667	8.5	5.25	19	11.667
	Walk-ons	15	375	18.25	11.8	10.333	15.25	16.5	19.333	17.333
	Visitors	107.32	2683	99.25	81.8	125	120.5	86.5	151.333	123.333
	Max # vehicles in lot	13.5	333	12.5	12	14	15	9.25	17.333	16
	Vehicles turned away	2.308	59	1.5	1.4	1	1.75	0.5	6.333	5.667
	Time lot full (min)	48.077	1225	40	12	38.333	62.5	22.5	108.333	93.333
	Dogs	3.423	84	4.5	1.8	3.333	2.5	4.5	5.667	3
Monthly Data		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
September	Vehicles	30.667	92		18		36	39		
	Bicyclists	1.75	3		1		2	2		
	Walk-ons	10.5	28		3		12.5	14		
	Visitors	85	239		41		102.5	125		
	Max # vehicles in lot	11.143	35		6		14.5	18		
	Vehicles turned away	0.429	0		0		0.5	0		
	Time lot full (min)	13.571	30		0		12.5	30		
	Dogs	2.857	7		3		3	3		

Table 3: Total lot data by day of the week

Total	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Vehicles	402	359	350	427	347	364	367
Bicyclists	105	86	103	102	100	173	151
Walk-ons	167	168	106	150	158	153	201
Visitors	1180	1148	1182	1433	1190	1307	1326
Max # vehicles in lot	132	148	137	173	127	149	155
Vehicles turned away	15	28	10	16	13	41	89
Time lot full	390	300	190	328	376	445	920
Dogs	60	28	40	36	50	39	56

**Anecdotes:**

In previous years, Tashmoo Preserve was noted as a property with many negative visitor-ranger interactions, as turned-away motorists tend to be cross. This summer, rangers were encouraged to ramp up their cordiality when turning vehicles away and suggest alternative beach destinations nearby if the visitors in vehicles they were turning away were amenable. Overall, summer rangers had positive interactions with visitors this season as a result of this effort.

An incidence of trespassing onto abutting private property occurred once in 2023. The summer ranger and property owner communicated with the trespassing visitors, and the trespassing visitors returned to the public beach.

The more communication between the town and the land bank, the better. Notably, the town did not employ lifeguards to be present daily at Tashmoo Preserve in the 2023 season — an important change from past years. Many visitors had questions about this decision and were eager to know if this would be the norm for subsequent years. Additionally, trash and small bonfires were occasionally found on the beach by rangers upon arrival, possibly indicating a need for checking the property off-hours by police.

## **Wilfrid's Pond Preserve**

### **Data:**

Wilfrid's Pond Preserve had a total of 1,988 recorded visitors in the 2023 season. The total number of visitors counted decreased by 51% between 2023 and 2022. Although Wilfrid's Pond Preserve had far fewer visitors in 2023 compared to the 4,013 visitors in the 2022 season, the decrease in visitor counts is not statistically significant (t-test,  $p = 0.07$ ). All property metrics decreased between 2023 and 2022.

The number of days attended was similar in 2023 and 2022 (t-test,  $p = 0.58$ ). In 2023, Wilfrid's Pond Preserve was attended for a total of 64 days. In 2022, this property was attended for a total of 73 days. Notably, Wilfrid's Pond Preserve was attended between June 12th and August 22nd in 2023. It was attended between June 13th and September 11th in 2022.

The busiest month was July, with a total of 1098 visitors, and the busiest days of the week were Wednesdays, with an average of 324 visitors, and Saturdays, with an average of 316 visitors.

### **Recommendations:**

1. Rangers should continue to be prioritized on Saturdays and Sundays given the high volume of visitors and number of vehicles on those days of the week. Further attending days should include Wednesdays when the most weekday property usage is seen.
2. Dog policy signage should continue to be displayed and checked throughout the season.

### **Graphics:**

On average, 2023 had decreased property usage compared to 2022 (Figures 1A and 1B, t-test,  $p = 0.08$ ).



Figure 1A: Property Use Daily Averages

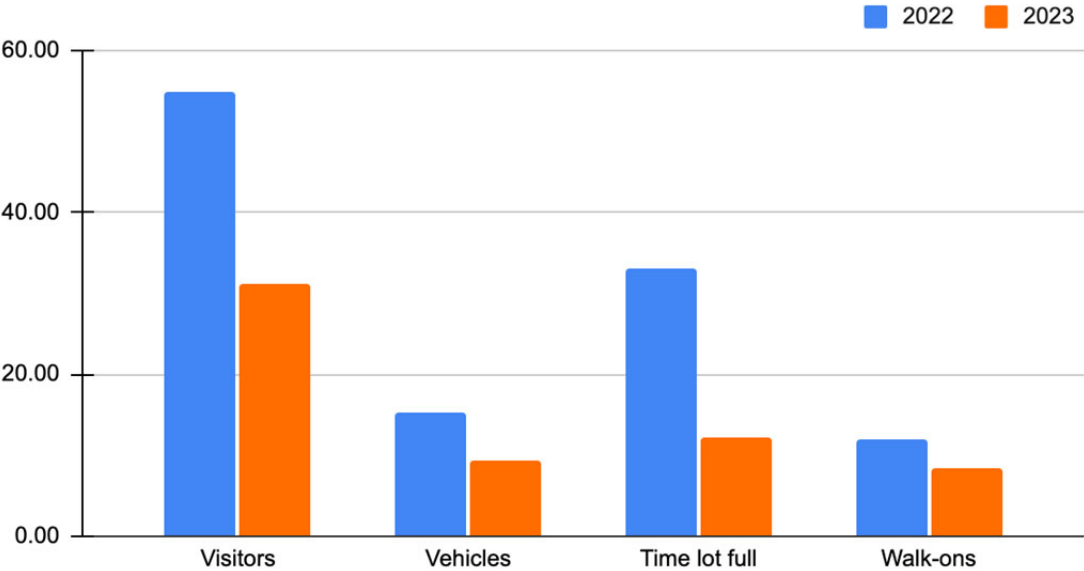
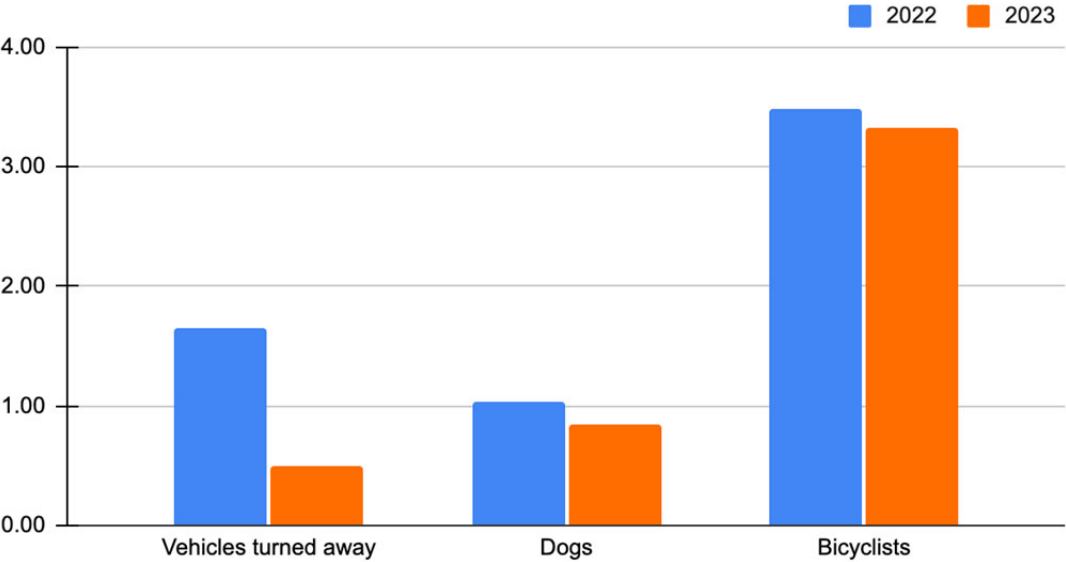


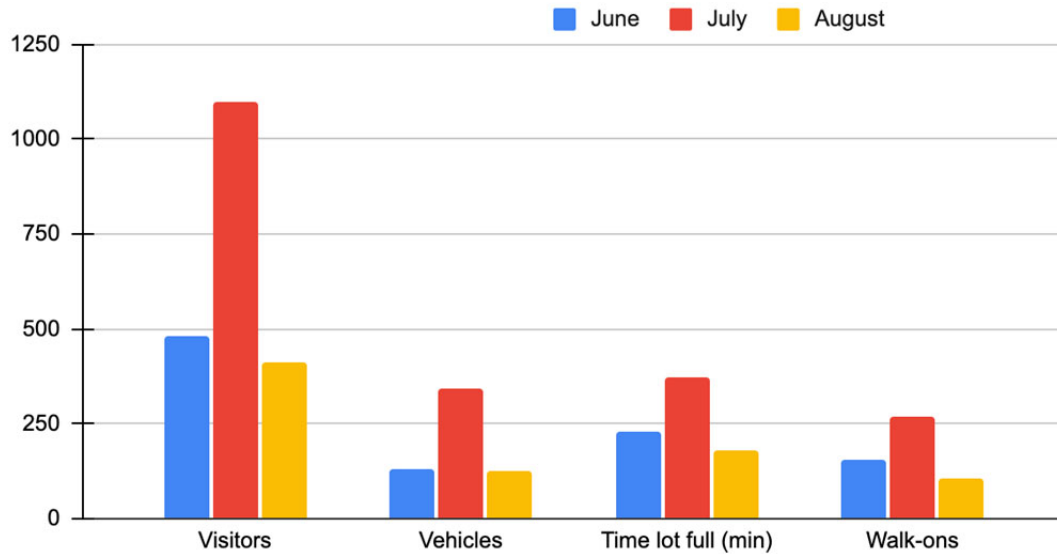
Figure 1B: Property Use Daily Averages



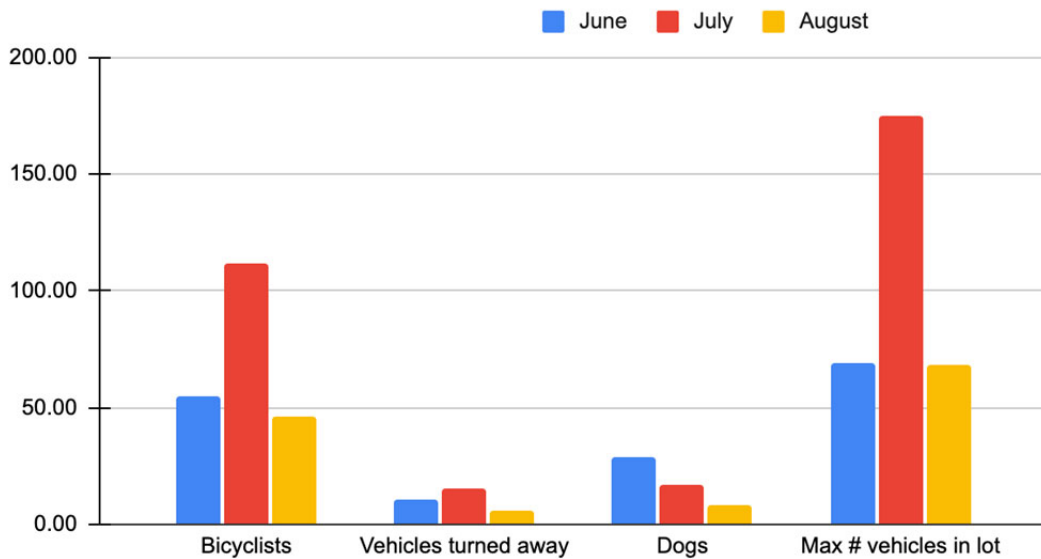
The busiest month was July across all property use metrics (Figures 2A and 2B). July was the busiest month on average, followed by June. With the exception of the number of dogs visiting the property, July showed the highest counts across all metrics. Importantly, Wilfrid’s Pond Preserve was attended for fewer days in August 2023 (14 days) than in August 2022 (25

days). This property was attended more days in June 2023 (19 days) compared to June 2022 (13 days). The number of days attended in July 2023 and 2022 are comparable with 31 and 30 days attended respectively.

**Figure 2A: Monthly Property Usage**



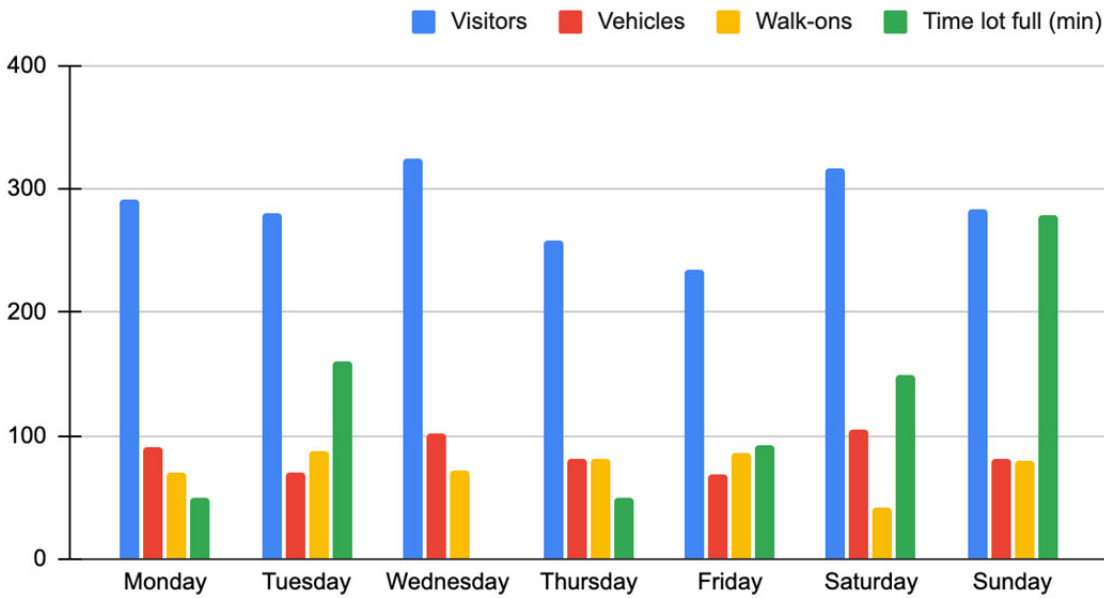
**Figure 2B: Monthly Property Usage**



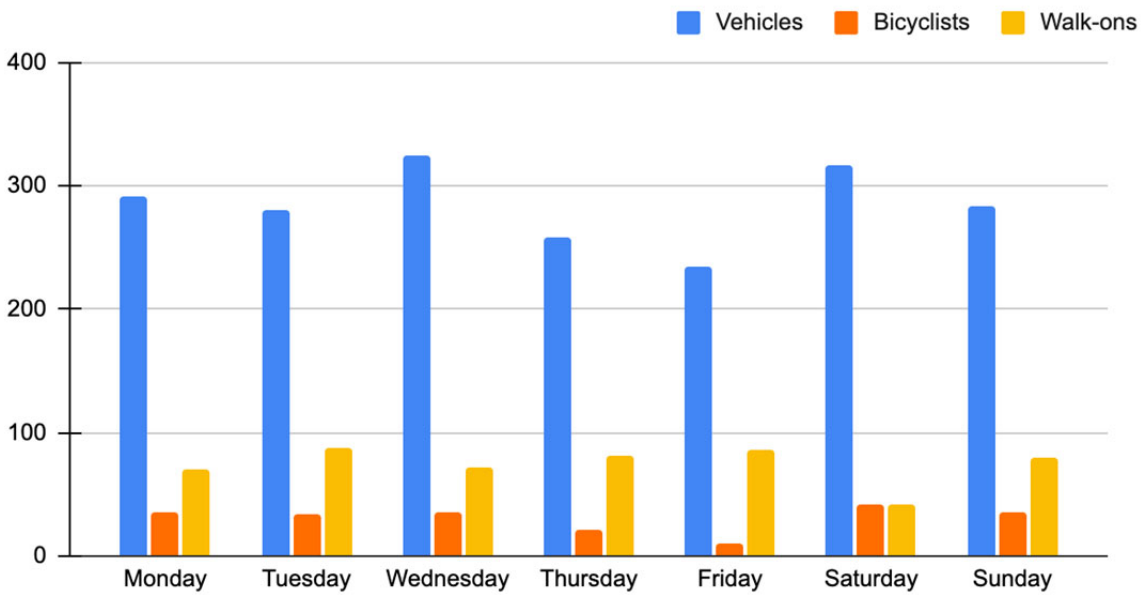
The overall pattern of property usage at Wilfrid’s Pond Preserve shows the days of the week do not significantly differ in visitor counts (Figures 3A and 3B). The greatest property usage occurs on Wednesdays and Saturdays for the total number of visitors and the total number

of vehicles. The greatest number of walk-on visitors occurred on Tuesdays (87), Thursdays (82), and Fridays (86). Also, Tuesdays (34) and Wednesdays (35) were the most popular weekdays for bicyclists, while Saturdays (42) were the most popular days for bicyclists on the weekends.

**Figure 3A: Property Usage Totals by Days of the Week**



**Figure 3B: Transportation to Property by Days of the Week**



**Data Tables:**

Table 1: Property usage

Summer 2023 Total:	Daily Average:	Total:
Vehicles	9.36	599
Bicyclists	3.33	213
Walk-ons	8.30	531
Visitors	31.06	1988
Max # vehicles in lot	4.88	312
Vehicles turned away	0.50	32
Time lot full	12.20	781
Dogs	0.84	54

Table 2: Monthly property usage data with daily AVG (average), totals, and broken down by day of the week

Monthly Data		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
June	Vehicles	6.842	130	5.667	2.667	7.66667	4.33	7.5	6	11
	Bicyclists	2.895	55	2	2	3.33	3	1.5	4	5
	Walk-ons	8.158	155	7.33	8.33	6.667	12	10	1.5	8
	Visitors	25.211	479	22.33	16	26.33	23	25.5	19	35.5

	Max # vehicles in lot	3.632	69	3	1.33	3.33	2.667	4	4.5	6
	Vehicles turned away	0.579	11	0	0	0	0	0	0	2.5
	Time lot full (min)	12	228	0	0	0	0	0	0	67.5
	Dogs	1.526	29	1	3	2	2	1	1	0.5
		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
July	Vehicles	11.065	343	9.75	9	12.25	12	8	15.4	11.8
	Bicyclists	3.613	112	4	5.25	2.25	2	1.4	5	5
	Walk-ons	8.323	271	7	8.25	6.5	8.5	8.6	5.8	12.6
	Visitors	35.419	1098	29.5	35.5	35.5	32.75	26.8	44.4	42.4
	Max # vehicles in lot	5.645	175	5.25	6	5.25	6.25	4.2	7.4	5.4
	Vehicles turned away	0.484	15	1	0.5	0	0	1.2	0.4	1.4
	Time lot full (min)	12.032	373	12.5	38.33	0	0	18.6	13	28.6
	Dogs	0.548	17	0.75	1	0.25	0	0.4	1.2	0.2
		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
August	Vehicles	9	126	11.667	6.5	10	10	7	16	

Bicyclists	3.286	46	4.33	1.75	5.33	2.5	0	9	
Walk-ons	7.5	105	6.667	7.25	8.667	6	11.5	10	
Visitors	29.357	411	35.667	22.75	34.33	29	24.5	56	
Max # vehicles in lot	4.857	68	6.667	4	4.33	5.5	4	8	
Vehicles turned away	0.429	6	0	0	0	0	0	6	
Time lot full (min)	12.857	180	0	11.25	0	25	0	85	
Dogs	0.571	8	0.33	0.5	0.667	0.5	0	2	

**Anecdotes:**

Clarifications to the dog policy were accompanied by signage. Neighboring property owners communicated with the Land Bank to prevent bonfires on the beach at night around holidays, e.g., July 4<sup>th</sup> and therefore rangers were stationed in the trailhead at Wilfrid's Pond Preserve at night throughout the week of July 4th. Unlike last season, the dog policies posted on the kiosks were not vandalized. Summer rangers reported interactions with visitors attempting to bring their dogs onto the beach were generally friendly and understanding.