Aquinnah Headland Preserve - Moshup Beach

Data

Moshup Beach is a highly-visited property, with 37,506 visitors in 2022. This was an increase from 2021 of 7,458 visitors. In 2022, there were 268 bicyclists compared to 214 bicyclists in 2021 (t-test, p = 0.99). This increase in bicyclists may be a result of the increase in parking lot prices in Aquinnah.

Overall, the number of attending days was similar from 2021 to 2022 (t-test, p=0.14). July was the most visited month of 2022, followed by August, September, and then June (ANOVA, p=0.99). While there were 10 more days attended in June 2022 than in June 2021, the average property usage data were similar during those months. The greatest number of visitors occurred on Saturdays and Sundays with an additional peak on Wednesdays (ANOVA, p=0.9). The number of dogs in September did increase in 2022 due to the seasonal conclusion of the no-dog policy on September 1st (t-test, p=0.38).

Actions to be taken:

- Prioritize this property when scheduling summer rangers due to the high volume of visitors. This helps enforce property rules such as no dogs on the beach and no climbing on dunes
- 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.

Graphics

There was a total of 37,506 visitors in 2022 and a total of 30,048 visitors in 2021 (Figure 1A). There were more bicyclists in 2022 (198) than in 2021 (138) (Figure 1B). The number of people fishing was slightly more in 2021 (by 4) and the number of dogs was much greater in 2021 (by 54). These differences, however, were not significant (t-test, p = 0.39).

Figure 1A: Total Visitors

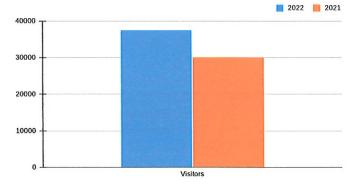
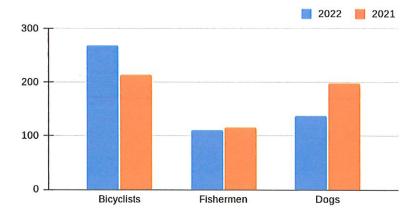
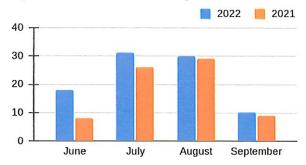


Figure 1B: Total Beach Usage



The number of days attended was similar from 2021 to 2022 (Figure 2). However, June of 2022 had ten more days with a ranger (18 days) than in 2021 (8 days). This did not appear to affect the average attending data in the month of June and was not significantly different (t-test, p value = 0.14).

Figure 2: Number of Days Attended



In July, August, and September, there were more visitors on average in 2022 than in 2021 (Figure 3A, ANOVA, p=0.99). The average number of visitors in the month of June was similar across years and the month of July had the greatest number of visitors (543 average visitors). In September, there were almost double the number of average visitors in 2022 (399) as in 2021 (224). This may have been due to the dog policy. When examining other property use metrics (Figure 3B), July had the greatest total use followed by August. Additionally, there were far

more dogs in September of 2022 compared to other months, due to the seasonal shift in the dog policy (t-test, p = 0.75).

Figure 3A: Average visitors per month

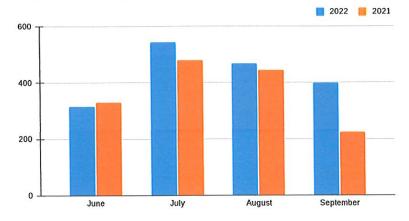
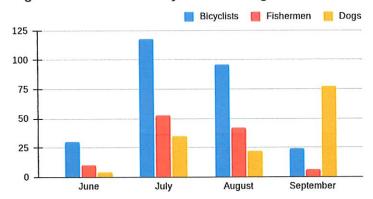


Figure 3B: Total Monthly Beach Usage



When examining just the month of September, there is a far greater average number of visitors (Figure 4A) and 7 times more dogs (Figure 4B) in 2022 than in 2021. Interestingly, there were slightly fewer people fishing and bicyclists on average in 2022 than in 2021 (t-test, p = 0.38).

Figure 4A: September Average Visitors

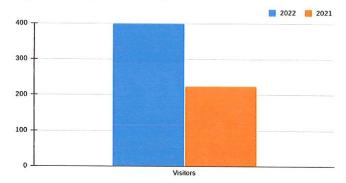
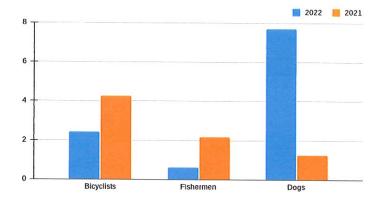


Figure 4B: September Average Beach Usage



The total number of visitors was greatest on Saturday and Sunday, followed by Wednesday (Figure 5A, ANOVA, p=0.9). This trend is mirrored by the number of people fishing, dogs, and bicyclists (Figure 5B). Mondays are also popular for bicyclists. A possible reason for this is differences in data collection between various rangers; perhaps improved data collection would yield different results.

Figure 5A: Total Visitors

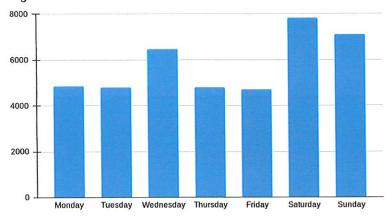
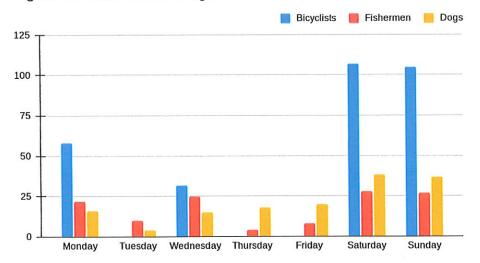


Figure B: Total Beach Usage



Data tables

Table 1: Property usage in Summer 2022

	Daily Average:	Total:
Visitors	421.42	37506
Bicyclists	3.01	268
Fishermen	1.25	111
Dogs	1.55	138

<u>Table 2:</u> Property usage data with daily AVG (average), totals, and averages by day of the week

Monthly	y Data	Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
June	Visitors	316.28	2641	232.67	369	335	282.33	226	485.5	306.5
	Bicyclists	3.56	30	6.33	0	4	0	0	9.5	7
	People fishing	1.28	10	0.33	1.67	2.67	0.67	0	0.5	3
	Dogs	0.78	4	0.33	0.33	1.33	0.33	1	2.5	0

Monthl	y Data	Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
July	Visitors	543.00	1683 3	528.25	439.75	713.5	430	429.8	606	641.6
	Bicyclists	3.81	118	3.50	0	1.75	0	0	8.2	11.2
	People fishing	1.71	53	1.75	0.5	2	0	1	3	3.2
	Dogs	1.13	35	1.00	0.25	1.5	0.5	0	1.6	2.8

Monthly	Data	Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
August	Visitors	468.17	14045	355.20	387	488.4	412.75	456	685.75	532.5
	Bicyclists	3.20	96	4.40	0	2.2	0	0	7.25	8.5
	People fishing	1.40	42	2.40	0.6	1.6	0.5	0.33	2.75	1.25
	Dogs	0.73	22	0.60	0.4	0.2	0.25	0	2.25	1.5

Monthly Da	ta	Daily Avg	Total	AVG Monday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
September	Visitors	398.7	3987	257	180	296.5	367	541.5	570
	Bicyclists	2.4	24	3	2	0	0	9	0.5
	People fishing	0.6	6	2	1	0	1	0.5	0
	Dogs	7.7	77	8	4	7	9	8	8.5

Table 3: Total property use data by day of the week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Visitors	4844	4801	6481	4811	4703	7827	7091
Bicyclists	58	0	32	0	0	107	105
People fishing	22	10	25	4	8	28	27
Dogs	16	4	15	18	20	38	37

Table 4: Number of attending days

	2022	2021
June	18	8
July	31	26
August	30	29
September	10	9

Anecdotes:

Parking attendants at the town parking lot noted fewer vehicles in 2022 compared to 2021. This was attributed to the increase in parking prices. However, 2022 land bank beach data show an increase in visitors. This discrepancy is likely caused by visitors opting to bike rather than drive to this property.

When examining bicycle data, no bicyclists were recorded on Tuesdays, Thursdays, and Fridays. Given that bikers were noted on all other days of the week, likely bicyclists counts were missed on these days (these days of the week had the same ranger throughout the summer). To remedy this, the bike rack could be located closer to the property box. This would also prevent parked bikes from getting hit as was noted a few times during this summer.

Due to the high number of visitors, the sand underneath the beach mat slopes towards the beach. This can lead to tripping/falling. To prevent this, the sand mat should be left unstaked where the section meets the beach. This way, the sand can be raked/redistributed a few times per week.

Many rangers and visitors noted that the beach had more rocks this season compared to last season. This, as explained in the management plan, is a typical cycle for Moshup Beach. Additionally, there were frequent jellyfish sightings and stings. Rangers were encouraged to offer vinegar and warm water to visitors. 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 attended in a limited capacity in 2021 and 2022. In 2022, the property had a summer ranger a maximum of two days per week between June 27 and September 7. In 2021, the property had a summer ranger between two and six days per week between June 22 and September 2. Rangers were present in 2022 on Tuesdays, Wednesdays, and Thursdays. The 2022 season had a total of 144 visitors, 65 vehicles, and 20 minutes when the parking lot was full.

Given the difference in attending between 2021 and 2022 (t-test, p = 0.20), it is inadvisable to make many comparisons between the summers. 9 days were attended in 2022 compared to 31 in 2021. When examining the most comparable month, August of 2021 had twice the number of kayakers/boats and almost two times more visitors than in 2022 (t-test, p = 0.08).

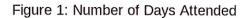
Chilmark Pond property usage has declined in the years since high cyanobacteria counts emerged. This season, cyanobacteria levels tested high towards the end of the season. At least once this season visitors' boating equipment was left overnight. This did occur a few times in 2021 and it is possible that this happened throughout the 2022 season. With no seasonal staff in housing and infrequent attending, it is unclear if this was a common issue.

Actions to be taken:

- Given the low number of visitors, Chilmark Pond Preserve should only be staffed if sufficient rangers are available.
 - a. If rangers are desired to prevent visitors from trespassing on neighboring dunes, early morning rangers could be stationed (similar to the Manaquayak Preserve from 7 am - 10 am)
- Routinely check the property for watercraft or trailers left at the launch area.
- 3. Ensure rangers are well-informed about bacterial testing in the pond.

Graphics: *SUP = Stand up paddle board

The number of days attended was not significantly different (t-test, p = 0.20) between 2021 and 2022 (Figure 1). August is examined in Figures 2 and 3, for comparison purposes.



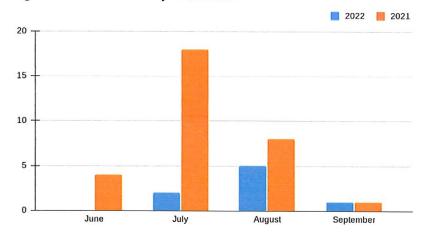
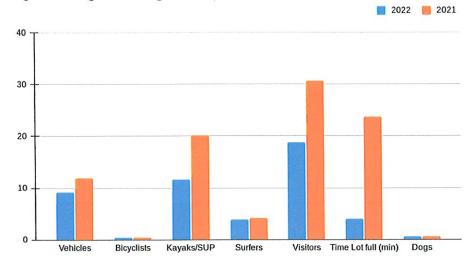


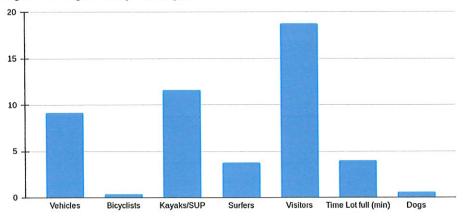
Figure 2 compares trailhead data from August of 2022 and 2021. It Should be noted that Chilmark Pond was attended in August for 8 days in 2021 and 5 days in 2022. The difference in the number of days attended was not significantly different (t-test, p=0.20). The average number of vehicles, bicyclists, surfers, and dogs were similar across years (t-test, p=0.08). 2021 had almost double the number of kayakers and visitors and nearly 4 times more minutes that the trailhead was full than in 2022.

Figure 2: August Averages Compared



The August daily averages showed low property usage. On average, there were 19 visitors, 4 surfers, 12 kayaks or stand up paddle boards (SUP), and the amount of time the lot was full was under 5 minutes (Figure 3).

Figure 3: August Daily Averages



Data tables: *SUP = Stand up paddle board

Table 1: Trailhead usage for June 27th - September 7th

	Daily Average:	Total:
Vehicles	7.22	65
Bicyclists	0.22	2
Kayaks/SUP	9.22	83
Surfers	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 2: Monthly trailhead data with daily AVG (average) and totals

		, , ,		
A:		Daily AVG	Total	
July	Vehicles	7	14	
	Bicyclists	0	0	
	Kayaks/SUP	11.5	23	
	Surfers	0	0	
	Max # vehicles in lot	4.5	9	
	Visitors	18	36	
	Time Lot full (min)	0	0	
	Dogs	2	4	

Dates: July 27 & 28

B:		Daily AVG	Total
August	Vehicles	9.2	46
	Bicyclists	0.4	2
	Kayaks/SUP	11.6	58
	Surfers	3.8	19
	Max # vehicles in lot	3.4	17
	Visitors	18.8	94
	Time Lot full (min)	4	20
	Dogs	0.6	3

Great Rock Bight Preserve:

Data:

Great Rock Bight Preserve is a very popular Land Bank property during the summer season. For the 2022 season, the property had a total of 6,714 visitors. This is a decrease from the 8,176 visitors in 2021 however, from July 27th to August 11th, water testing revealed a high bacterial count in the water. In 2021, the property was attended from June 8th to September 18th and in 2022, the property was attended from June 13th to September 11th. The number of days that the property was attended was not significantly different between 2021 and 2022 (t-test, p = 0.924). On the weekends, the trailhead, which accommodates 18 vehicles, was often filled. Because of this volume, at least one ranger is needed on weekends to ensure this maximum is not surpassed.

Ideally, a ranger should be present to enforce property rules including boundaries, dog policies, and to prevent climbing on dunes/removing of clay. The beach had a total of 1,580 visitors this season while a ranger was present. In the 2022 season, the beach was attended from June 13th to September 2nd. In 2021, the beach was attended from July 11th to September 15th. This difference in attending times may explain the beach data averages appearing slightly different (t-test, p = 0.391). With no beach attending in June of 2021 and only a single attending day in September of 2022, these months could not be compared across years. This lack of data indicates limitations in the beach data comparisons made.

Actions to be taken:

- Rangers should be prioritized from Friday to Sunday given the high volume of visitors on those days of the week. Further attending days should include Tuesdays and Wednesdays, when the most weekday property usage is seen.
- Slightly more people violated property boundaries in 2022 than in 2021. However, the number of attending days did not differ significantly (t-test, p = 0.391). More emphasis should be made on prioritizing this matter.
- 3. A pre-season trash cleanup should be completed to ease summer trash collection.

Trailhead data:

There were non-significant differences between 2022 to 2021 trailhead data (Figures 1A and B). The number of minutes that the trailhead was full and the number of vehicles turned away were slightly less in 2022 than in 2021. These small changes are likely due to the high bacterial count detected in July. The number of dogs on the property was also lower in 2022 than in 2021. The average, though, between years shows similar trends with non-significant differences between 2022 and 2021 (t-test, p = 0.077).

Dates: August 2, 10, 23, 24, 31

C:		Daily AVG	Total
September	Vehicles	5	5
	Bicyclists	0	0
	Kayaks/SUP	2	2
	Surfers	0	0
	Max # vehicles in lot	2	2
	Visitors	14	14
	Time Lot full (min)	0	0
	Dogs	2	2

Date: September 7

Table 3: Number of Attending days in 2022 and 2021

	2022	2021
June	0	4
July	2	18
August	5	8
September	1	1

Anecdotes:

One incident occurred where a boat and trailer were left blocking the boardwalk overnight. This happened multiple times in 2021, but there were rangers consistently on the property. This property should be checked at least weekly during the peak summer season.

In previous years, neighbors complained about surfers accessing private areas of the dune in the morning hours before rangers are present. If desired, rangers could be stationed on this property during early hours and then report to other properties to fulfill their shifts. However, the neighbors lodged no complaints this summer and there were only a total of 19 surfers and this is therefore not a priority matter.

Figure 1A: Parking Data Totals

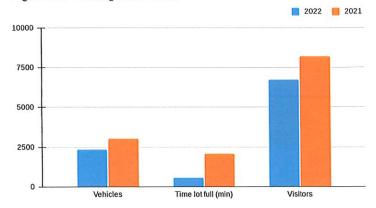
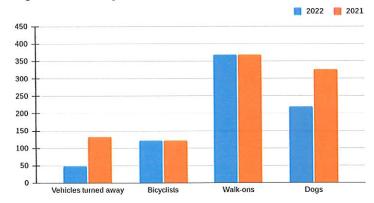
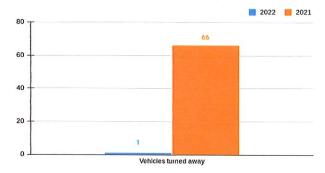


Figure 1B: Parking Data Totals



After examining monthly data, the greatest difference between 2022 and 2021 was the number of vehicles turned away in August (Figure 2). Again, this was a result of a high bacterial count detected at the end of July and into August, and was not significantly different between years.

Figure 2: Total Vehicles Turned Away August 2022 and 2021



Beach data:

Insignificant differences (t-test, p = 0.376) are seen in beach data totals between 2022 and 2021 (Figure 3A and 3B). In 2022, there were fewer visitors, people fishing, and dogs turned away. Fewer visitors were likely due to changes in the dog policy and bacterial levels. In 2022, there were slightly more visitors who violated property boundaries.

Figure 3A: Beach Visitor Totals

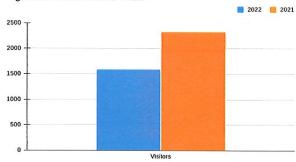
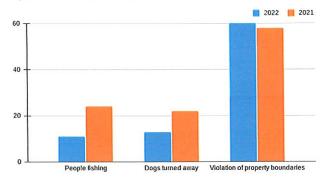


Figure 3B: Beach Data Totals



Beach daily averages in July (Figure 4) and August (Figure 5A and 5B) were slightly less in 2022 compared to 2021 (t-test, p=0.384 and p=0.386 respectively). Additionally, the number of people fishing in July of 2022 was half of those fishing in July of 2021. These decreases may be attributed to the high bacteria count.

Figure 4: Beach Daily Averages July



Figure 5A: Daily Average Visitors August

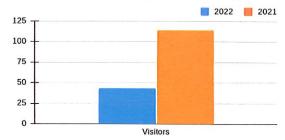
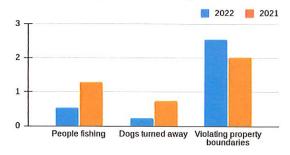


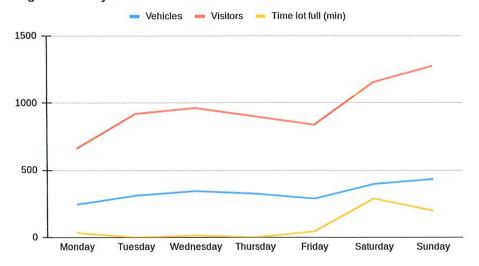
Figure 5B: Daily Averages August



General Property Usage:

While not significantly different (ANOVA, p = 0.969), the most popular days of the week were Fridays, Saturdays, and Sundays with the most 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



The average trailhead data show the most property usage in July, followed by August. June and September have similar usages but are not significantly different (ANOVA, p = 0.962).

Table 1: Monthly trailhead usage for June 13th - September 11th

Table 1. Monumy manneau usage for June 13m - September 11	lead usage 101 Ju	ne 13m - septemo	11 12
Summer 2022:	Average:	Total:	
Vehicles	288	2352	
Bicyclists	30.5	122	
Walk-ons	92	368	
Visitors	1678.5	6714	
Max # vehicles in lot	254	1016	
Vehicles turned away	12.25	49	
Time lot full (min)	145.75	583	
Dogs	55	220	

Table 2: Mo	<u>lable 2:</u> Monthly trailhead data with daily AVG (average), totals, and averages by day of the week	ta with daily	۹۷ کا (averag	e), totals, and	1 averages by	day of the we	sek			
Monthly				AVG	AVG	AVG	AVG		AVG	AVG
Data		Daily AVG	Total	Monday	Tuesday	Wednesday	Thursday	AVG Friday Saturday	Saturday	Sunday
June	Vehicles	24.38	390	13.5	24.67	22.00	22.00	26.00	36.50	29.00
	Bicyclists	1.19	19	0	1.33	1.67	1.33	2.00	0.00	2.00
is .	Walk-ons	2.63	42	0.5	2.00	2.67	2.00	5.00	5.50	2.50
	Visitors	65.44	1047	38	26.00	29.62	28.67	65.00	104.00	87.50
	Max # vehicles in lot	69.6	155	4	9.33	9.00	7.33	10.00	17.00	13.00
	Vehicles turned									
	away	0.25	4	0	0.00	0.00	0.00	00.0	1.50	0.50
	Time lot full (min)	5.63	06	0	0.00	0.00	0.00	0.00	37.50	7.50
	Dogs	3.81	36	'n	3.67	3.33	3.00	7.00	4.00	2 00

				AVG	AVG	AVG	AVG		AVG	AVG
		Daily AVG	Total	Monday	Tuesday	Wednesday	Thursday	AVG Friday Saturday	Saturday	Sunday
July	Vehicles	30.87	957	23.5	29.00	30.25	28.25	26.20	32.20	44.20
	Bicyclists	1.39	43	1	1.25	0.75	1.25	1.20	2.60	1.40
_	Walk-ons	5.26	163	4.75	9.00	1.75	3.00	3.20	5.00	09.6
	Visitors	89.45	2773	59	92.00	86.00	82.25	71.20	98.20	129.80
	Max # vehicles in lot	12.06	374	10.5	9.00	14.25	11.00	9.80	14.00	15.20
	Vehicles turned away	1.35	42	1	0.00	0.00	0.00	0.80	3.40	3.40
	Time lot full (min)	11.94	370	8.75	00:00	0.00	0.00	0.00	37.00	30.00
	Dogs	2.74	85	1.75	2.75	2.50	2.50	1.80	2.00	5.60
				AVG	AVG	AVG	AVG		AVG	AVG
		Daily AVG	Total	Monday	Tuesday	Wednesday	Thursday	AVG Friday	Saturday	Sunday
August	Vehicles	25.90	751	19.6	23.60	29.20	23.75	22.00	36.00	32.67
	Bicyclists	1.28	37	0	3.20	09.0	1.50	1.50	1.00	1.00
_	Walk-ons	3.97	115	3.4	2.80	3.60	4.00	3.00	1.67	11.00
	Visitors	74.76	2168	54.4	74.40	81.00	59.75	73.25	29.86	97.00
	Max # vehicles in lot	12.86	373	9.2	11.20	12.60	19.75	9.75	14.67	15.33
	Vehicles turned away	0.03	1	0	00.00	0.00	0.00	00.00	00:0	0.33
	Time lot full (min)	3.72	108	0	0.00	3.00	0.00	11.25	10.00	6.00
	Dogs	1.93	56	2.4	3.60	1.40	1.25	0.50	1.67	2.33

		Deily AVC	Total	AVG	AVG	AVG	AVG			AVG
		Dally Av C	logal	Monday	1 uesday	wednesday	Luursday	AVG Friday Saturday		Sunday
September	Vehicles	23.09	254	27	5.00	26.00	26.00	22.00	28.00	28.50
	Bicyclists	2.09	23	2	00.00	0.50	0.50	3.00	1.50	4.00
	Walk-ons	4.36	48	2	00.00	8.50	8.50	3.50	5.50	5.50
	Visitors	00.99	726	78	12.00	78.00	78.00	61.50	80.50	80.50
	Max # vehicles in lot	10.36	114	14	7.00	11.00	11.00	9:00	11.50	14.00
	Vehicles turned away	0.18	2	0	0.00	0.00	0.00	0.00	0.00	1.00
	Time lot full (min)	1.36	15	0	0.00	0.00	0.00	0.00	0.00	7.50
	Dogs	3.91	43	5	5.00	4.00	4.00	2.00	3.50	5.50

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 Monday AVG Tuesday Wednesday	AVG	AVG	AVG Friday	AVG Briday AVG Saturday
The Common of th		Carry trans	10101	the City of the	Ave incous	weatheaday		Av Cillian	Av C Salunday
June	Visitors	43.88	230	00.9	38.67	54.00	61.00	30.00	84.00
	People fishing	0.38	1	00.00	0.00	00.0	2.00	00.00	1.00
	Dogs turned away	0.13	1	00.00	0.00	00.0	0.00	1.00	00:00
	Violations of								
	property								
	boundaries	0.25	0	0.00	0.00	0.00	2.00	0.00	00.0

Iuly Visitors 62.92 Total AVG Monday Wednesday AVG Friday AVG Saturday AVG Saturday <th></th> <th></th> <th></th> <th></th> <th></th> <th>AVG</th> <th></th> <th></th> <th></th>						AVG			
62.92 755 82.00 55.33 60.00 37.00 0.25 3 0.00 0.33 0.40 0.00 0.75 9 1.00 0.00 1.00 2.00 1 2.25 27 7.00 2.00 0.00 0.00			Daily AVG	Total	AVG Monday	Wednesday	AVG Friday	AVG Saturday	AVG Sunday
0.25 3 0.00 0.33 0.40 0.00 0.75 9 1.00 0.00 1.00 2.00 1 2.25 27 7.00 2.00 2.80 0.00	bules	Visitors	62.92	755	82.00	55.33	60.00	37.00	85.00
0.25 3 0.00 0.33 0.40 0.00 0.75 9 1.00 0.00 1.00 2.00 1 2.25 27 7.00 2.00 2.80 0.00	, and	CTOTTOTA							000
0.75 9 1.00 0.00 1.00 2.00 1 2.25 27 7.00 2.00 2.80 0.00		People fishing	0.25	т	00'0	0.33	0.40	0.00	0.00
0.75 9 1.00 0.00 1.00 2.00 1 2.25 27 7.00 2.00 2.80 0.00		Commercial and a							0
2.25 27 7.00 2.00 2.80 0.00		Dogs turned away	0.75	6	1.00	0.00	1.00	2.00	0.50
laries 2.25 27 7.00 2.00 2.80 0.00		-8-1							
2.25 27 7.00 2.00 2.80 0.00		Violations of					ć	0	00 0
Y Y		property boundaries		27	7.00	2.00	7.80	0.00	00:0
		, , ,							

	The state of the s					ATTO		
		Daily AVG	Total	AVG Monday AVG Tuesday	AVG Tuesday	Wednesday	AVG Thursday AVG Friday	AVG Friday
Anguet	Visitors	43.00	559	40.00	58.50	37.67	31.67	48.50
rugusi	VISITORIS						-, -	0.0
	People fishing	0.54	7	0.00	1.00	0.33	0.67	0.50
	Tooling trous							0
-	Door firmed away	0.23	ю	0.00	0.00	0.33	0.00	0.50
	Violations of						,	00 8
	property boundaries	2.54	33	1.00	1.50	4.00	0.33	4.00
	Frehm							

		Daily AVG	Total
September	Visitors	36.00	36
	People fishing	0.00	0
	Dogs turned away	0.00	0
	Violations of property		
	boundaries	0.00	0

*note: Only September 2nd had a ranger

Table 4: Total beach usage for June 13th - September 2nd

Summer 2022:	Monthly Average:	Total:
Visitors	395	1580
People fishing	2.75	11
Dogs turned away	3.25	13
Violations of property boundaries	15	60

Anecdotal Notes:

While the number of bicyclists remained relatively stable between 2021 and 2022, more electric bicycles were noted. This allowed bicyclists from further locations on the island to visit the preserve. With the addition of a bike rack this season, bikers reported that they were more likely to stay longer at the property. By encouraging bike access, we may see more visitors using bikes in future seasons. This may help decrease the number of visitors turned away due to the trailhead filling.

Nearly every ranger noted the low amount of trash present on the beach throughout the season. Before rangers started the season, a trash haul effort was completed on the beach. This trash clean-up early in the summer kept trash levels low well into the summer season.

The updated dog policy resulted in fewer dogs on the property while rangers were present. Since Great Rock Bight Preserve previously had a dog policy of no dogs on the beach from 10am - 6pm, this encouraged owners to bring their dogs outside of attending times. Because of this, it is unclear how well the new policy was followed despite signage present.

Manaquayak Preserve

Data:

The Manaquayak Preserve staffed summer rangers at the Wintergreen Lane trailhead and the swimming perch in 2022. While the Lambert's Cove Road trailhead was not attended (due to low staffing), lot data were collected at the swimming perch. From both access points, there were 6,650 visitors who swam out of a total of 7,652 visitors. A majority (71%) of all visitors accessed the property via the Wintergreen Lane trailhead. The busiest time of the day was at 4 pm (ANOVA, p = 0.01) and the busiest month was July (ANOVA, p = 0.08).

The Manaquayak Preserve was attended for 109 days in 2022 and 116 days in 2021. The Wintergreen Lane trailhead had similar use between 2021 and 2022 (t-test, p=0.27). There were slightly more swimmers in 2022 (6,650) than in 2021 (6073, t-test, p=0.89). June and September of 2021 had more use compared to 2022 while July and August of 2022 had greater property usage (0.68). While 2021 data are not available, the number of hours with a summer ranger was far greater in 2022 (1,159 hours) than in 2020 (355 hours), likely due to the coronavirus pandemic.

Actions to be taken:

- 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.
- 2. Provide rangers with detailed property rules. Explaining why certain rules are in place (such as no diving), can help them enforce and inform the public.
- 3. Continue to angle the swimming perch when pond levels are low.

Graphics: *LC = Lambert's Cove Road trailhead WG = Wintergreen Lane trailhead

Property use at the Wintergreen Lane trailhead did not significantly differ between 2021 and 2022 (t-test, p = 0.27). There were slightly more visitors (178), hikers without dogs (37), and swimmers (194) in 2022 than in 2021 (Figure 1A). July and August had greater property use in 2022 than in 2021. However, June and September had less property use in 2022 than in 2021 (Figure 1B). Rangers started one week earlier in June of 2021 (June 7) than in June of 2022 (June 13). September had the same number of attending days, and saw a decrease between years.

Figure 1A: Wintergreen total property use

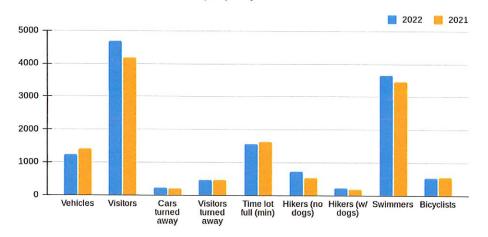
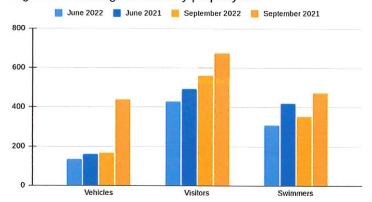
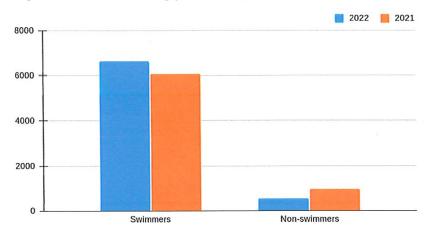


Figure 1B: Wintergreen monthly property use



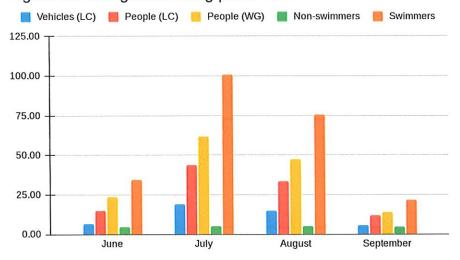
Swimming perch usage was not significantly different between 2021 and 2022 (Figure 2, t-test, p=0.89). In 2022, there were slightly more swimmers (6,650) than in 2021 (6,073). In 2021, there were slightly more non-swimming visitors (958) than in 2022 (550).

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 (ANOVA, p =0.08). Most visitors entered through the Wintergreen Lane trailhead (55%). The number of non-swimmers remained similar across the summer (5 daily).

Figure 3: Average swimming perch data



Data Tables:

Table 1A: Total property usage

Overall	Total	Daily Average
Visitors	7652	63.54
Vehicles	2562	21.28
Vehicles >6	104	0.89
Visitors >10	297	2.37

Table 1B:Total swimming perch usage

Swimming perch	Total	Daily Average
Hours Staffed	1163	10.49
Vehicles (LC)	1322	11.14
People (LC)	2974	25.14
People (WG)	4198	35.09
Non-swimmers	550	4.90
Swimmers	6650	55.61
Swimmers >10	258	2.16

Table 1C:Total Wintergreen Lane trailhead usage

Wintergreen	Total	Daily Average
Hours Staffed	1159	10.41
Vehicles	1240	10.14
Visitors	4682	38.46
# times lot full	63	0.44
Cars turned away	226	1.87
Visitors turned away	467	3.58
Time lot full (min)	1556	10.13
Hikers (no dogs)	731	6.62
Hikers (w/ dogs)	221	1.92
Swimmers	3657	29.29
People on horses	4	0.03
Bicyclists	538	4.82

Table 2A: June Swimming perch usage

Swimming perch	Total	Average
Hours Staffed	200	11.11
Vehicles (LC)	122	6.78
People (LC)	273	15.17
People (WG)	428	23.78
Non-swimmers	88	4.89
Swimmers	617	34.28

Table 2B: June Wintergreen Lane trailhead usage

Wintergreen	Total	Average
Hours Staffed	198	11.00
Vehicles	133	7.39
Visitors	427	23.72
# times lot full	1	0.06
Cars turned away	7	0.39
Visitors turned away	13	0.72
Time lot full (min)	20	1.11
Hikers (no dogs)	83	4.61
Hikers (w/ dogs)	24	1.33
Swimmers	308	17.11
People on horses	0	0.00
Bicyclists	62	3.44

Table 3A: July swimming perch usage

Swimming perch	Total	Average
Hours staffed	351	11.32
Vehicles (LC)	566	18.87
People (LC)	1308	43.68
People (WG)	1879	61.97
Non-swimmers	160	5.32
Swimmers	3041	100.77

Table 3B: July Wintergreen Lane trailhead usage

Wintergreen	Total	Average
Hours Staffed	339	10.94
Vehicles	488	16.16
Visitors	1984	66.16
# times lot full	29	1.00
Cars turned away	106	3.48
Visitors turned away	210	6.81
Time lot full (min)	700	22.87
Hikers (no dogs)	278	9.32
Hikers (w/ dogs)	75	2.39
Swimmers	1644	53.35
People on horses	2	0.06
Bicyclists	207	6.90

Table 4A: August swimming perch usage

Swimming perch	Total	Average
Hours staffed	334	10.77
Vehicles (LC)	461	14.87
People (LC)	1034	33.35
People (WG)	1468	47.35
Non-swimmers	168	5.42
Swimmers	2340	75.48

Table 4B: August Wintergreen Lane trailhead usage

		0
Wintergreen	Total	Average
Hours Staffed	337	10.87
Vehicles	452	14.58
Visitors	1711	55.19
# times lot full	30	0.97
Cars turned away	80	2.58
Visitors turned away	185	5.97
Time lot full (min)	765	24.68

Hikers (no dogs)	219	7.06
Hikers (w/ dogs)	68	2.19
Swimmers	1353	43.65
People on horses	2	0.06
Bicyclists	164	5.29

Table 5A: September swimming perch usage

Swimming perch	Total	Average
Hours staffed	278	9.27
Vehicles (LC)	173	5.77
People (LC)	359	11.97
People (WG)	423	14.10
Non-swimmers	134	4.47
Swimmers	652	21.73

Table 5B: September Wintergreen Lane trailhead usage

Wintergreen	Total	Average
Hours Staffed	285	9.50
Vehicles	167	5.57
Visitors	560	18.67
# times lot full	3	0.10
Cars turned away	33	1.10
Visitors turned away	59	1.97
Time lot full (min)	71	2.37
Hikers (no dogs)	151	5.03
Hikers (w/ dogs)	54	1.80
Swimmers	352	11.73
People on horses	0	0.00
Bicyclists	105	3.50

Anecdotes:

Due to low pond levels towards the end of the season, the water submerged only one rung of the swimming perch ladder. This led to complaints by visitors unable to climb the ladder. The swimming perch was closed from 6 - 12 on September 7 to angle it, thus submerging more rungs on the ladder. In future years, this angling should be continued when pond water levels are low.

Rangers working the 7:00 am - 10:00 am shifts recorded few visitors. On average, there were 3 visitors per day during this time period. This indicates that start times for summer rangers can be adjusted without impacting data collection.

Visitors have commented that dogs often swim in the pond once the swimming perch is removed. To avoid this, new signage should be provided to educate the public on the dog policy and regular check-ins could be completed. Additionally, neighbors commented on nighttime trespassers. Additional signage could be posted indicating that trespassing issues should be conpolice.

Sepiessa Point Reservation

Data:

Sepiessa Point Reservation was attended mostly Thursdays - Sundays (with one Wednesday in July) from June 16th - September 2nd of 2022. Data this year were collected at the northerly trailhead while data in 2021 were collected at the southerly trailhead lot (by the boat slide). When compared to 2021, total and average property use in 2022 was far greater than that in 2021 (t-test, p = 0.6 and t-test, p = 0.13, respectively), as more data can be collected when attendants are stationed in the northerly trailhead.

Most visitors were recorded in July, followed by August, June, and then September (ANOVA, p=0.13). The most visited day of the week was Sunday (ANOVA, p=0.83). There were a total of 2,898 visitors which mostly included dog-walkers (725) and kayakers (357) with few boaters (73). Issues noted at the property were mostly related to dog leashing and picking up after dogs. Additionally, many bicyclists (76) and 12 horses were recorded in the notes section. Ocean beach access was limited at the start of the summer but, via an agreement with the Trustees of Reservations at its Long Point Reservation, land bank visitors could access the ocean beach. This agreement was noted on multiple signs, marked with flags, and instructions were provided by summer rangers.

Actions to be taken:

- 1. Attend Sepiessa Point on an as-needed basis on Sundays in July and some Saturdays.
- Determine the best location for rangers. In order to adequately record property usage data, rangers should be stationed at the northerly trailhead. In order to enforce boat slide rules, rangers should be stationed at the southerly trailhead. Given the low number of boaters, the most ideal position would be the northerly trailhead.
- 3. Include bicyclists in data collection.

Graphics:

In 2022, there was a total of 2,898 visitors and 1,446 vehicles (Figure 1). For a total of 823 minutes, the trailheads were full however no vehicles needed to be turned away. There were far more kayakers (357) than trailers with boats (73).

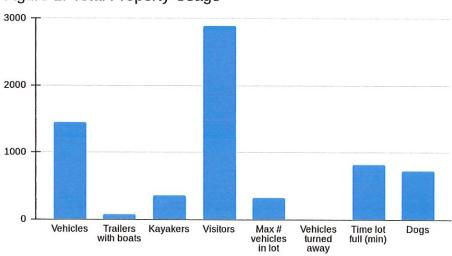


Figure 1: Total Property Usage

Figure 2 shows more property usage recorded in 2022 compared to 2021, though not significantly more (t-test, p=0.06). This is due to the ranger being stationed at the northerly trailhead rather than by the southerly boat slide. However, the average number of trailers with boats was only greater by 1 in 2021 compared to 2022. Additionally, the number of kayakers was similar between 2021 and 2022.

2022 2021

2022 2021

Vehicles Trailers with Kayakers Visitors Vehicles Time lot full Dogs

Figure 2: Average Summer Property Usage

The month of July saw the greatest total property usage followed by August (Figure 3). The exception to this is the number of minutes the trailheads fill where June had the greatest amount of time full with 45 minutes full. Property usage, however, was not significantly different between months (ANOVA, p=0.13).

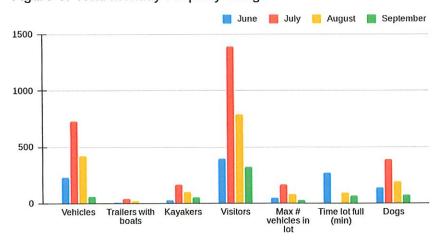
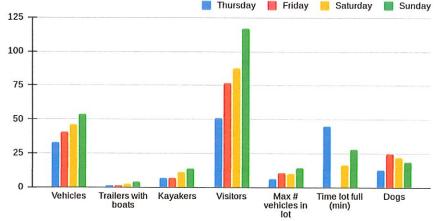


Figure 3: Total Monthly Property Usage

While differences in days of the week were not significant (ANOVA, p = 0.83), Sundays had the highest average property usage followed by Saturdays (Figure 4). Friday had the greatest average number of dogs (25) and Thursday had the greatest amount of time the trailheads were full (45 minutes).

📕 Thursday 📕 Friday 📙 Saturday

Figure 4: Average Weekly Property Usage



Data Tables:

Table 1: Property usage from June 16th - September 2nd

	Daily Average:	Total:
Vehicles	46.65	1446
Trailers with boats	2.35	73
Kayakers	11.52	357
Visitors	93.48	2898
Max # vehicles in lot	10.48	325
Vehicles turned away	0.13	4
Time lot full (min)	26.55	823
Dogs	23.39	725

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

A:		Daily Avg	Total	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
June	Vehicles	32.71	229	29.00	26	35.5	45
	Trailers with boats	1.00	7	0.33	1	2.5	0
3)	Kayakers	4.29	30	3.67	1	7.5	3
	Visitors	56.71	397	39.00	47	67.5	98
	Max # vehicles in lot	6.86	48	8.00	3	9	3
	Vehicles turned away	0.00	0	0.00	0	0	0
	Time lot full (min)	38.57	270	90.00	0	0	0
	Dogs	20.00	140	14.67	27	23.5	22

В:		Daily Avg	Total	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
July	Vehicles	45.63	730	48	39.00	45.4	49.00	50.67
	Trailers with boats	2.56	41	2	1.50	2	1.67	6
•	Kayakers	10.56	169	14	7.25	8	11.33	17.33
	Visitors	86.81	1389	84	66.50	84.2	97.00	109
	Max # vehicles in lot	10.50	168	13	5.00	11.6	12.67	13
	Vehicles turned away	0.27	4	0	0.00	0	1.33	0
	Time lot full (min)	25.87	388	0	50.25	0	15.67	46.67
	Dogs	19.56	313	22	11.00	24.2	26.67	15.33

C:		Daily Avg	Total	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
August	Vehicles	42.30	423	29.00	40.5	51.5	71
	Trailers with boats	2.30	23	2.33	1.25	4	3
	Kayakers	10.00	100	9.00	7.5	14	15
	Visitors	78.80	788	41.67	79.75	92.5	159
	Max # vehicles in lot	9.22	83	7.00	11.5	8	29
	Vehicles turned away	0.00	0	0.00	0	0	0
	Time lot full (min)	9.50	95	8.33	0	35	0
	Dogs	19.40	194	13.33	25.5	13	26

D:		Daily Avg	Total	AVG Thursday	AVG Friday
September	Vehicles	32	64	33	31
	Trailers with boats	1	2	2	0
	Kayakers	6.5	58	0	3
	Visitors	64.8	324	55	53
	Max # vehicles in lot	5.2	26	3	7
	Vehicles turned away	0	0	0	0
	Time lot full (min)	14	70	0	0
	Dogs	15.6	78	10	20

Table 3: Property use averages by day of the week

	Thursday	Friday	Saturday	Sunday
Vehicles	33.00	40.55	45.86	53.6
Trailers with boats	1.45	1.45	2.57	4.2
Kayakers	7.00	6.73	11.00	14
Visitors	51.18	76.36	87.29	116.8
Max # vehicles in lot	6.18	10.36	10.29	14.2
Vehicles turned away	45.09	0.00	16.71	28
Time lot full (min)	12.55	24.55	21.86	18.8
Dogs	33.00	40.55	45.86	53.6

Anecdotes:

The land bank knew in advance of the summer season that access to its Tisbury Great Pond Beach would be unavailable due to barrier dune growth. After an agreement was made with the TTOR, 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 Ranger information provided were acknowledged.

One issue at Sepiessa Point Reservation is dog policy enforcement. A total of 673 dogs was recorded on the property. When rangers are present, they can enforce leash policies and dog waste collection by owners. If this property is not attended to, then trails should be routinely checked for dog waste as this can become an issue.

In both 2021 and 2022, data show that more kayakers were visiting than boaters. This information may help inform summer ranger managers where rangers should be located. By having a ranger at the property entrance, rangers can collect more data on dogs, people walking, and kayakers.

It was noted by many rangers that there are often bikers on trails, yet this is not listed on the data sheet. Additional notes on the data sheet included 6 days when 2 horseback riders visited the property (for a total of 12 horseback riders). These data could be helpful when assessing trail usage. 17 days included anecdotal bicyclist data with 4 days in June, 9 days in July, and 5 days in August. On these days the following was recorded:

- Total of 76 bicyclists
- Most bicyclists were noted (57%) in July and on Fridays (37%)

Bicyclists	Wednesday	Thursday	Friday	Saturday	Sunday	Total:
June		4			2	6
July	2	2	23	11	8	46
August		5	5	14		24
Total:	2	11	28	25	10	76

Tashmoo Preserve

Data:

Tashmoo Preserve is a property that routinely has many visitors, causing the lot to fill. Tashmoo Preserve had a total of 11,028 visitors, 3,116 vehicles, and the lot was filled for 5,436 minutes (90.6 hours) in 2022. In contrast, 2021 had 6,584 visitors, 1,890 vehicles, and the lot was filled for 7,665 minutes (127.75 hours). While 2022 had more vehicles, 2021 had a greater amount of time the lot was full (t-test, p = 0.4). This may be due to rangers not properly guiding cars into parking spots in 2021. If people do not park tightly, the parking lot can fill without being at capacity.

The property was busiest in the months of July and August (t-test, p=0.20) with weekends and Tuesdays having the most property usage (t-test, p=0.92). The number of attending days was similar between 2021 and 2022 in June and July but attending nearly doubled from August 2021 to August 2022 (t-test, p=0.17). September of 2021 had only one day with a ranger while 2022 had 16 September days with a ranger. Even with more days attended, multiple bonfires and large amounts of trash were found on the beach side of the lot.

Actions to be taken:

- 1. Prioritize this property when scheduling rangers due to the number of visitors.
- 2. Add a "People Fishing" column to the datasheet. Many rangers included counts of the number of people fishing on datasheets because of the high number of people fishing.
- 3. Communicate between rangers, the land bank, and the town when changes are made.

Graphics:

Tashmoo Preserve saw a greater average property use in 2022 compared to 2021 (Figure 1). This was only a slight increase (t-test, p=0.54) with the exception of the amount of time the parking lot was full. On average in 2021, the lot was full for 134 minutes per day while in 2022, the lot was full, on average, for only 63 minutes per day.

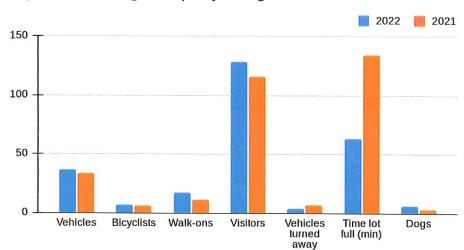


Figure 1: Average Property Usage

While not significantly different (t-test, p = 0.17), there were more days attended in 2022 (86 days) than in 2021 (57) (Figure 2). In every month but July, there were more days with a ranger stationed at Tashmoo in 2022 than in 2021. The greatest discrepancy was in September, where in 2022 there were 16 days with a ranger whereas in 2021, there was only 1 day with a ranger.

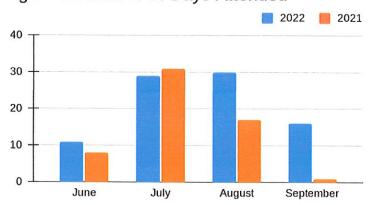


Figure 2: Number of Days Attended

The most visited month was July, followed by August and September (Figures 3A), but the difference between monthly usage was not significantly different (ANOVA, p=0.20). This includes vehicles turned away (225) and walk-ons shown (612) in Figure 3B. However, August had the most bicyclists (239) and dogs (167).

Figure 3A: Total Property Usage

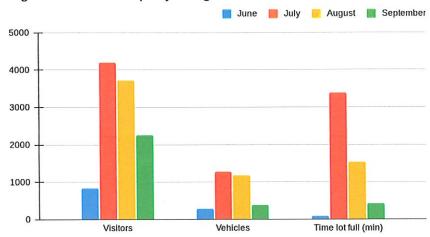
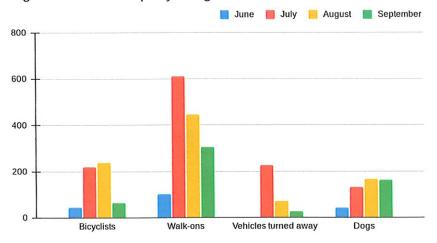
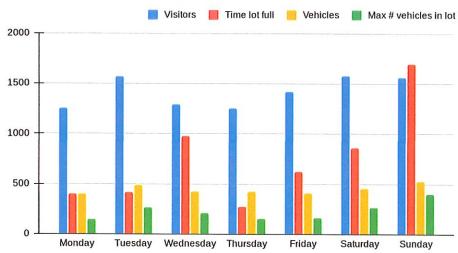


Figure 3B: Total Property Usage



Tuesdays, Saturdays, and Sundays had the most visitors, vehicles, maximum number of vehicles in the lot, walk-ons, and bicyclists (Figures 4A and 4B). The lot was full and vehicles were turned away most often on Wednesdays, Sundays, and Saturdays. Dogs were most often recorded on Sundays, Tuesdays, and Fridays. However, differences in days of the week did not significantly differ (ANOVA, p = 0.93).

Figure 4A: Total Property Usage



Walk-ons Bicyclists Dogs Vehicles turned away

200

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Figure 4B: Total Property Usage

Data tables:

Table 1: Lot usage

	Daily Average:	Total:
Vehicles	36.23	3116
Bicyclists	6.60	568
Walk-ons	17.07	1468
Visitors	128.23	11028
Max # vehicles in lot	15.38	1323
Vehicles turned away	3.80	327
Time lot full	63.21	5436
Dogs	5.83	501

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

A:		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Sunday
June	Vehicles	26.27	289	34	32.33	26	19	11	16
	Bicyclists	4.18	46	3.5	4.67	6.67	0	1	4
	Walk-ons	9.27	102	10	11.33	8.33	0	10	13
	Visitors	76.36	840	83	106	70.33	59	30	56
	Max # vehicles in lot	16.91	186	13	36.33	12	5	5	5
	Vehicles turned away	0.18	2	0	0.33	0.33	0	0	0
	Time lot full (min)	8.64	95	0	11.67	20	0	0	0
	Dogs	3.82	42	6.5	4	2	3	4	4

B:		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
July	Vehicles	44.17	1281	36.5	43.25	38.5	44.33	49	44.4	51.4
	Bicyclists	7.55	219	8.25	5.5	10.5	5	7.5	6.2	9.2
	Walk-ons	21.10	612	19	23.5	16.75	18	22	16.4	30.2
	Visitors	144.93	4203	120.75	141	126,5	155	181.25	147	145
	Max # vehicles in lot	16.13	387	14	15	17	16.67	17.25	16.8	58.2
	Vehicles turned away	7.76	225	6.5	4.75	9.25	0.67	7.5	7.4	14.8
	Time lot full (min)	116.93	3391	92	30	134.25	56.33	132.5	69.2	244.4
	Dogs	4.48	130	2.25	5.5	4	4	6.75	3.8	5

C:		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
August	Vehicles	38.90	1167	31.25	40.8	33.6	46.5	37	39.5	44.5
	Bicyclists	7.97	239	3.25	8.4	7.4	7.25	7	14.75	7.75
•	Walk-ons	14.93	448	10	18.2	16.2	15.5	12	19.75	11.75
	Visitors	124.27	3728	101.5	131.2	105.6	122.5	124.75	152.5	134.75
	Max # vehicles in lot	15.64	391	11	17.4	17.4	14.75	16.25	17.25	16
300+	Vehicles turned away	2.40	72	0	1.6	2.6	1	1.25	7.75	2.75
	Time lot full (min)	50.83	1525	0	31.6	75	26.75	22.5	113.75	85
	Dogs	5.57	167	3	7.6	3.2	6.5	5	5	8.75

D:		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
Septemb er	Vehicles	23.69	379	30.5	6	19	27.67	27.5	24	25.67
	Bicyclists	4.00	64	5.5	0	0	4	6.5	4.67	4.67
	Walk-ons	10.56	306	11	3	11	6	7.5	10.33	22
	Visitors	94.04	2257	99.5	13.5	50	79.00	80.5	77.67	80
	Max # vehicles in lot	17.10	359	11.5	3	15	13	13	36.67	11.67
	Vehicles turned away	1.17	28	3.5	0	0	0	0	0	4.67
	Time lot full (min)	17.71	425	14.5	0	0	0	0	18.33	44.33
	Dogs	6.75	162	9.5	2.5	2	7.666666 667	6.5	4	9.67

Table 3: Total lot data by day of the week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Vehicles	400	486	419	421	410	452	528
Bicyclists	64	78	99	56	72	104	95
Walk-ons	158	225	184	134	161	192	277
Visitors	1254	1565	1295	1251	1415	1578	1560
Max # vehicles in lot	149	262	206	153	165	263	395
Vehicles turned away	33	28	51	6	35	68	99
Time lot full	397	412	972	276	620	856	1695
Dogs	53	77	40	64	64	51	93

Anecdotes:

In previous years, Tashmoo Preserve was previously noted as a property with many negative visitor-ranger interactions. This summer, rangers were encouraged to approach visitors with increased cordiality when turning vehicles away. According to rangers, this elicited more positive interactions between the land bank and visitors.

Keeping good communications with the town throughout the summer would help the land bank provide information to visitors about changes on the property. The town added locks to the portable lavatory and also tested water quality during the summer without sharing this information with the land bank. Additionally, trash and small bonfires were often found on the beach by rangers upon arrival, possibly indicating a need for checking the property off hours by police.

Multiple rangers noted that there were many people fishing, yet this is not a column listed on the data sheet. This data could be helpful when determining property usage. 15 days included anecdotal fishing data with 5 days in July, 2 days in August, and 8 days in September. On these days the following was recorded:

- Total of 199 people fishing
- Most people came to the property to fish in September (62%) and on Saturdays (25%)

Fishing data from June 13 to September 18:

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total:
July			8		18	11	16	53
August	11	11						22
September	14	6		39	10	38	17	124
Total	25	17	8	39	28	49	33	199

Wilfrid's Pond Preserve

Data:

Wilfrid's Pond Preserve had a total of 4,013 visitors in the 2022 season. This is an insignificant increase from 2021 with its total of 3,052 visitors (t-test, p=0.88). Most property use metrics increased from 2021 to 2022 with the exception of the number of dogs. This was due to a clarification of the dog policy where, starting June 25th, dogs were not allowed on the property from April to September. Once signage was posted, visitors were receptive and no serious issues resulted from this.

The number of days attended was similar in 2021 and 2022 with a total of 67 days (t-test, p=0.38) from June 13th to September 11th. 2022 had greater average property use than 2021 (t-test, p=0.22). The busiest month was July (ANOVA, p=0.13) and the busiest day of the week was Sunday (ANOVA, p=0.36).

Actions to be taken:

- Rangers should be prioritized from Fridays to Sundays given the high volume of visitors on those days of the week. Further attending days should include Tuesdays, when the most weekday property usage is seen.
- 2. Dog policy signage should be re-posted and checked throughout the season.

Graphics:

On average, 2022 had greater property use than 2021 (Figures 1A and 1B, t-test, p = 0.22). The exception is the number of dogs, which was three times greater on average in 2021 (3 dogs/day) than in 2022 (1 dog/day).

Figure 1A: Property Use Averages

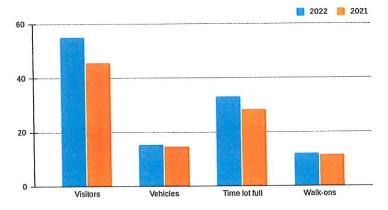
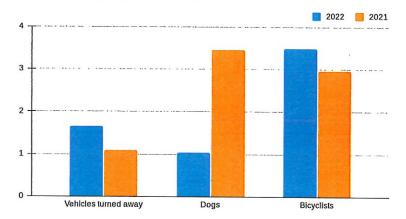


Figure 1B: Property Use Averages



The busiest month was July across all property use metrics (Figures 2A and 2B). While most metrics follow the pattern of a peak in July, followed by August, this was not true of the number of dogs because of the dog policy. These changes across months were not statistically significant (t-test, p=0.13).

Figure 2A: Monthly Property Usage

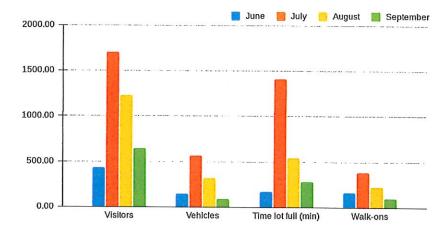
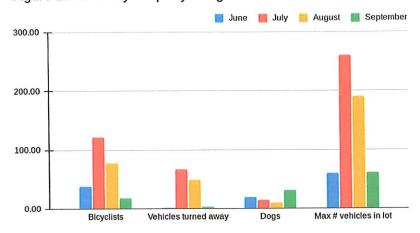


Figure 2B: Monthly Property Usage



While the days of the week do not significantly differ from one another (ANOVA, p = 0.36), the overall pattern shows total property usage to be the greatest on Sundays. For visitors and walk-ons, the next popular days were Tuesdays. Fridays were also popular for visitors with 502 in total. Thursday saw many bicyclists (39) and Saturday had the second-most number of vehicles turned away (27) after Sunday.

Figure 3A: Weekly Property Usage Totals

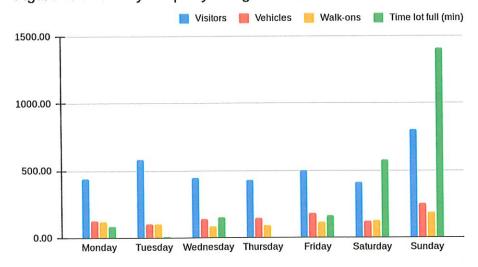
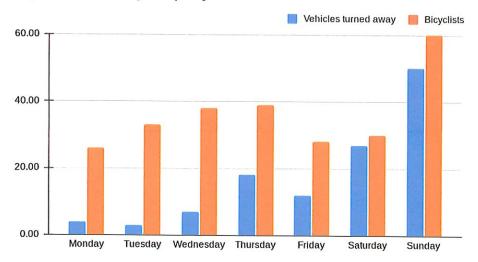


Figure 3B: Weekly Property Use Totals



Data Tables:

Table 1: Property usage (June 13th - September 11th)

Summer 2022:	Daily Average:	Total:
Vehicles	15.26	1,114
Bicyclists	3.48	254
Walk-ons	11.85	865
Visitors	54.97	4,013
Max # vehicles in lot	7.82	571
Vehicles turned away	1.66	121
Time lot full (min)	33.00	2,409
Dogs	1.04	76

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

A:		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
June	Vehicles	11.00	143	8.67	14	7	10.33	7	21	24
	Bicyclists	2.92	38	1.33	4	4	3.33	3	4	4
1	Walk-ons	12.46	162	12.33	8	12	8.67	14	31	8
	Visitors	33.38	434	26.00	37	28	25.33	25	83	55
	Max # vehicles in lot	4.62	60	4.00	7	3	3.67	3	9	9
	Vehicles turned away	0.15	2	0.00	0	0	0.00	0	1	1
	Time lot full (min)	13.08	170	0.00	0	0	0.00	0	20	150
	Dogs	1.54	20	3.67	0	2	1.00	2	0	0

B:		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
July	Vehicles	18.73	562	13.25	13.25	17.75	18.50	21.4	19.75	25
	Bicyclists	4.03	121	3.00	4.00	4.00	3.00	4.0	6.00	4
1	Walk-ons	12.63	379	11.50	11.25	9.00	6.00	11.8	21.75	16
	Visitors	56.83	1705	43.00	43.50	54.25	46.75	63.0	66.50	75
	Max # vehicles in lot	8.67	260	5.75	5.50	7.75	6.75	15.8	8.25	9
	Vehicles turned away	2.23	67	1.00	0.75	0.50	0.00	0.8	4.25	7
	Time lot full (min)	47.07	1412	21.25	2.00	16.25	0.00	17.2	93.75	159
	Dogs	0.50	15	1.50	1.25	0.75	0.25	0.0	0.00	0

C:		Daily Avg	Total	AVG Monday	AVG Tuesday	AVG Wednesday	AVG Thursday	AVG Friday	AVG Saturday	AVG Sunday
August	Vehicles	12.76	319	10	8	13.00	14.00	13.00	21	19.50
	Bicyclists	3.08	77	2	3	3.75	5.33	1.00	2	5.00
	Walk-ons	9.04	226	7	11	6.50	9.33	5.33	10	14.50
	Visitors	49.12	1228	28	74	43.75	45.33	31.67	62	61.75
	Max # vehicles in lot	7.60	190	5	13	6.25	3.00	9,33	9	7.25
	Vehicles turned away	1.96	49	0	0	1.25	6.00	2.67	9	2.25
	Time lot full (min)	21.76	544	0	0	21.00	0.00	15.00	185	57.50
	Dogs	0.40	10	0	1	0.25	0.33	0.33	0	0.00

D:		Daily Avg	Total	AVG Monday	AVG Thursday	AVG Friday	AVG Sunday
September	Vehicles	18.00	90	23	9	20	19
	Bicyclists	3.60	18	2	1	0	8
	Walk-ons	15.00	98	6	15	13	21
	Visitors	71.78	646	52	31	43	64
	Max # vehicles in lot	6.78	61	8	4	9	8
	Vehicles turned away	0.33	3	0	0	0	2
	Time lot full (min)	31.44	283	0	0	33	115
	Dogs	3.44	31	8	5	6	5

Anecdotes:

Clarifications to the dog policy were accompanied by signage. Three signs were removed (likely by visitors) early on, but the fourth sign posted was not removed from the property. Kiosks should be checked and updated before the summer season starts and throughout the season.