

# LASTING OR SHORT-LIVED

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## Bike and Pedestrian Volumes on Trails in Arlington County, Before, During, and After the COVID pandemic

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Bicycle and Pedestrian Subcommittee  
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# Background

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- In the months that followed the arrival of the pandemic, trails and parks provided relief to residents living under stay-at-home orders. Gyms were closed and there was heightened anxiety about the use of public transportation.
- Rails to Trails' 31 trail counters distributed across the country report a 73 percent year-over-year increase in volume in Spring 2020 (<https://www.railstotrails.org/COVID19/#trailcount>)
- Respondents to a nationwide travel survey expected to walk and bike more after the pandemic (COVID-19 and the Future Survey, Arizona State University-University of Illinois at Chicago (ASU-UIC))
- Today, questions remain about longer-term impact of the pandemic on walking and biking, including on the use of trails.



# Project Approach

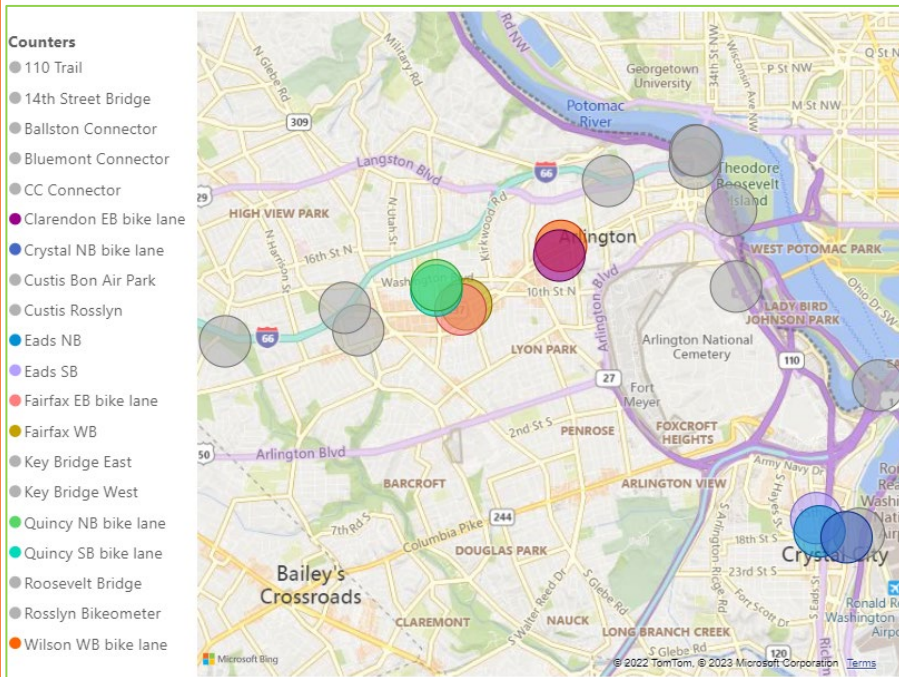
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- To learn about longer term impacts on trail use from the pandemic, TPB staff assessed data from Arlington's automatic counters
- As of January 2023, there are around 40 automatic bicycle and pedestrian counting stations available in Arlington County.
- Obtained raw data from Arlington; assessed and cleansed raw data.
- Assigned counters to two primary trail purpose groups: commuting (20 stations) or recreational (13 stations) based on the key trail characteristics, including: geographic location, weekday and weekend volume comparison, and time of day volume distribution.
- Analyzed data from stations with historical data, complete 2020 data, and complete 2020 to 2022 data.
- TPB staff also examined data from counters located in other jurisdictions in the region.

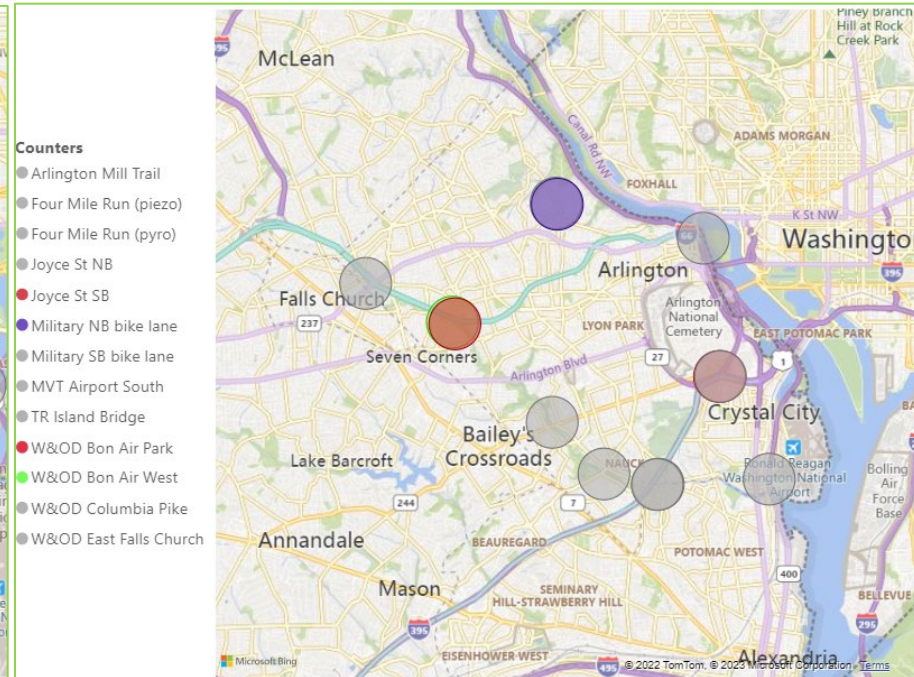


# Overview of Arlington Bicycle and Pedestrian Counters

## Locations of all the counters by primary trail purpose



Commuting Group

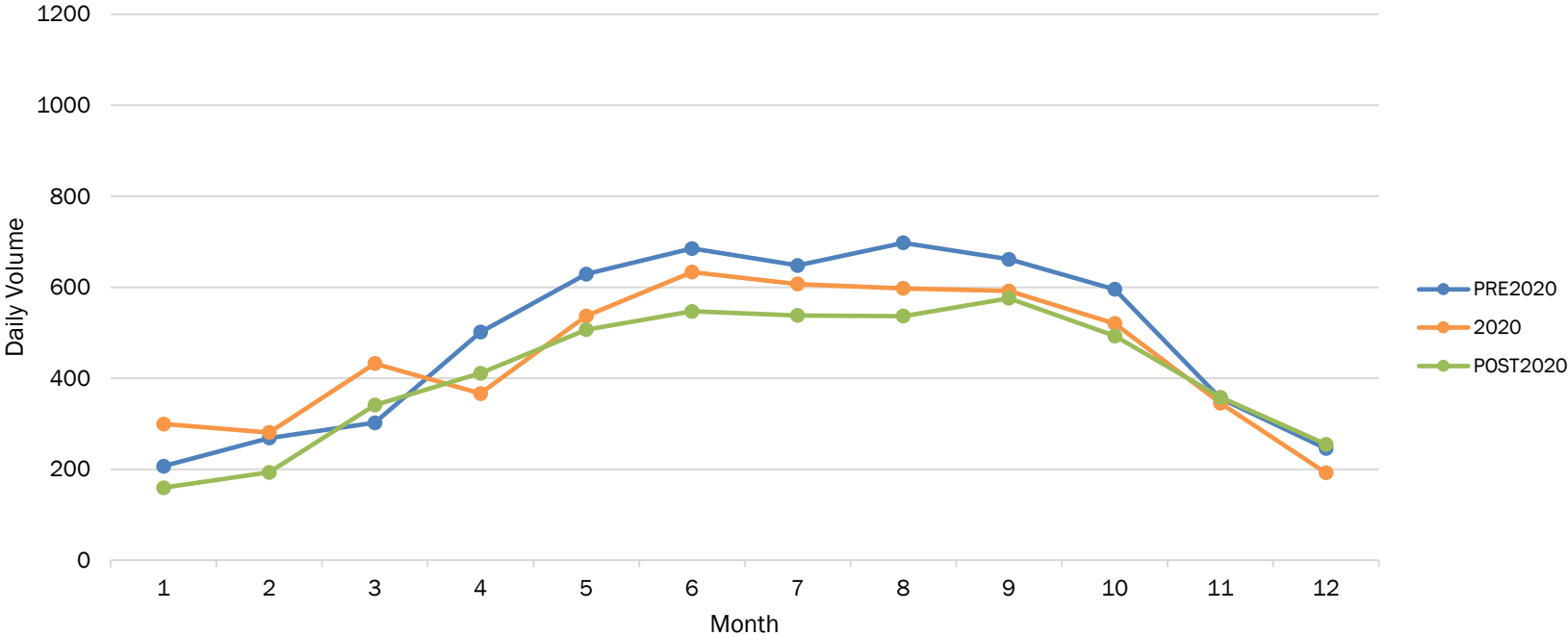


Recreational Group



# Commuter Trail Group Daily Volume by Month Pre-2020 to Post-2020, Weekdays

Weekday Volume Comparison by Month for Commuter Trails: Pre-2020 to Post-2020

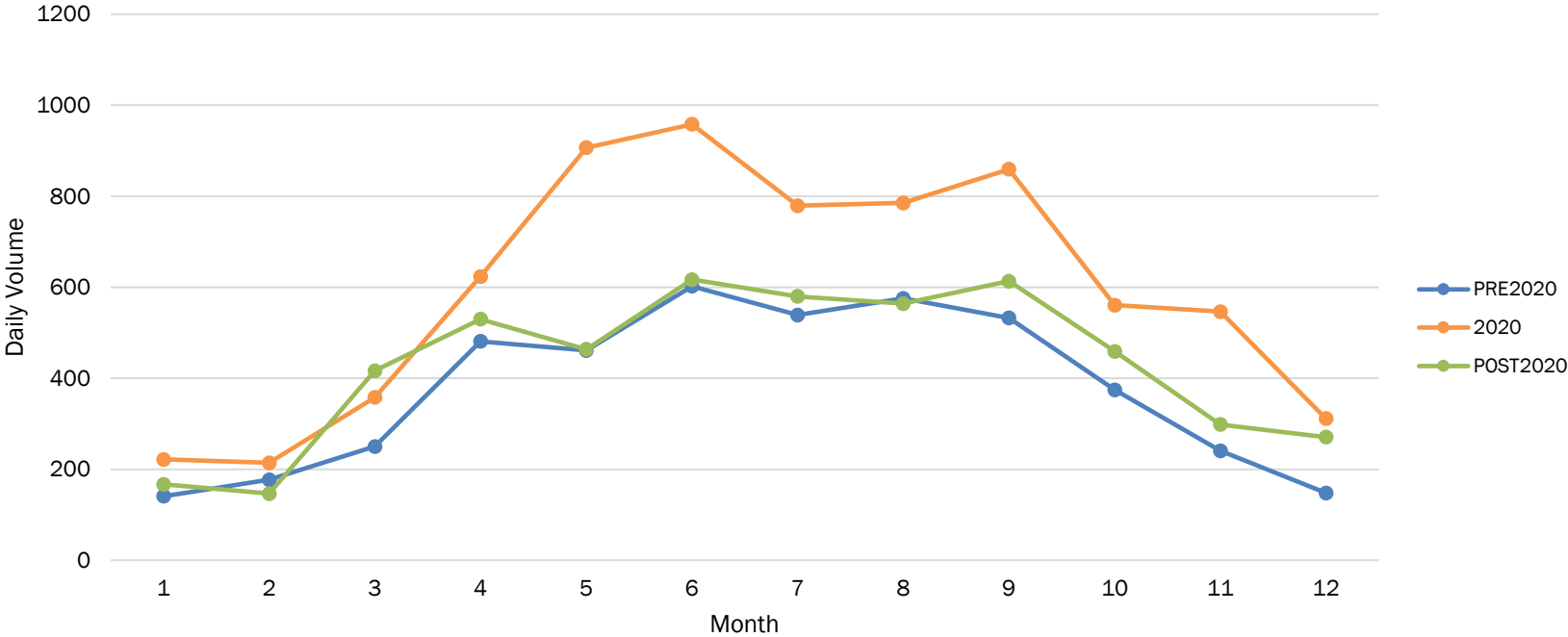


- The decline in commuter trail usage on weekdays aligns with reduction in commuting trips triggered by stay-at-home-orders in 2020 and increased telework due to COVID-19 from March 2020 until today.



# Commuter Trail Group Daily Volume by Month Pre-2020 to Post-2020, Weekends

Weekend Volume Comparison by Month for Commuter Trails: Pre-2020 to Post-2020

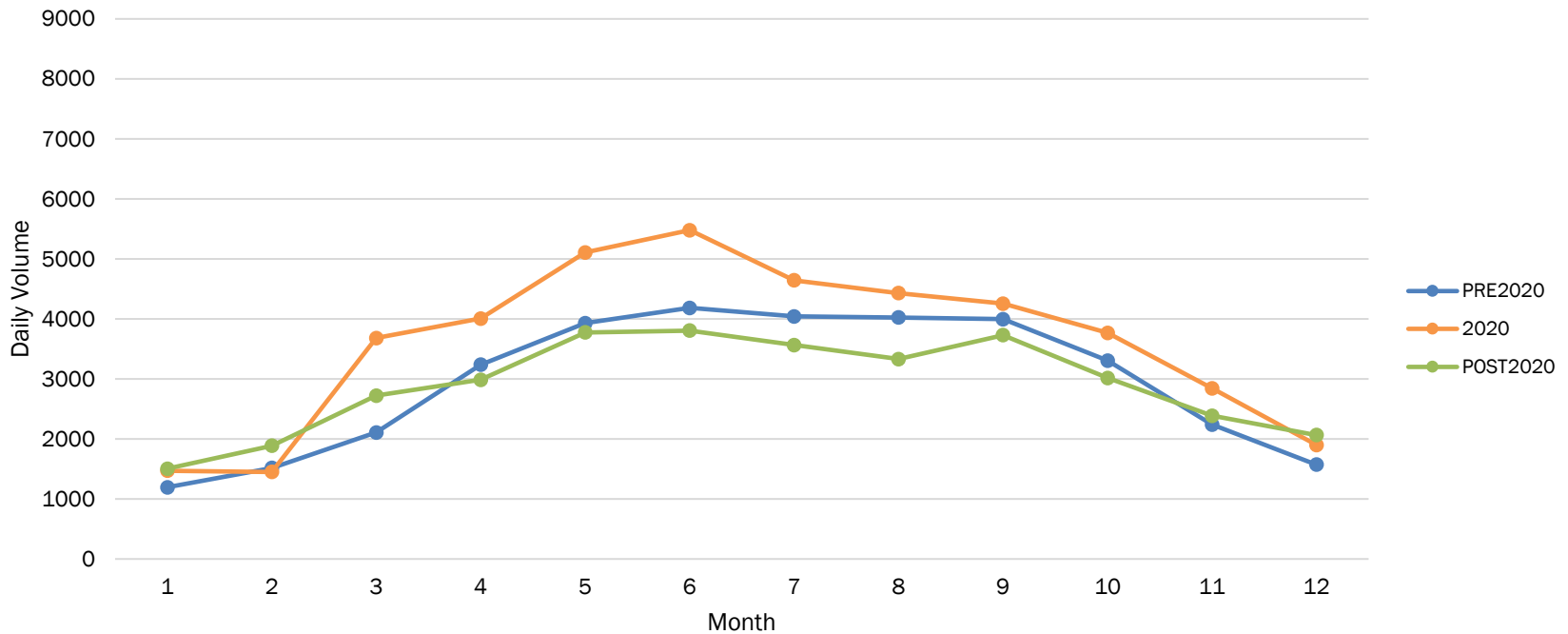


- While this data represents the commuter trail group, recreational trips are typically dominant on weekends. A large increase in use occurred in 2020, however, after the first year of the pandemic use returned to pre-pandemic levels.



# Recreational Trail Group Daily Volume by Month Pre-2020 to Post-2020, Weekdays

Weekday Volume Comparison by Month for Recreational Trails: Pre-2020 to Post-2020

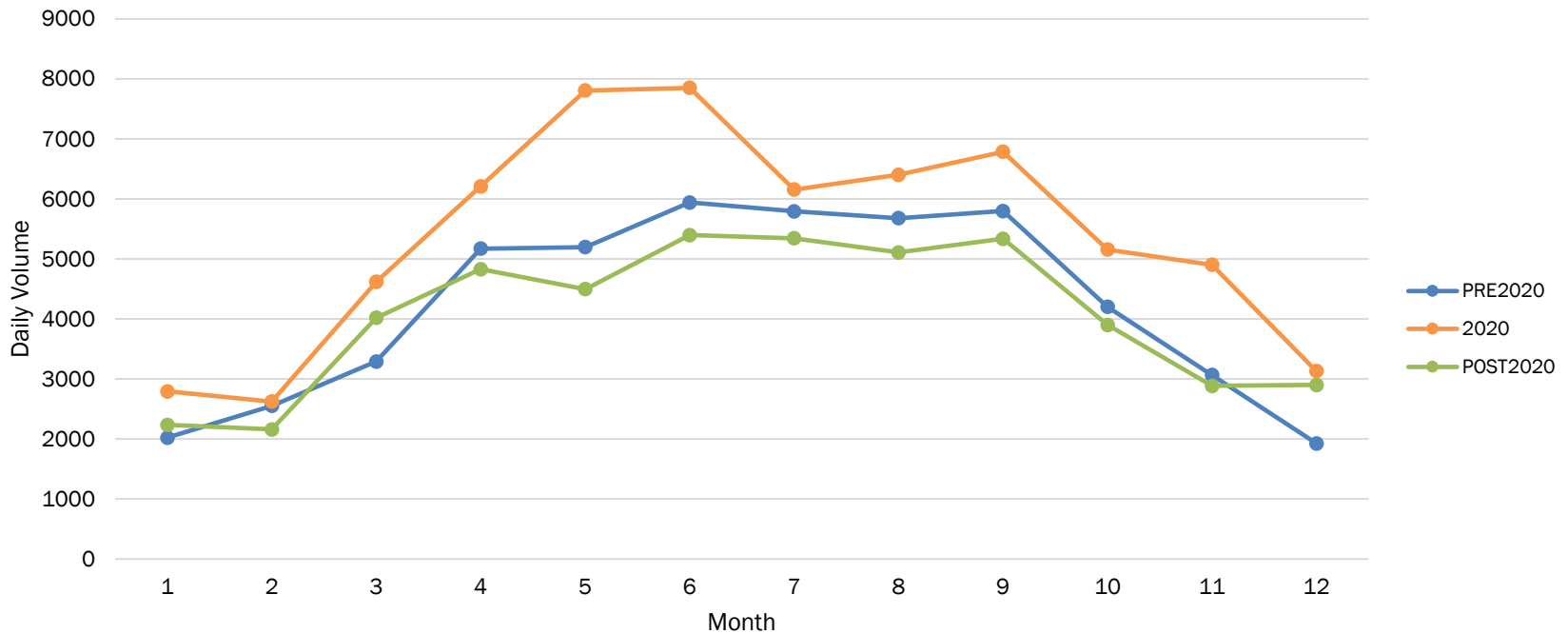


- While there was an increase in recreational trail usage in 2020, after the first year of the pandemic, recreational trail usage returned to pre-pandemic levels.



# Recreational Trail Group Daily Volume by Month Pre-2020 to Post-2020, Weekends

Weekend Volume Comparison by Month for Recreational Trails: Pre-2020 to Post-2020



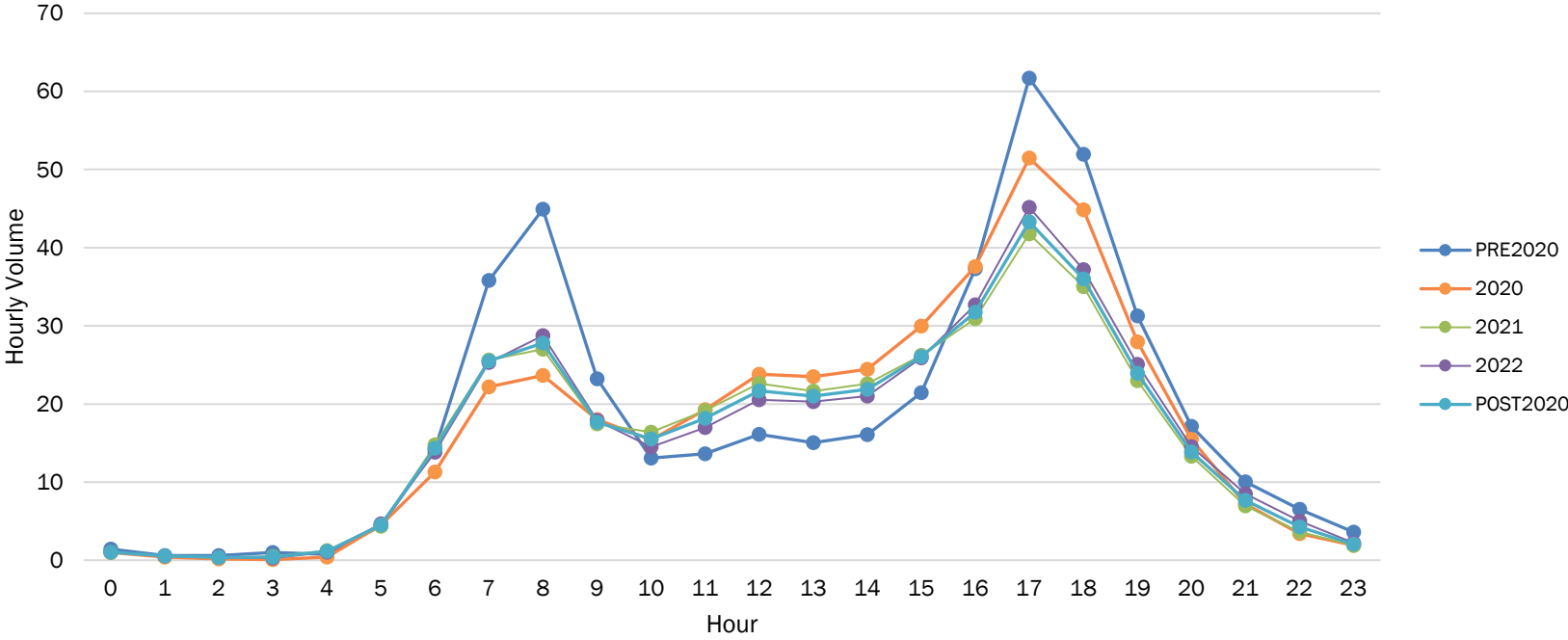
- While there was an increase in recreational trail usage in 2020, after the first year of the pandemic recreational trail usage returned to pre-pandemic levels, similar to the observation of weekdays.





# Commuter Trail Group Hourly Volume Pre-2020 to Post-2020, Weekdays

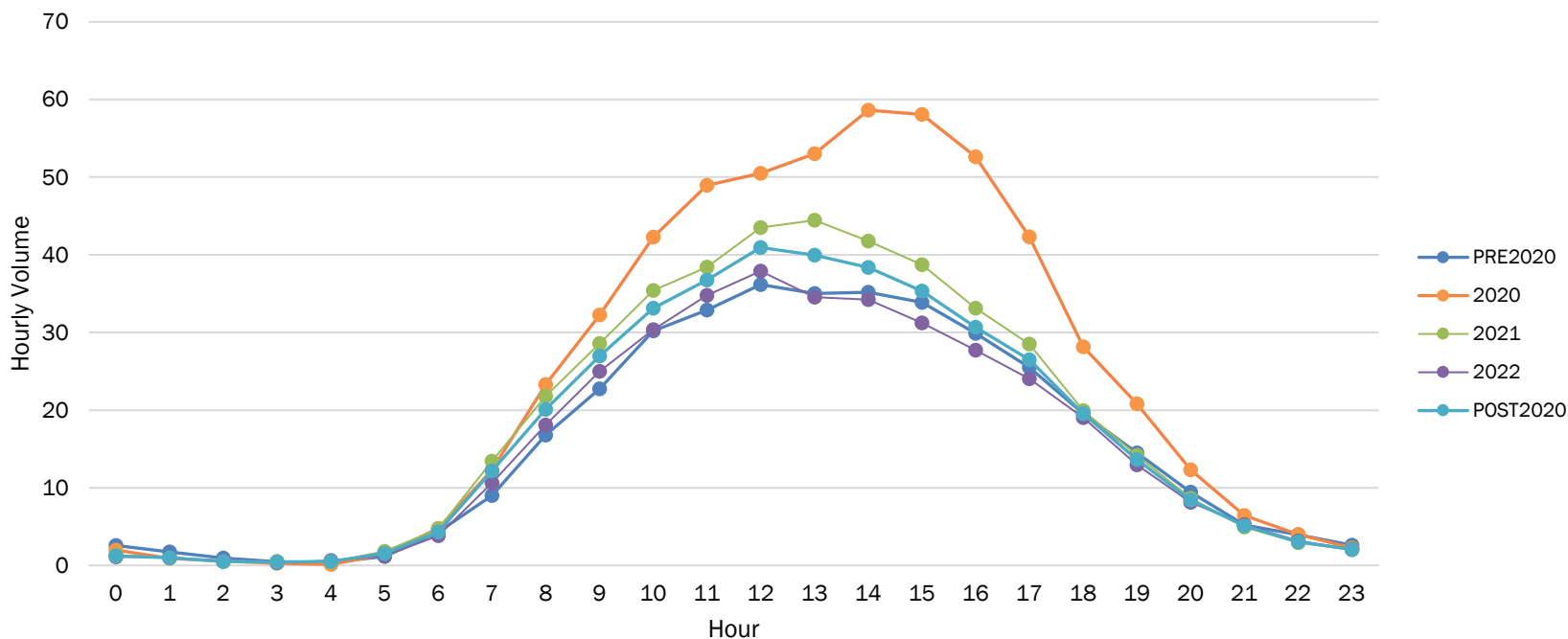
Weekday Hourly Volume Comparison for Commuter Trails: Pre-2020 to Post-2020



- Fewer people used these trails to commute(see peak period), and more people used these trails for non-commuting activities from 2020(see mid-day).

# Commuter Trail Group Hourly Volume Pre-2020 to Post-2020, Weekends

Weekend Hourly Volume Comparison for Commuter Trails: Pre-2020 to Post-2020

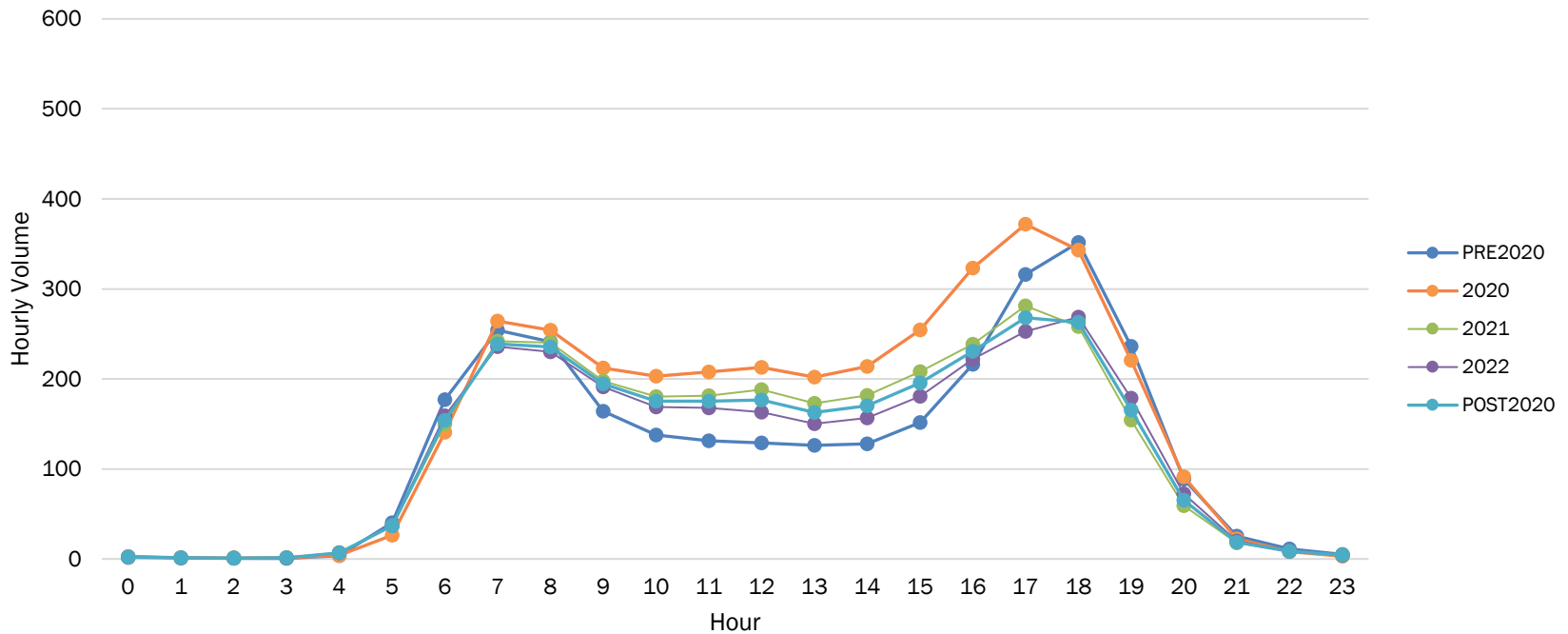


- While this data represents the commuter trail group, recreational trips are typically dominant on weekends. A large increase in use occurred in 2020 for all hours, however, after the first year of the pandemic use returned to pre-pandemic levels.



# Recreational Trail Group Hourly Volume Pre-2020 to Post-2020, Weekdays

Weekday Hourly Volume Comparison for Recreational Trails: Pre-2020 to Post-2020

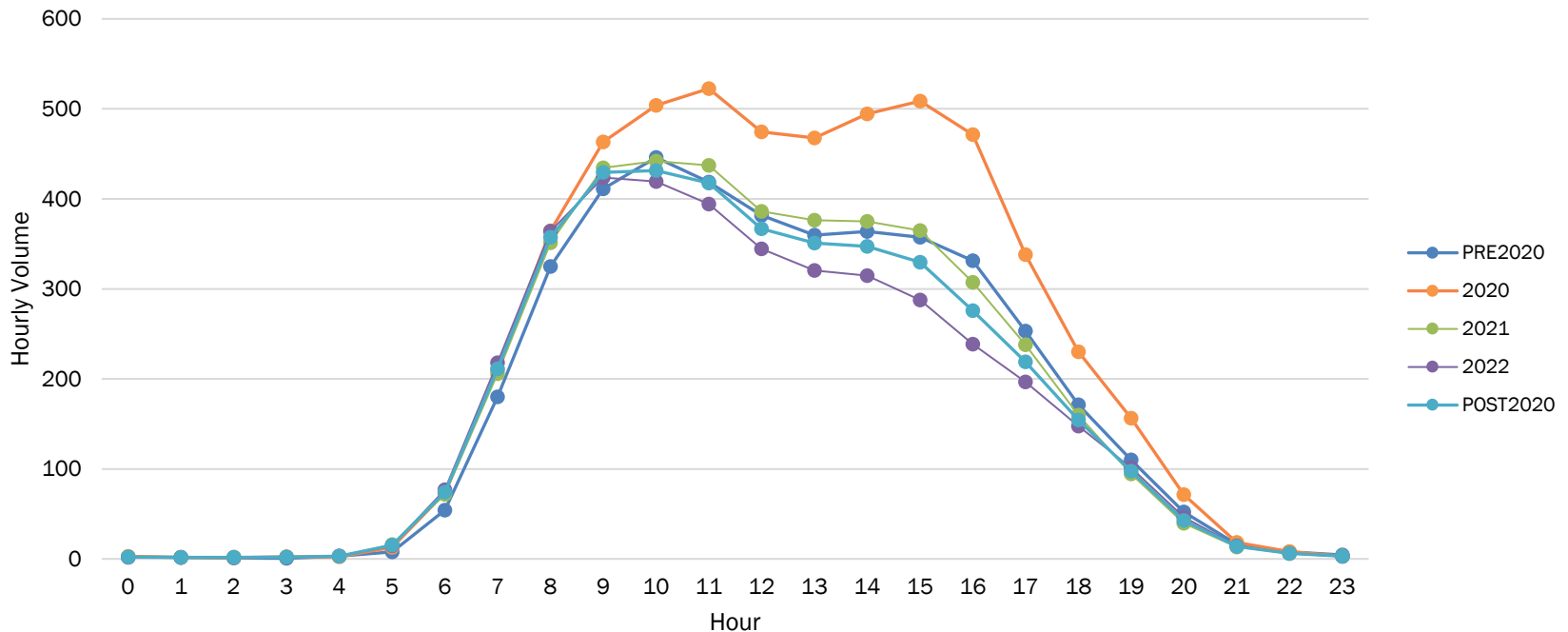


- Hourly usage of the recreational trails during weekdays gradually became more evenly distributed since the beginning of the pandemic.



# Recreational Trail Group Hourly Volume Pre-2020 to Post-2020, Weekends

Weekend Hourly Volume Comparison for Recreational Trails: Pre-2020 to Post-2020

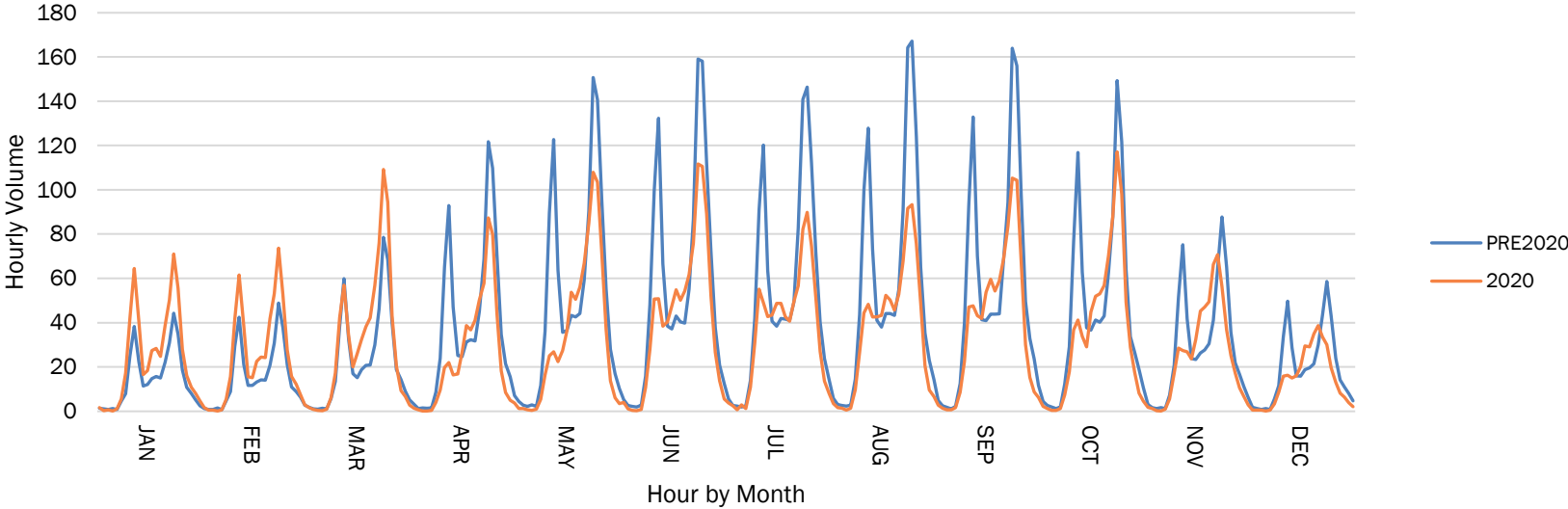


- While there was an increase in recreational trail usage in 2020 for all hours, after the first year of the pandemic, recreational trail usage returned to pre-pandemic levels.



# Commuter Trail Group Hourly Volume by Month Pre-2020 vs 2020, Weekdays

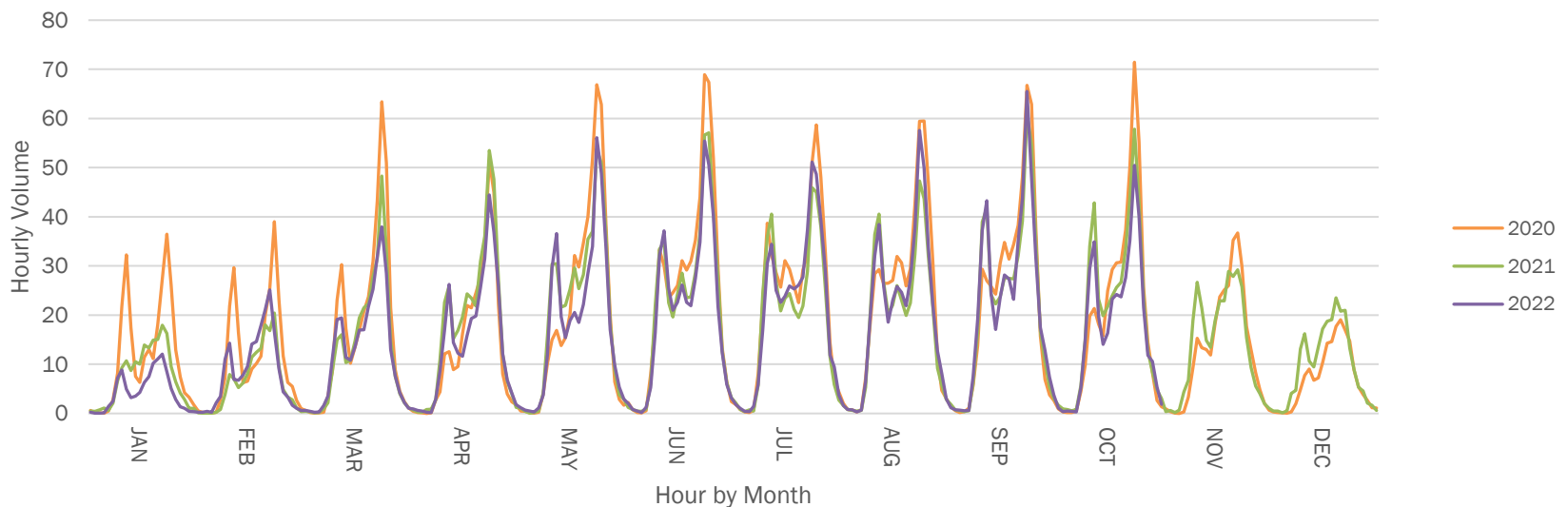
Weekday Hourly volume comparison for commuter trails by month of year: Pre-2020 vs 2020



- The travel pattern change after April 2020 reflects fewer people using these trails to commute (lower peak volumes) and more people using these trails for non-commuting activities during COVID (higher mid-day).

# Commuter Trail Group Hourly Volume by Month: 2020 vs Post-2020, Weekday

Weekday Hourly volume comparison for commuter trails by month of year: 2020 vs Post-2020

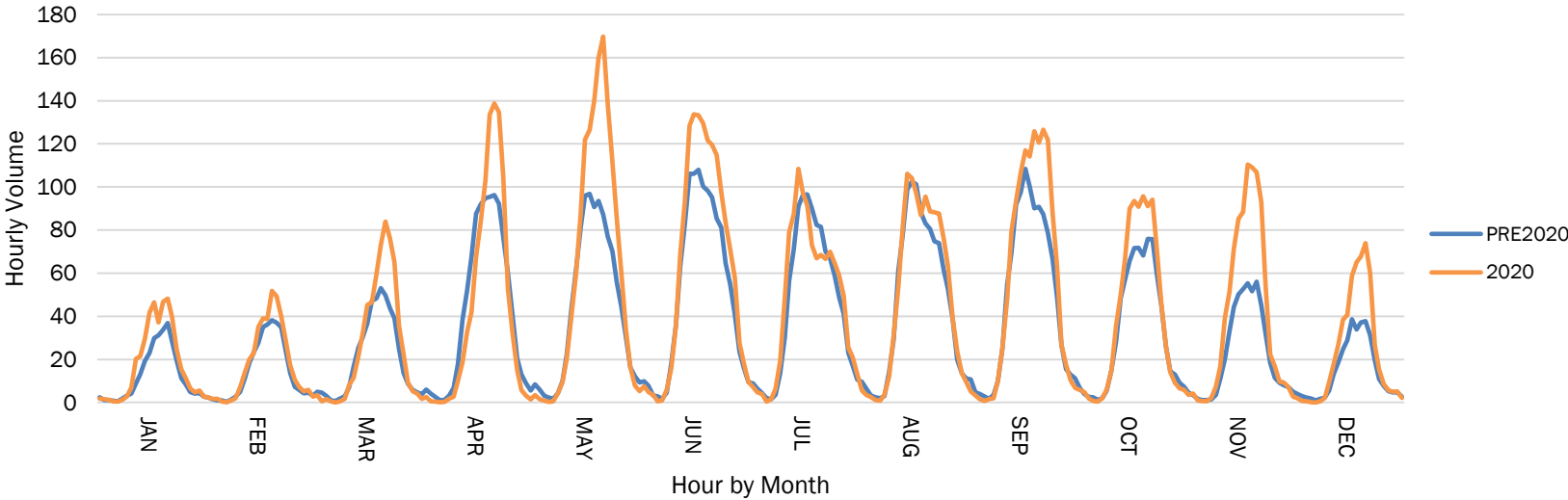


- Pre-COVID pattern before April 2020
- In 2020 fewer people used these trails to commute and more people used these trails for non-commuting activities.
- In 2021/2022 more people used these trails in AM peak hours compared to 2020 and the travel pattern in 2021 and 2022 are similar.



# Commuter Trail Group Hourly Volume by Month Pre-2020 vs 2020, Weekends

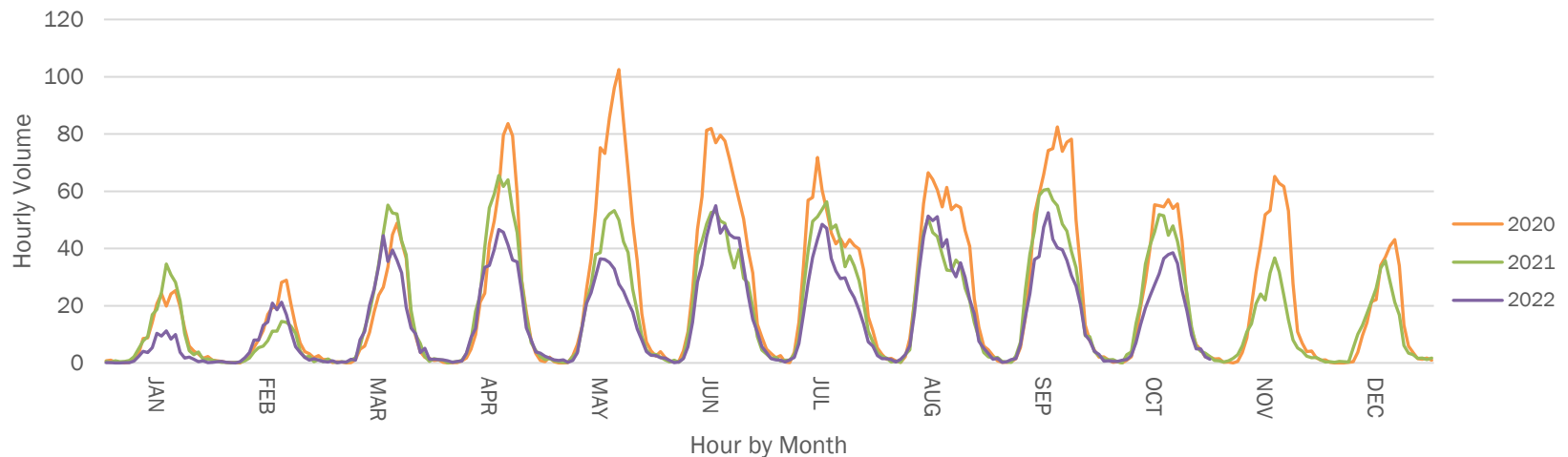
Weekend Hourly volume comparison for commuter trails by month of year: Pre-2020 vs 2020



- While this data represents the commuter trail group, recreational trips are typically dominant on weekends. A large increase in use occurred in 2020 for most hours, especially from April.

# Commuter Trail Group Hourly Volume by Month 2020 vs Post-2020, Weekend

Weekend Hourly volume comparison for commuter trails by month of year: 2020 vs Post-2020



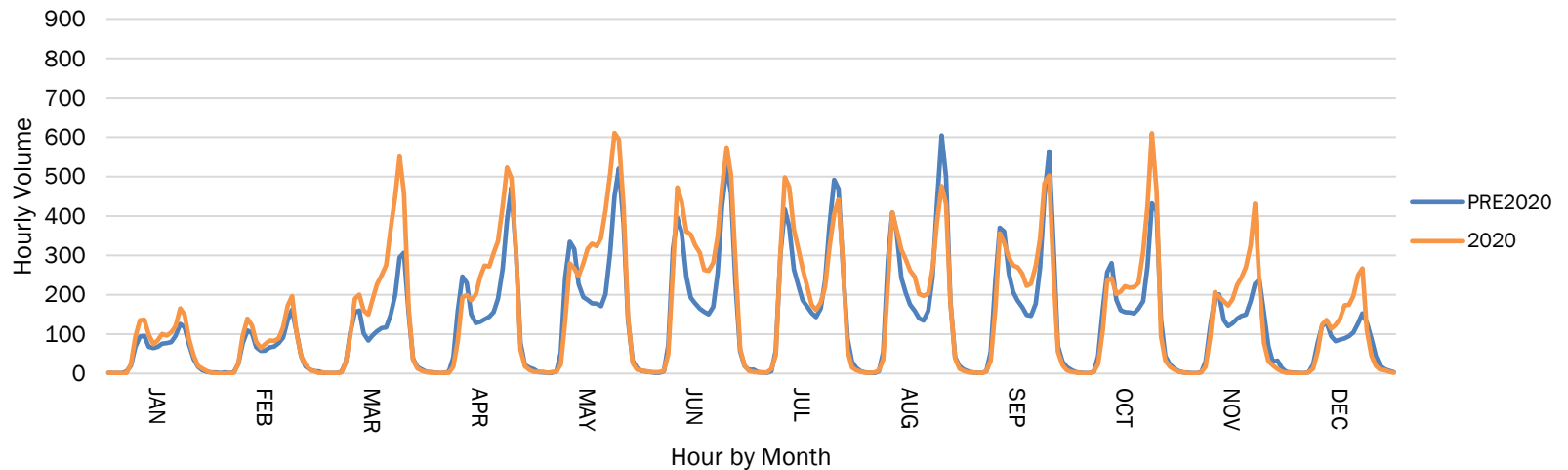
- While this data represents the commuter trail group, recreational trips are typically dominant on weekends. A large increase in use occurred from 2020 April, however, after the first year of the pandemic use returned to pre-pandemic levels in 2021 and 2022 for all the hours.





# Recreational Trail Group Hourly Volume by Month Pre-2020 vs 2020, Weekdays

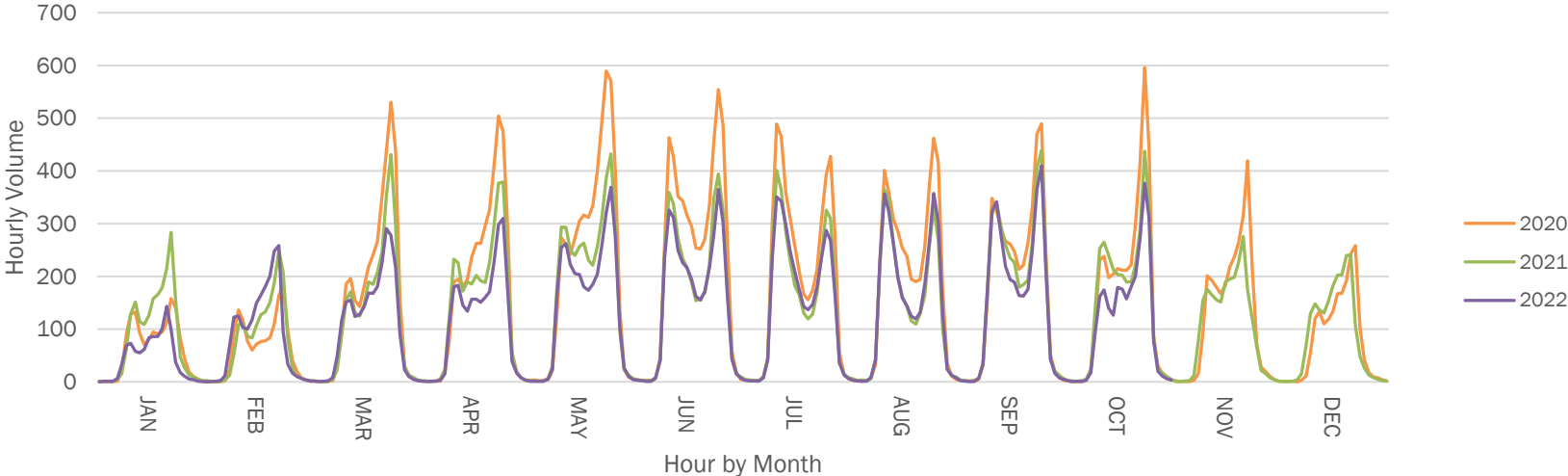
Weekday Hourly volume comparison for Recreational trails by month of year: Pre-2020 vs 2020



- There was an increase in recreational trail usage in 2020 from March during weekdays for most hours.

# Recreational Trail Group Hourly Volume by Month 2020 vs Post-2020, Weekdays

Weekday Hourly volume comparison for Recreational trails by month of year: 2020 vs Post-2020

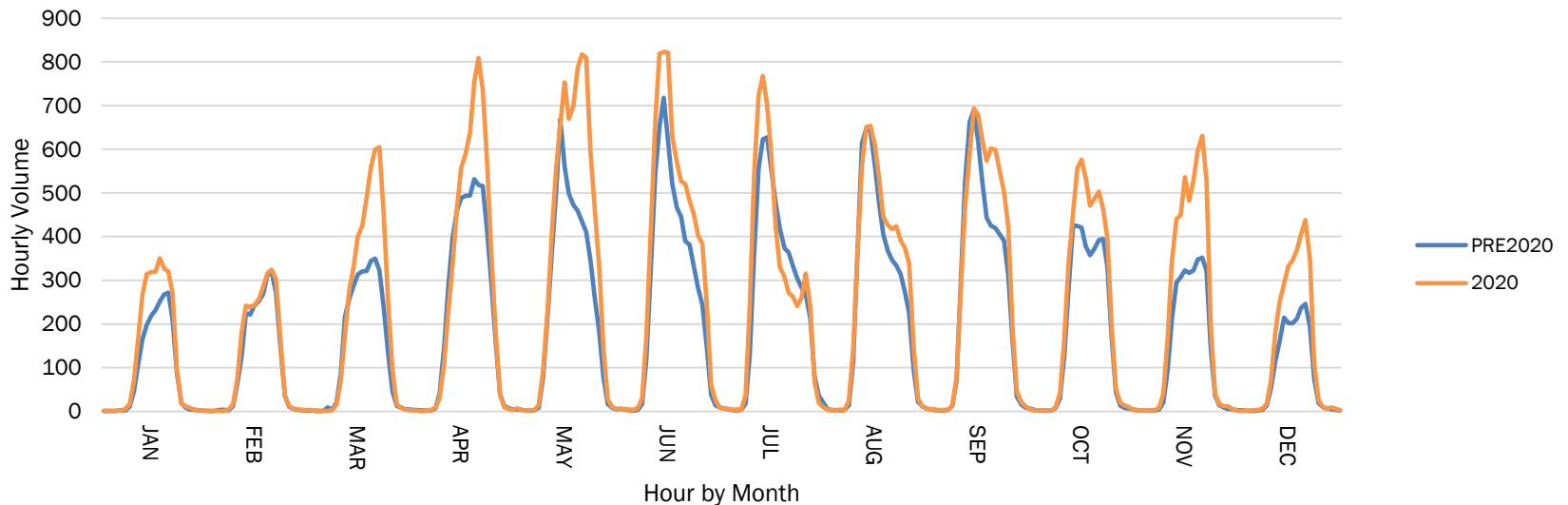


- While there was an increase in recreational trail usage from 2020 March, after the first year of the pandemic, recreational trail usage returned to pre-pandemic levels in 2021 and 2022 for all time of day.



# Recreational Trail Group Hourly Volume by Month Pre-2020 vs 2020, Weekends

Weekend Hourly volume comparison for recreational trails by month of year: Pre-2020 vs 2020

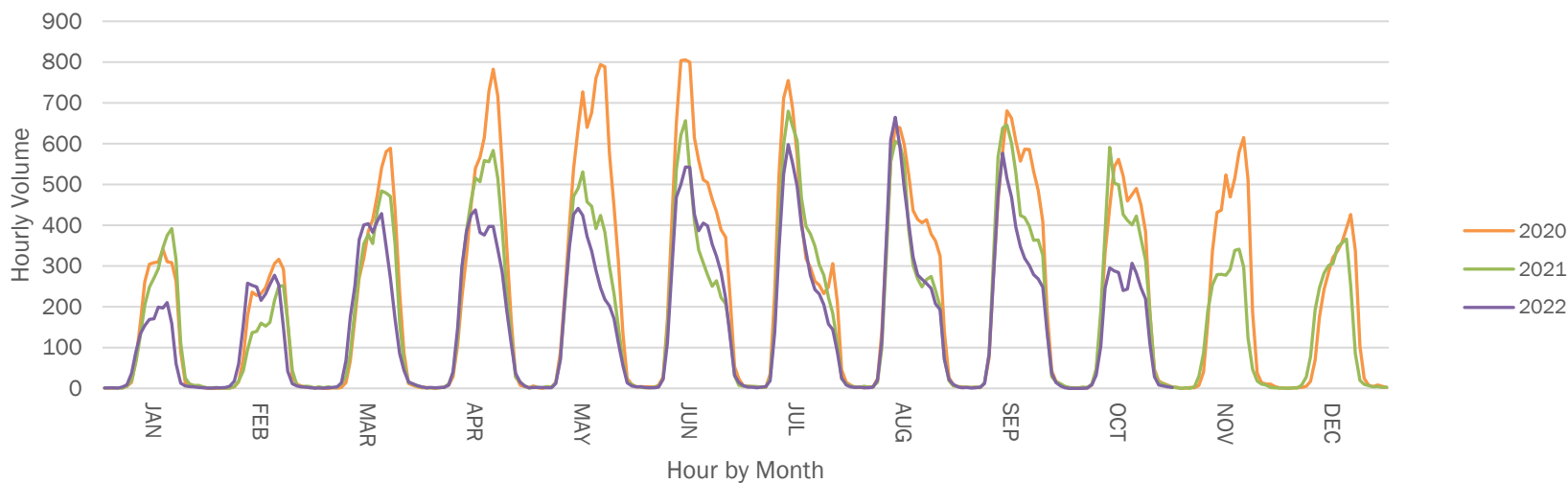


- There was an increase in recreational trail usage in 2020 for most hours, especially after March.



# Recreational Trail Group Hourly Volume by Month 2020 vs Post-2020, Weekends

Weekend Hourly volume comparison for recreational trails by month of year: 2020 vs Post-2020



- There is an increase in recreational trail usage, especially for the initial year (2020 after March) for almost all hours. The usage gradually returned to pre-pandemic levels in 2021 and 2022.



# Regional Connections

What are the travel patterns for other trails in the region?

State	Location	Trail Type	Volume Trend	Similarity to Arlington
DC	Maine Ave Cycle Track	Commuter	2020 and 2021 weekday/weekend volume are similar and much lower than pre-2020, however, 2022 volume bounced back to pre-2020 level.	Partially for commuter trail group for weekdays, especially before 2022.
DC	14th St NW	Commuter	Post-2020 weekday/weekend volume are similar to 2020 level and are lower than pre-2020.	Yes, for commuter trail group for weekdays.
MD	C&O Canal Trail	Recreational	2020 volume is higher than both pre-2020 and post-2020, and the post-2020 volume returned to pre-2020 levels for both weekday and weekend.	Yes, for recreational trail group for both weekdays and weekends.
MD	Rock Creek Trail	Recreational	2020 volume is higher than both pre-2020 and post-2020, and the post-2020 volume returned to pre-2020 levels for both weekday and weekend.	Yes, for recreational trail group for both weekdays and weekends.
MD	Capital Crescent Trail	Hybrid	2020 volume is higher than both pre-2020 and post-2020, and the post-2020 volume returned to pre-2020 levels for both weekday and weekend.	Yes, for recreational trail group for both weekdays and weekends.
VA	Potomac Yard Trail	Hybrid	2020 and post-2020 weekday volume is much higher than pre-2020, and the 2020 weekend volume is higher than both pre-2020 and post-2020.	Yes, for recreational trail group, especially for weekends.



# Takeaways

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- Lasting or Short-lived: the impact of the pandemic on the use of trails?
  - Trails serving primarily a commuting purpose
    - Weekday use declined in 2020 and remains lower.
    - Weekend use initially increased in 2020 before returning to pre-pandemic levels.
    - Weekday hourly volume is more evenly distributed since 2020.
    - Weekend hourly volume in 2020 is higher than pre-2020 and post-2020 for most hours.
  - Trails serving primarily a recreational purpose
    - Weekday and weekend use both increased in 2020 before returning to pre-pandemic levels.
    - Weekday hourly volumes of post-2020 are more evenly distributed than pre-2020 and 2020.
    - Weekend hourly volume of 2020 is higher than pre-2020 and post-2020 for most hours.
- Importance of counting equipment maintenance.



# Acknowledgements

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