Trail Use at
Emma Long Metropolitan Park
2023 Update

Balcones Canyonlands Preserve Investigative Report IP 2023



City of Austin, Austin Water Wildland Conservation Division
Balcones Canyonlands Preserve
Austin, Texas

INTRODUCTION

Emma Long Metropolitan Park (ELMP) is dual-managed by City of Austin's Parks and Recreation Department and Austin Water as part of the Balcones Canyonlands Preserve (BCP). The BCP was established in 1996 under an Endangered Species Act permit to mitigate for habitat loss from development and to protect seven federally endangered species and 28 species of concern in western Travis County. ELMP is dominated by mature Ashe juniper (*Juniperus ashei*) and oak (*Quercus* spp.) woodland and supports a breeding population of endangered Golden-cheeked Warblers (*Setophaga chrysoparia*).

Visitor use on ELMP is "grandfathered" at 1996 levels (BCP 2018). The purpose of this report is to document visitor use levels over time. Turkey Creek Trail is a popular loop trail with public access and free admission. The trailhead is located at 1600 City Park Road, Austin, TX (30.333685, -97.840084) and has parking available for approximately 30 vehicles. Turkey Creek Trail is open to hiking and off-leash dog use. A separate unauthorized trail is located a half mile beyond Turkey Creek at 1984 ½ City Park Road (30.335678, -97.840627) and has parking for approximately 10 vehicles. This social trail has multiple trailheads and several loops, but the principal pathway follows a dirt road associated with the old Civilian Conservation Corps camp (hereafter known as the *CCC Road*).

Turkey Creek Trail also coincides with a long-term Golden-cheeked Warbler (GCWA) monitoring plot. In 2000, BCP staff established a 100-acre (40.5 ha) monitoring plot that overlays the central loop portion of the Turkey Creek Trail. In 2009, BCP staff initiated a long-term demography study of GCWA that involves intensive monitoring of a marked (color-banded) population. A summary of intensive monitoring results is provided in the City of Austin and Travis County Annual Report (2023).



Occasionally off-road vehicle users share Turkey Creek Trail with off-leash dogs and hikers.

METHODS

Game cameras are a common tool for documenting trail use. They can be programmed to double-shoot and trigger at intervals to capture all but a very small proportion (~ 1%) of trail users (when clusters of people pass back and forth in front of the camera simultaneously). Data are downloaded in the field onto a portable storage device and reviewed later. Game cameras are excellent for tabulating numbers of dogs and humans and can be deployed for an extended duration to record average trail use over a period of time.

For the last four years, we've installed two game cameras at the same locations approximately 200 yards from the Turkey Creek trailhead and approximately 50 yards north of the parking area along the CCC Road. The game cameras are active for up to 3 weeks (18-22 days) during April and May. We select a date range that avoids the Easter holiday and includes three weekends. Since many trail users are making a looped return, we avoid double counting by only recording humans and dogs entering the trail traveling from right to left in the picture frame. The game camera is positioned at ground level to capture foot traffic only.



The game cameras fail to detect an unknown number of off-leash dogs that pass behind or beyond the camera's field of view.

RESULTS AND DISCUSSION

Average Numbers of TURKEY CREEK TRAIL Users in April-May from 2020-2023

	Weekday		Weekend	
Year	**Humans**	**Dogs**	**Humans**	**Dogs**
2020*	171	77	450	180
2021	56	39	224	106
2022	68	60	265	141
2023	64	56	261	134

*Cameras deployed during Covid-19 lockdown

Trail use surged during the Covid-19 lockdown of 2020 on Turkey Creek Trail. Weekends have typically 3-4 times greater traffic than weekdays, although the difference was less during lockdown. During weekdays, many trail users are accompanied by dogs, including several professional dog walkers. On weekends, there's a higher proportion of trail users hiking without dogs.

Percent Change in Number of TURKEY CREEK TRAIL Users between Successive Years

	Weekday		Weekend	
Year	**Humans**	**Dogs**	**Humans**	**Dogs**
2021 - 2022	+21%	+54%	+18%	+33%
2022 - 2023	-6%	-7%	-2%	-5%

With limited data, we cannot determine trends. High volume of trail use in 2020 was unprecedented and constituted an outlier. There was a marked increase in trail use between 2021 and 2022. Average number of dogs on weekdays increased by over 50%. Careful review of the photos revealed that the increase was mostly attributed to professional dog walkers.



Professional dog walkers are observed mostly on weekdays.

In 2023, trail use declined slightly on Turkey Creek Trail. There was a slight increase in the number of different professional dog walkers compared to 2022, but pack sizes were generally smaller. It's possible that the professional dog walkers are adjusting their routes in response to the presence of the game cameras. This year, we noted packs of dogs entering but not returning past the camera and the presence of professional dog walkers on the trails east of City Park Road and south of the Motorcycle Park where dogs are usually seldom observed.

Average Number of CCC ROAD Users in April-May from 2020-2023

	Weekday		Weekend	
Year	**Humans**	**Dogs**	**Humans**	**Dogs**
2020*	19	9	77	21
2021	9	10	35	15
2022	12	9	26	13
2023	15	17	51	16

*Cameras deployed during Covid-19 lockdown

Visitation on the social trail along the CCC Road was highest during the Covid-19 lockdown of 2020, but traffic appears to be gradually increasing since 2021. Our data underrepresent the number of users on this social trail. Unlike Turkey Creek Trail, where most trail users travel past the camera both coming and going, the social trail has multiple access points and several loops. When trail users pass by the game camera only one time traveling from left to right, they are not counted.

Percent Change in Number of CCC ROAD Users between Successive Years

	Weekday		Weekend	
Year	**Humans**	**Dogs**	**Humans**	**Dogs**
2021 - 2022	+33%	-10%	-24%	-13%
2022 - 2023	+25%	+89%	+96%	+23%

Trail use on the CCC Road might be increasing as a result of overall population growth and greater public awareness of the trail.



Cycling is popular along the CCC Road.

Total Number of Cyclists over 20-22 Days on CCC ROAD from 2020-2023

	2020*	2021	2022	2023
Total Number of Cyclists	42	14	7	22

*Cameras deployed during Covid-19 lockdown

On the CCC Road, cyclists were most abundant during the Covid-19 lockdown of 2020. Trail use by cyclists appears to be gradually increasing since 2021.

Game cameras are often used to document wildlife. At ELMP, our cameras have recorded several common mammal species. Except for squirrels, almost all photos of wildlife are captured at night.



Gray fox



Striped skunk



Ringtail



White-tailed deer



Coyote



Raccoons

CONCLUSION

The Austin metropolitan area has nearly doubled in population since 2000 (*Austin Chamber of Commerce 2019*). Commensurate with urban growth, increased visitation to our parks might be impacting facilities, natural resources, and wildlife communities (Buckley 1991).

During the last four years, we recorded a spike in visitor use during the Covid-19 lockdown of 2020 and created a baseline for current activity. We documented an increase in use by professional dog walkers on all trails and cyclists on the social trail that follows the CCC Road.

LITERATURE CITED

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