



Government of **Western Australia**
Department of **Transport**

2021-22 **Making tracks**

Monitoring WA's bicycle network





Introducing the Bike Counter Network

The Department of Transport (DoT) regularly monitors activity on Western Australia's bicycle network using quantitative and qualitative data sources that provide valuable insights into bike riding activity across the State.

WA's bicycle network is quantitatively monitored using permanent bicycle counters with piezoelectric strip technology. A total of 68 permanent bicycle counters are located primarily on off-road shared paths in the Perth metropolitan area. Of these nine counters are installed in strategic regional locations including sites in Bunbury, Busselton, Geraldton, and Karratha. Additional qualitative data is also collected via general population surveys, which provide data on participation rates, demographic profiles, and trip purposes.

DoT produces annual reports of the bike counter network, including survey insights where available. Throughout the year, DoT regularly monitors network insights to inform decision making.

DoT have regularly reported on the CBD cordon of bike counters, which was set up to detect changes in bike riding in and out of the CBD. More recently, DoT have adopted additional bike counter groupings based on locations and usage profiles and is interpreting this data to inform decision making. These groups of sites are summarised as:

Site Groupings



CBD - Cordon



Picturesque
(near the river, ocean
or parkland)



Suburban Perth



Regional WA - North



Regional WA - South



Perth's five main
PSP corridors

The bike counters provide an accurate picture of bike riding volumes at the counter sites, there are however riding routes which are not captured. The analysis within this report is based on current counter sites and does not reflect all riding movements across WA.



Total number of counters

68

New counters installed in 2021-22

5

Regional counters

9



Why we collect data

Collecting transport data helps us to better understand transport choices and behaviours and, guide infrastructure investment in local communities to support the growth of active transport.

It also helps us to:

- guide sustainable infrastructure investments in local communities across the State;
- undertake evidence based active transport planning;
- establish baseline data before infrastructure interventions; and monitor and evaluate transport projects.

What are we working towards

DoT have five key performance indicators that are used to monitor and track progress. These include:

1. Increased placement of bike counters at strategic locations across the WA long term cycling network in line with the WA Active Transport Network Monitoring Plan.
2. Increased or sustained network level bike counts compared with the previous 12-month period*.
3. Increased bike counts spread evenly across sub-regional areas of the network.
4. Increased or sustained weekly bike riding participation levels compared with the previous 24-month general population sample and measured in relative to population growth*.
5. Increased variety of users on the network, particularly women and people under 35 participating in weekly bike riding.

** Please note: Where fluctuations occur, these should align with known or suspected influential factors such as: PSP upgrades, closures, or detours; increased working from home or recreational use of the network during the pandemic associated lockdowns, etc.*

Key insights: Bike riding count data

INSIGHTS FROM THE 2021-22 FINANCIAL YEAR

Key insights

This report provides valuable insight into bike riding activity in WA. DoT regularly monitors activity on Western Australia's bicycle network using permanent bicycle counters. The data is reviewed and reported every six months.

This report draws upon the bike riding count data collected for the 2021-22 Financial Year.

Setting the scene

Significant growth in bike riding has been seen across Australia since 2019-20 as many people turned to their bikes for exercise and recreation while many parts of the country had social distancing restrictions in place. In Western Australia, this enthusiastic uptake of bike riding was evident through growth at counters located across picturesque sites in Perth.

In 2021-22 bike riding activity has begun to settle and looks to be entering a period of stability. Activity levels have decreased compared to the surges observed over the past two financial years, however remain higher than pre-COVID-19 counts.

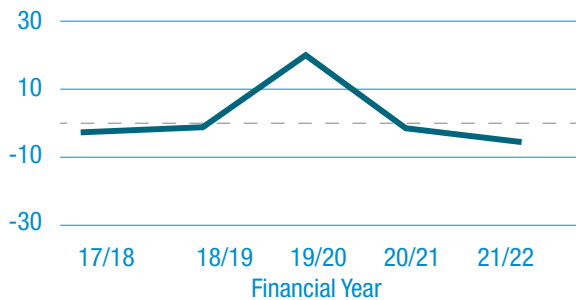
As the global coronavirus pandemic was ongoing during this period, it should be considered when comparing the bike count data and usage patterns to previous time periods. The data observed during 2020-21 and 2021-22 should be put in context of the surge of cycling count volumes in 2019-20, likely due to disruptions to travel choices observed across the network.

Network Average Daily bike riding counts

2021-22	12,480
2020-21	13,466
2019-20	13,748
2018-19	11,490

This is the total daily count from 30 consistent sites across the network. It is derived by summing together the average daily count for each site included. This allows for direct comparisons between years and helps us to measure relative change.

Five-year Financial Year comparison across entire WA Bike Network % Year on Year Change

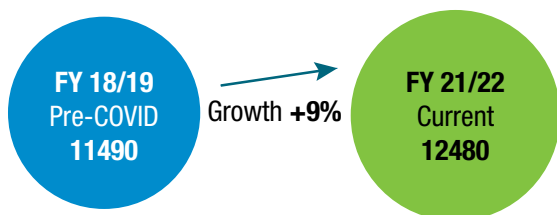


Bike riding activity across the network is entering a period of stability after the advent of the COVID-19 pandemic.

There was unprecedented growth in number of bike trips across the WA bike counter network in 2019-20, with a growth of 19% observed compared to 2018-19.

In 2021-22 bike trips declined by 7%, which is not surprising given the high volumes experienced in the preceding periods. This downward trend indicates activity levels may be starting to stabilise.

Network Average Daily Counts

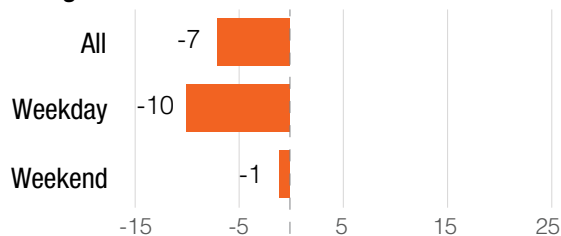


Bike counts from 2018-19 provide a pre-COVID benchmark. When comparing bike counts of 2018-19 and 2021-22 there has been a 9% growth in bike riding activity.

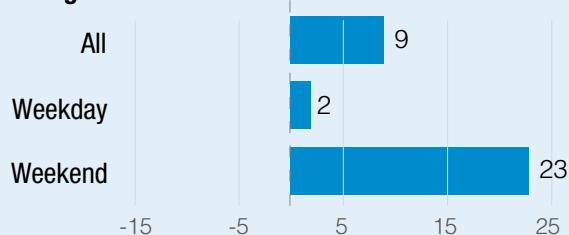
This indicates some of the growth recorded during the COVID-19 pandemic is being sustained.

2021-22 Financial Year comparison across entire WA Bike Network % Year on Year Change for all days, weekdays and weekends

Change from FY 2020-21



Change from FY 2018-19



There is a growing number of bike riding trips recorded over weekend periods.

In 2021-22 larger declines in activity are observed on weekdays than on weekend days. When comparing this to pre-pandemic activity in 2018-19, weekday activity has increased by 2%, and weekend activity has increased by 23%. This trend of growing bike riding trips over weekend periods and declining counts on weekdays may reflect changes in travel patterns, with more people working from home and an increase in local trips.



Looking more closely at the 2021-22 change across the networks' sub-groups:

Bike riding across picturesque and suburban locations particularly on weekends is growing



Picturesque
(near the river,
ocean or parkland)

There was a growth in bike riding activity on weekends across picturesque sites in the previous period and similar levels have been maintained in 2021-22.



Suburban Perth

Suburban sites observed an increase in bike riding activity on weekends, with an increase of 3% compared to 2020-21. Overall activity for the suburban sub-group is 8% higher than in 2018-19.

The increased activity across suburban Perth and picturesque sites may suggest Western Australians are using their bikes more for travel closer to their community for outdoor exercise or recreation.

The Fremantle Railway Principal Shared Path (PSP) counter at Victoria Street (included within the suburban Perth sub-group), experienced the greatest percentage increase in 2021-22 (up 23%). This is likely related to the completion of the Victoria Street to North Fremantle Station PSP extension, which opened in September 2021 providing a further 2.1km of continuous, off-road path for people walking and riding.

Strong growth in bike riding is observed in Regional WA – North



Regional WA -
North

The Regional WA – North sub-group reported an increase in average daily bike counts of 4%. This sub-group saw most of its growth on weekends, with a 7% increase in activity compared to a 3% increase in weekday activity. Regional WA – North has experienced large growth in bike riding activity when compared to 2018-19 with an increase of 22%.

Bike riding activity continues to decline around the Perth CBD



CBD - Cordon

In previous financial years there has clearly been lower bike riding activity in the CBD cordon, which is likely an indication of pandemic related disruptions to business and work-location flexibility. This trend continued in 2021-22 with a decline of 10% in bike riding activity observed. CBD activity levels have also dropped 2% below those recorded in 2018-19 prior to the COVID-19 pandemic.

Notes on terminology and methodology

- The bike counter network has been installed progressively and with occasional periods of counter downtime due to technical faults or path construction works. Of all the installed counters currently in use, 59 were operational for at least eleven complete months during 2021-22. Of these 49 piezoelectric counters were comparable across 2020-21 and 2021-22, and 30 were comparable across 2018-19 to 2021-22.
- Please note, in some instances rounding has been included in the report.

Further information

- Detailed charts of the key measures provided in this report can be found in the appendix
- More information on can be found on the DoT website, including the [2020-21 report](#) www.transport.wa.gov.au

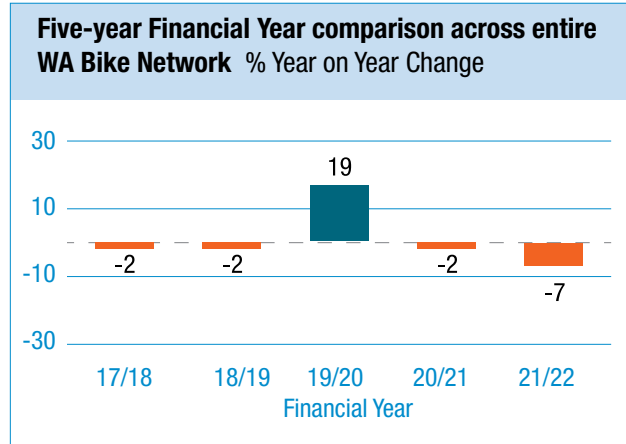


Appendix

Five-year Calendar Year comparisons

Chart 1:

Comparison across the
WA Bike Network



Last 12-month bike counts

Chart 2:

Comparison across
Sub-locations

