Glenmore Street Bike Data Analysis

March 2025

Absolutely Positively
Wellington City Council
Me Heke Ki Pōneke

Version	Date	Author	Approver
1	20/03/2025	Transport Strategy Advisor	Manager City Insights

Contents

Scope of analysis

Purpose

This report provides analyses to understand cycling activity around the Glenmore Street cycleway. The report:

- Explores the route area including roadworks undertaken from one year before the cycleway installation
- Identifies the available cycling data sources
- Conducts data comparison and validation assessment when possible
- Analyses monthly, weekly, daily and hourly bike data and provides insights to understand cycling activity and patterns.

Location

This report provides summary data and insights for part of the Karori connections project. It focuses on the Glenmore Street cycleway which was installed 17 – 30 June 2024. The base data is being made available through the Council's Cycle Counts webpage or Open Data Portal.

Figure 1. Cycleway on Glenmore Street (green highlighted)

Timeframe

Data was analysed from June 2023, one year before construction began, through to the end of February 2025. The analysis took place in March 2025.

Road works along the route

Between June 2023 and February 2025, 33 road works occurred on Glenmore Street which could have influenced activity levels on the street. The table below shows all the recorded road works in the Council's SUBMITICA system. These works are likely to have acted as environmental factors contributing to the variability observed in daily movement volumes.

Table 1. Road works on Glenmore Street from June 2023 to February 2025

Estimated start date	Estimated completion date	Work type	Work description
6/06/2023	19/06/2023	Minor	Shoulder and roadside activities: Work in footpath for decommission. Site to be isolated from pedestrians and footpath to remain open. Bus route not affected.
6/07/2023	18/07/2023	Not Applicable	Access requires to pole K61 located in the footpath outside 106 Glenmore Street to span aerial fibre cable into customer premise and complete jointing/splicing works.
16/08/2023	29/09/2023	Minor	Replace power pole.
15/11/2023	11/12/2023	Emergency	Repaired leaking service.
17/11/2023	8/12/2023	Minor	Excavate, identify and repair water leak at service.
15/12/2023	10/01/2024	Emergency	Repaired leaking services.
8/01/2024	9/02/2024	Minor	Replace and install with retro lid. Pedestrians will be diverted onto other side of street.
18/02/2024	8/03/2024	Minor	Renew water services from the main to the toby.
22/02/2024	19/03/2024	Emergency	Repaired leaking service up walkway.
8/03/2024	26/03/2024	Minor	Kerb and Channel replacement.
8/04/2024	19/04/2024	Minor	Repair service leaks, toby repairs, toby replacement, valve and hydrant repairs etc.
15/04/2024	15/04/2024	Emergency	Repair service leaks, toby repairs, toby replacement, valve and hydrant repairs etc.
15/04/2024	15/04/2024	Emergency	Repair service leaks, toby repairs, toby replacement, valve and hydrant repairs etc.
27/05/2024	26/07/2024	Project	Karori Cycleway - Glenmore St removing old curbing constructing new curbing and pedestrian crossings, installing cycleway separators, a new middle island, new roundabout, new parking area, and widening the road.

Estimated start date	Estimated completion date	Work type	Work description
9/06/2024	14/06/2024	Minor	Karori Cycleway.
17/06/2024	27/09/2024	Major	Karori Cycleway - road marking, constructing a middle island and installing cycleway separators.
1/07/2024	1/08/2024	Major	Streetlight Pole replacement on resident driveway.
22/07/2024	22/08/2024	Minor	Repair service leaks, toby repairs, toby replacement, valve and hydrant repairs etc.
13/08/2024	8/09/2024	Emergency	Replaced leaking toby.
25/08/2024	26/09/2024	Major	Dig outs on western approach of Kelburn Viaduct.
4/09/2024	30/09/2024	Emergency	Repaired water leak.
9/09/2024	20/09/2024	Minor	Repair service leaks, toby repairs, toby replacement, valve and hydrant repairs etc.
6/01/2025	31/01/2025	Minor	Wellington Water on-site to excavate repair or replace leaking assets on berm outside 162 Glenmore Street, Northland.
7/01/2025	31/01/2025	Minor	Repair / replace toby leak in berm/ footpath outside 92 Glenmore Street.
10/01/2025	5/02/2025	Emergency	Repaired leaking toby.
12/01/2025	13/01/2025	-	Chaytor Street - road resurfacing from Appleton Park to Karori tunnel west.
13/01/2025	14/01/2025	-	Karori tunnel - road resurfacing from Karori tunnel east to west.
13/01/2025	28/02/2025	Major	Replacement of steps on accessway.
13/01/2025	28/02/2025	Major	Install new cycle loop on Glenmore Street.
14/01/2025	15/01/2025	-	Glenmore Street - road resurfacing from Karori tunnel west to 182 Glenmore Street.
24/01/2025	24/01/2025	Emergency	Repaired water leak.
10/02/2025	10/03/2025	Major	Installing new electrical pillars.
11/02/2025		Minor	New Connex site.

Bike count data

There were four BeCounted sensors along this route, each with varying data availability and reliability. In addition, two VivaCity sensors have been installed along the route. There is also a short duration manual count taken in Bowen Street in early March 2025. The table below shows the locations of counting sensors and their data availability.

Table 2. Bike count sensor locations and data availability

BeCounted sensor		VivaCity sensors		Manual cordon count	
Location	Data availability	Location	Data availability	Location	Data availability
Bowen Street near Glenmore Street uphill and downhill	From September 2022 to February 2025	Bowen Street near Glenmore Street Sensor 63 captures uphill and downhill data	From April 2024	36 Bowen Street	7-9am,11 to 15 March 2019 7-9am, 3 to 12 March 2025
Glenmore Street near Garden Road uphill and downhill	From June 2023 to February 2025				
Karori Tunnel east side city bound	From December 2017 to January 2025	Karori Tunnel west side Sensor 18 captures city bound and Karori bound data	From December 2023		
Karori Tunnel west side Karori bound	From December 2017 to January 2025				

The figure overleaf shows the counting locations, of BeCounted, VivaCity and the manual count, and their data availability.

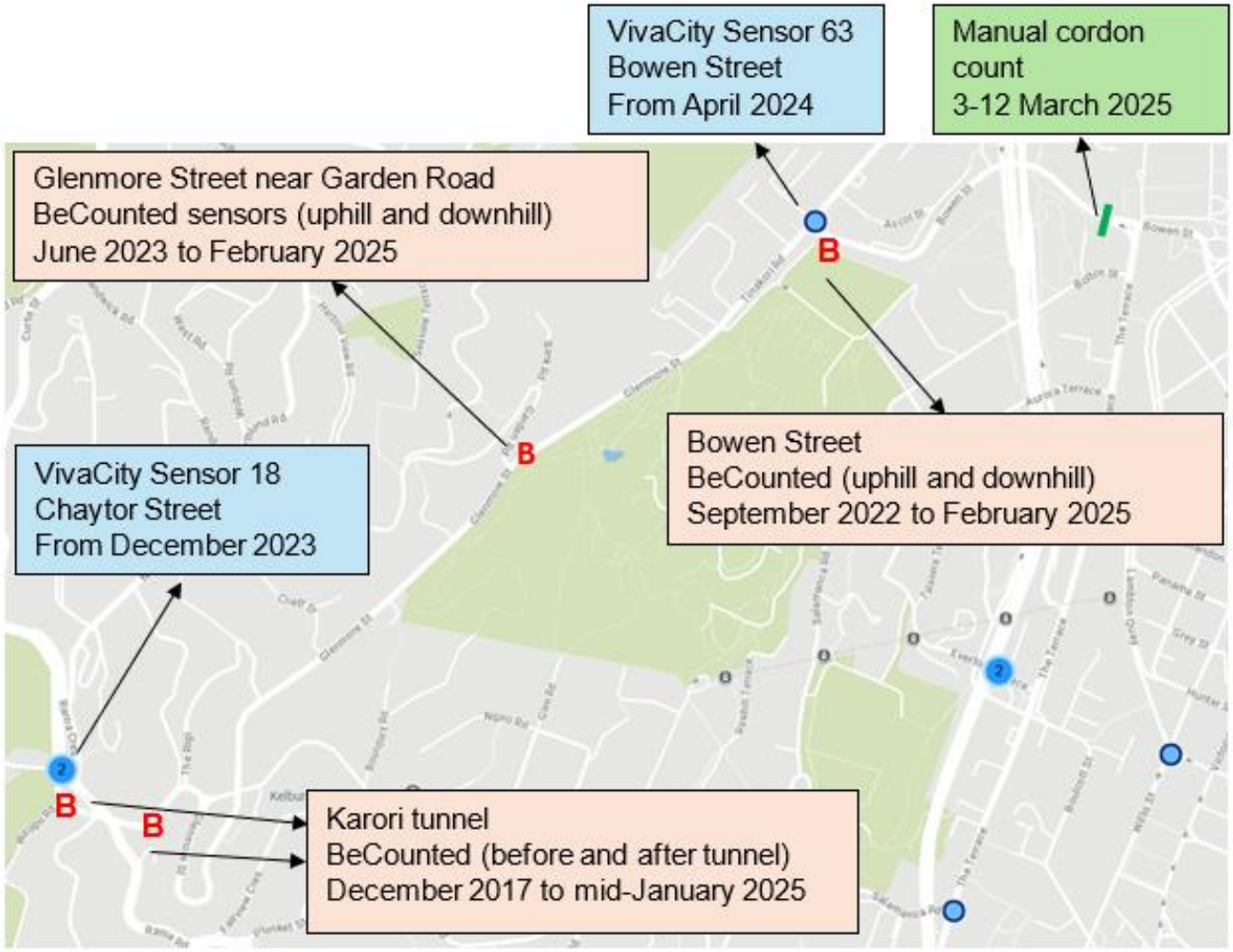

Figure 2. Bike count locations and data availability

Bike count data analysis

Methodology

BeCounted and VivaCity data was used to develop bike counts for monthly, daily and hourly totals. Monthly totals were analysed from one year before the construction of the Glenmore Street cycleway to provide insights into changes over time. The VivaCity data was used once it became available. The VivaCity data is considered potentially more reliable and accurate due to the more advanced technology and lesser vulnerability to physical changes in the road corridor. While we have compared datasets to observe correlations and coincidences, this should not be interpreted as data validation. Validation can only be assured by comparing count data to manual observations. The only validation assessment was conducted for Bowen Street where a recent manual count was undertaken from 3 to 12 March 2025.

The analysis uses monthly graphs that show the transition from legacy BeCounted sensors to the new VivaCity sensors. Weekdays and weekend peak patterns were analysed using February 2025 data to identify differences in cycling activity across different days of the week and hours of the day.

Validation methodologies

BeCounted data was initially validated with a small sample of manual count data when the sensors were commissioned. However, there is no systematic process to provide assurance that accuracy over time has been maintained.

VivaCity data is validated with small manual samples compared to captured video to ensure the sensor is recording within the acceptable range of at least 97 percent accuracy. Like BeCounted, there is no systematic process to provide assurance that accuracy over time has been maintained.

Monthly, daily, and hourly patterns were examined to detect any unusual data trends. When appropriate, data from two sensors, BeCounted and VivaCity, were compared during overlapping periods to confirm consistency between the sources and identify potentially unreliable data. However, these checks are not a full validation of the counters (BeCounted and VivaCity) data as this would require comparison to a manual count sample.

A recent manual count was available for Bowen Street, so this has been compared to VivaCity data for the same time periods. Findings are included in the relevant directional data sections of this report.

Glenmore Street near Botanic Garden results

BeCounted sensors located on Glenmore Street near Garden Road are the closest to the Botanic Garden area of interest. Cycling activity on Glenmore Street was monitored by BeCounted sensors. There is no VivaCity sensor in this location.

Figure 3 (below) shows bike count data in both directions on Glenmore Street.

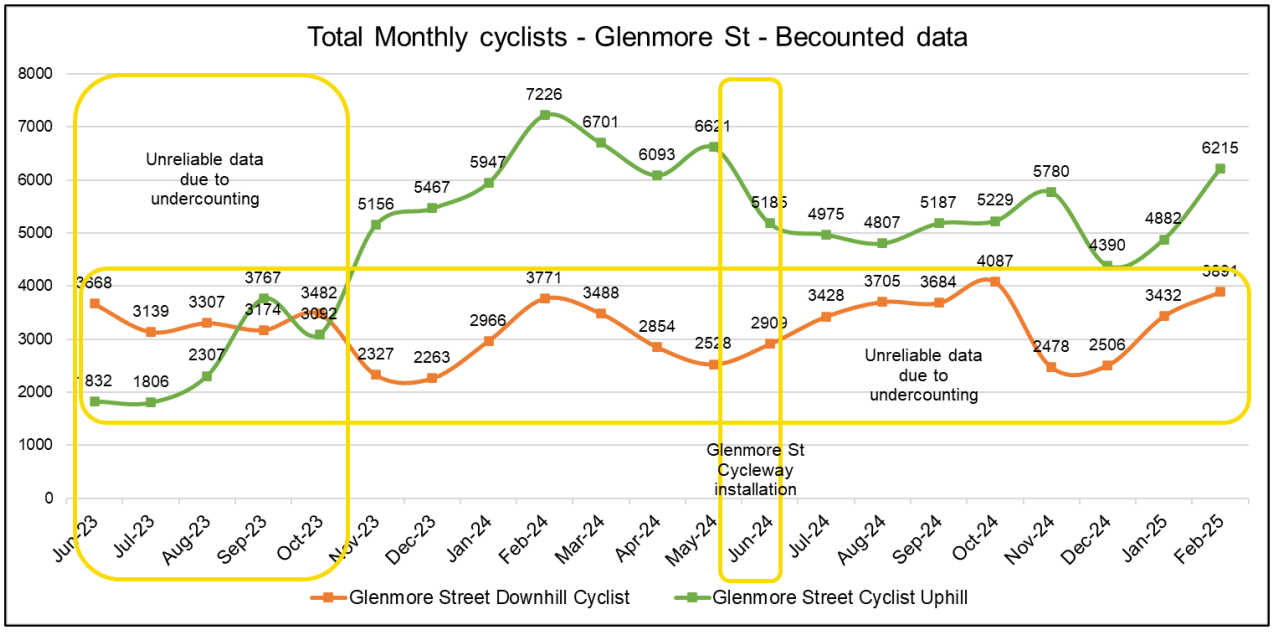

Figure 3. Total monthly number of cyclists on Glenmore Street (BeCounted data)

Karori-bound bike data before November 2023 is not reliable as an indicator of total cycle volumes on the route in that direction because a car park change influenced the path for cyclists, and many missed the counting loop. A new loop was installed to address this issue. This accounts for some of the rise in volumes seen between November and December 2023.

City-bound bike data shows significantly lower numbers which indicates likely undercounting. This issue is likely due to variable riding position on the road for example, when riders 'take the lane', meaning many riders miss the counting loop. Therefore, we do not regard these numbers as reliable as an indicator of total volumes on the route in that direction. Subsequently, a validation count was undertaken in early March 2025 as shown in the table overleaf which indicates data counts on both city-bound and Karori-bound are **not** reliable.

Table 3. Validation count of bike data in Glenmore Street in March 2025

Date	Time	Uphill cyclist (cycleway)		Downhill cyclist (shared lane)	
		Manual Count	BeCounted sensor	Manual Count	BeCounted sensor
6th March 2025	3-4pm	18	14	2	10
	4-5pm	79	68	4	6
13 March 2025	5-6pm	112	84	2	7
	7:00 - 8:00am	3	2	57	26
	8:00 - 9:00am	4	3	131	54

Due to all the findings mentioned in this section, data from these BeCounted sensors is not considered reliable enough to produce insights to inform decisions. It is recommended that these counters to be decommissioned as soon as possible.

Bowen Street cordon bike data comparison

Monitoring the number of cycling trips towards and away from the central city helps to show whether progress is being made towards the Council's strategic priority of "transforming our transport system to move more people with fewer vehicles". The number of people biking towards and away from Wellington's central city was monitored using the central city cordon survey. Annual surveys were conducted during the morning peak hours (7-9am) on five consecutive weekdays in March from 1999. The latest reliable cordon counts data was in 2019 because in 2020, the survey was partially abandoned or incomplete due to COVID-19 and in 2021, COVID-19 lockdowns influenced traffic volumes. The survey was fully abandoned in 2022 and was completed with a reduced scope in May 2023.

A manual count was conducted in early March 2025 between 7am and 9am. The results are shown in the table and graph below.

Table 4. Morning peak (7-9am) manual bike count data on Bowen Street comparing 2019 and 2025.

Monday to Friday manual counts on Bowen Street (near 36 Bowen Street)	2019		2025	
	Inbound	Outbound	Inbound	Outbound
2-hour total, 5-day average	107	22	170 (+60%)	68 (+209%)
Average cycling per hour	53	11	85 (+60%)	34 (+209%)
Maximum cycling hour	84	24	120 (+43%)	56 (+133%)

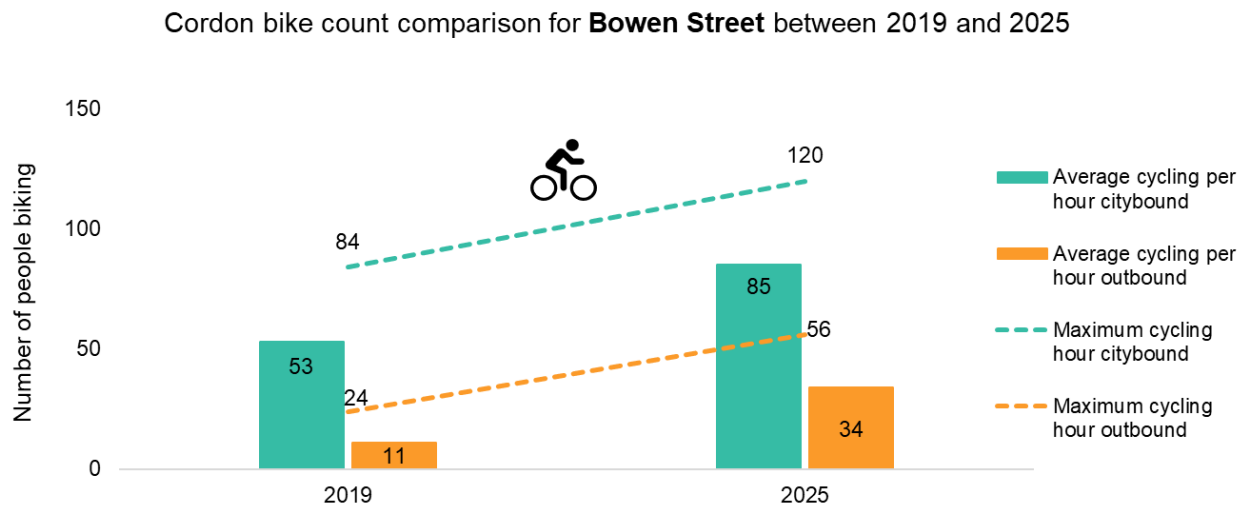

Figure 4. Cordon bike counts on Bowen Street comparing 2019 and 2025

Results from Table 4 and Figure 4 show growth across all metrics:

- Average cycling trips per hour toward the central city increased by 60%
- Average cycling trips per hour away from the central city almost tripled (209%).
- Maximum cycling trips per hour towards the central city increased by 43%.
- Maximum cycling trips per hour away from the central city increased by 133%.

Bowen Street Bike Data

Bowen Street near Glenmore Street is the next closest count location near the Botanic Garden area of interest. Cycling activity on Bowen Street was being monitored using BeCounted sensors from September 2022. A new VivaCity sensor (Sensor 63) was installed on Bowen Street in April 2024. The new count lines are aligned with the BeCounted sensors. The figures below show screenshots from the VivaCity sensor and count lines on Bowen Street.

Figure 5. VivaCity sensor views in Bowen Street covering citybound (upper image) and Karori bound (lower image)

The sensor position provides an unobstructed view of citybound movements (upper image) so is considered to be accurate and reliable. The outbound bike lane count lines (lower images) are further from the sensor and at busy times the view of the bike lane can be obstructed by heavy vehicle flows and larger vehicles. This is likely to reduce count reliability during those times and lead to under counting.

Monthly counts directional balance

Figure 6 compares city-bound and Karori-bound monthly totals to check for a reasonable balance in cyclist flows. Although observed count data cannot explain why flows may be unbalanced, outbound data is potentially less than inbound data as some cyclists may turn right to Tinakori Road and this volume is excluded from the total shown. There is a strong correlation in the data over most months since July 2024 with the exception of November 2024 and to a lesser extent in February 2025.

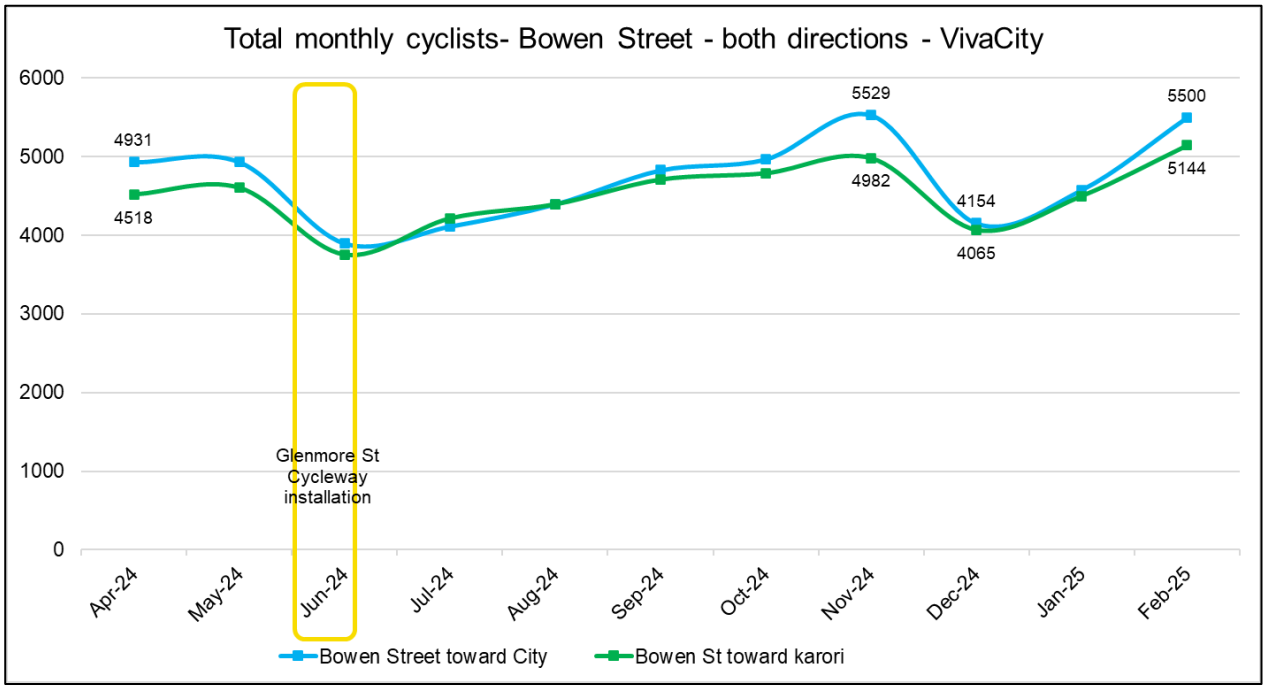

Figure 6. Total monthly number of cyclists on Bowen Street (VivaCity data)

Monthly totals Karori-bound

Figure 7 shows the monthly total counts of Karori-bound cyclists recorded by the BeCounted and VivaCity sensors from June 2023. The BeCounted data shows typical monthly variability which results from variations in the number of working days, school holidays and weather. The VivaCity data starts in April 2024. BeCounted data records higher numbers than VivaCity data for this location. The variance ranges from 338 to 857 cyclists per month, which indicates 84% to 93% of similarity between the two data sources.

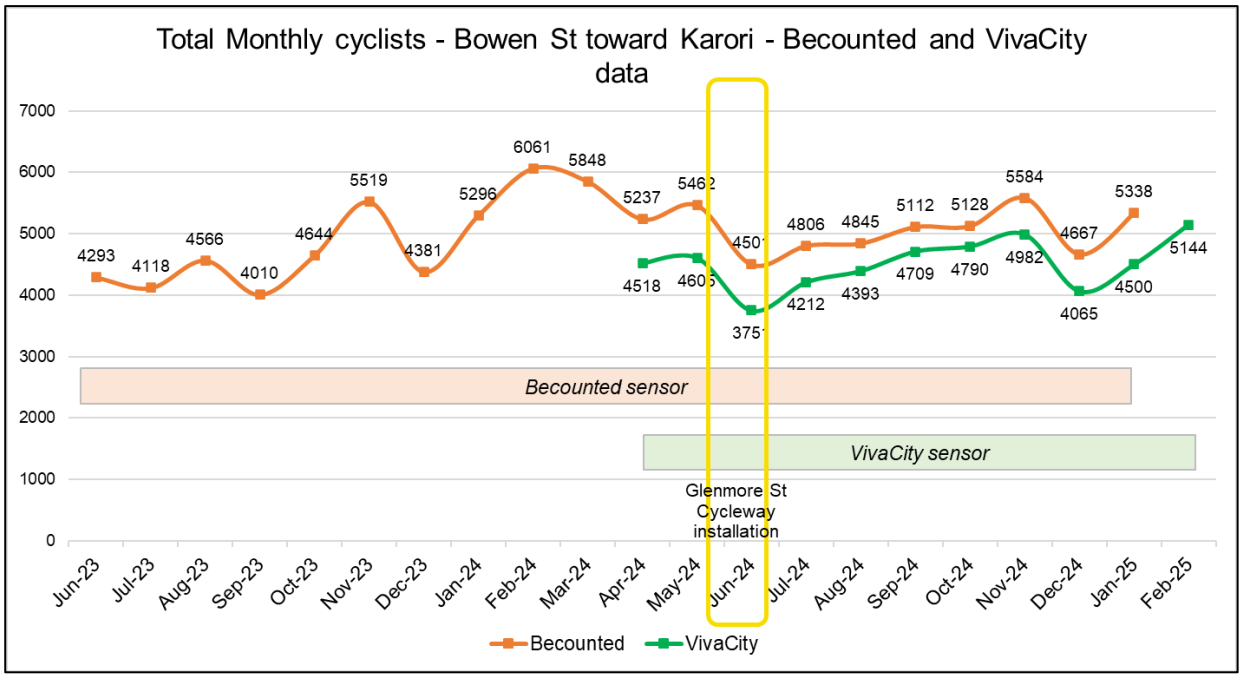

Figure 7. Monthly bike counts in Bowen Street towards Karori

Data validation for Bowen Street Karori-bound

Bowen Street manual count data recorded in early March 2025 (7-9am) was used to validate VivaCity sensor data for cycling activity on Bowen Street towards Karori. The manual cordon count site is opposite 36 Bowen Street and bike counts might be slightly different if people turned into or out of parking areas along the route and did not pass the VivaCity count line in upper Bowen Street. While the compared samples were taken at adjacent locations, they were not in the same place which may contribute to an apparent error.

Results are tabulated overleaf.

Table 5. Manual count of bike trips on Bowen Street towards Karori early March, 7-9am

	Time of the day (15-minute intervals)								Total
Day	7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00	8:00-8:15	8:15-8:30	8:30-8:45	8:45-9:00	
Monday	4	5	6	9	12	11	7	8	62
Tuesday	5	6	12	11	9	22	14	10	89
Wednesday	1	10	6	10	11	6	14	12	70
Thursday	4	3	5	16	10	15	14	5	72
Friday	0	5	7	6	8	7	7	8	48
Total	14	29	36	52	50	61	56	43	341

Table 6. VivaCity bike data on Bowen Street towards Karori early March, 7-9am

	Time of the day (15-minute intervals)								Total
Day	7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00	8:00-8:15	8:15-8:30	8:30-8:45	8:45-9:00	
Monday	2	0	0	0	1	1	0	0	4
Tuesday	2	0	1	1	0	0	0	0	4
Wednesday	1	1	0	0	0	1	0	2	5
Thursday	1	0	2	2	0	0	0	1	6
Friday	0	1	1	2	1	1	0	1	7
Total	6	2	4	5	2	3	0	4	26

Table 7. Percentage of VivaCity bike data compared to the manual count

	Time of the day (15-minute intervals)								Total
Day	7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00	8:00-8:15	8:15-8:30	8:30-8:45	8:45-9:00	
Monday	50%	0%	0%	0%	8%	9%	0%	0%	6%
Tuesday	40%	0%	8%	9%	0%	0%	0%	0%	4%
Wednesday	100%	10%	0%	0%	0%	17%	0%	17%	7%
Thursday	25%	0%	40%	13%	0%	0%	0%	20%	8%
Friday	100%	20%	14%	33%	13%	14%	0%	13%	15%
Total	43%	7%	11%	10%	4%	5%	0%	9%	8%

The validation results for Bowen Street towards Karori show that the VivaCity sensor is hugely undercounting cycling trips during the comparison period.

Table 7 shows the very low level of accuracy for this specific location for cycling activity. The overall accuracy for Monday to Friday 7-9am was only 8%, far below the expected accuracy of greater than 97 percent. While this is likely happening because vehicles obstruct cyclists from the VivaCity sensor view at this location, this finding demonstrates that urgent work is required to validate all VivaCity data before it can be considered reliable for reporting purposes.

Therefore, the BeCounted data is currently a more reliable source of cycling activity towards Karori at this location.

The level of accuracy appears to be lower at peak times due to higher vehicle activity blocking the view of the bike lane.

System validation, data checking and improving reporting processes is a necessary stage of commissioning the new traffic monitoring technology. This process has yet to commence for the VivaCity project. Solving the undercounting issue at this location will be undertaken as part of the VivaCity commissioning process, which will commence shortly. The recommended action is to eliminate the current unreliable countline and install an additional sensor viewing Glenmore Street.

Monthly totals city bound

Figure 8 shows the monthly total counts of city-bound cyclists recorded by the BeCounted and VivaCity sensors from June 2023. The VivaCity data starts in April 2024. The BeCounted data shows typical monthly variability which results from variations in the number of working days, school holidays and weather. However, from August 2024, BeCounted data appears to be very unreliable due to a considerable decrease in numbers compared to the VivaCity data. This suggests data from this BeCounted sensor is materially under counted and should be considered unreliable due to technical issues in the specific downhill counter.

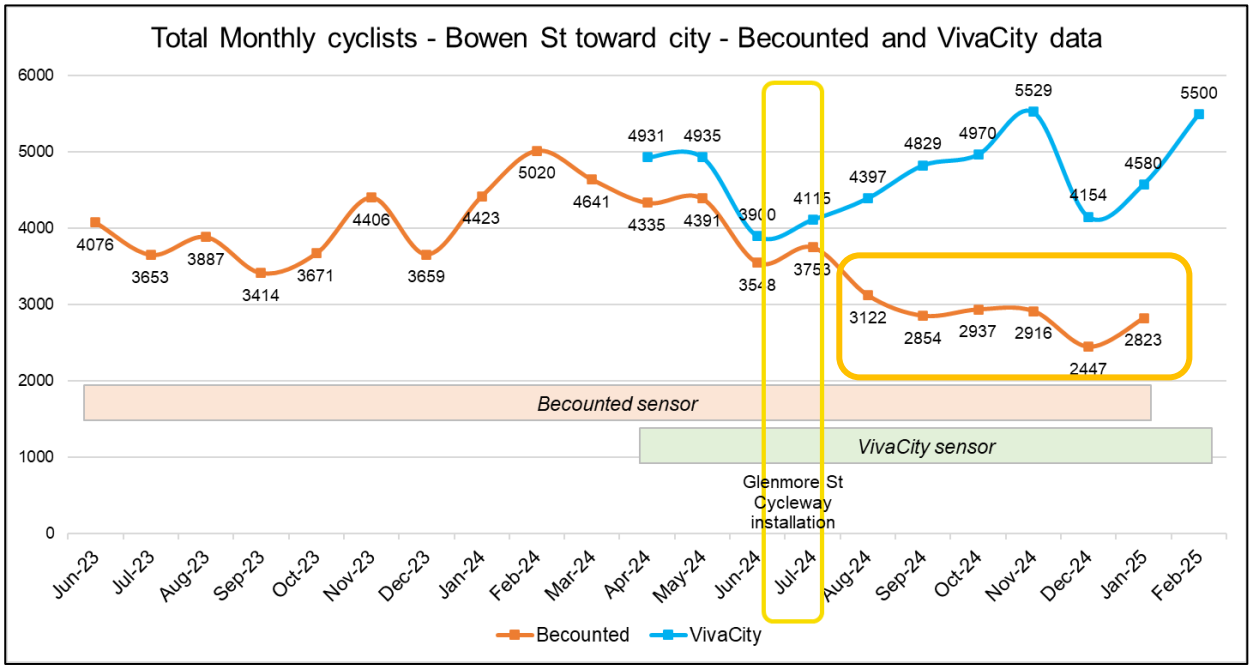

Figure 8 Monthly total bike counts on Bowen Street city bound

Data validation for City bound

To validate VivaCity sensor data for cycling activity on Bowen Street towards the central city, results from a manual cordon count in early March 2025 (7-9am) was compared to VivaCity data at the nearest location. The manual cordon count site is opposite 36 Bowen Street and bike counts might be slightly different if people turned into or out of parking areas along the route and did not pass the VivaCity count line in upper Bowen Street. While the compared samples were taken at adjacent locations, they were not in the same place which may contribute to an apparent error.

Results are tabulated overleaf.

Table 8. Manual counts of bike trips on Bowen Street towards the central city early March, 7-9am

	Time of the day (15-minute intervals)								Total
Day	7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00	8:00-8:15	8:15-8:30	8:30-8:45	8:45-9:00	
Monday	8	17	23	30	18	39	28	33	196
Tuesday	12	22	10	20	25	32	31	32	184
Wednesday	14	7	17	20	25	22	30	31	166
Thursday	8	16	24	22	22	30	29	26	177
Friday	4	9	13	12	26	22	21	21	128
Total	46	71	87	104	116	145	139	143	851

Table 9. VivaCity bike trips on Bowen Street towards the central city early March, 7-9am

	Time of the day (15-minute intervals)								Total
Day	7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00	8:00-8:15	8:15-8:30	8:30-8:45	8:45-9:00	
Monday	10	17	25	32	17	40	28	31	200
Tuesday	9	13	13	25	17	29	23	26	155
Wednesday	7	8	9	16	23	20	9	24	116
Thursday	9	17	28	23	24	24	27	29	181
Friday	6	11	15	17	24	24	25	21	143
Total	41	66	90	113	105	137	112	131	795

Table 10. VivaCity bike data accuracy assessment on Bowen Street towards the central city between early March, 7-9am

	Time of the day (15-minute intervals)								Total
Day	7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00	8:00-8:15	8:15-8:30	8:30-8:45	8:45-9:00	
Monday	125%	100%	109%	107%	94%	103%	100%	94%	102%
Tuesday	75%	59%	130%	125%	68%	91%	74%	81%	84%
Wednesday	50%	114%	53%	80%	92%	91%	30%	77%	70%
Thursday	113%	106%	117%	105%	109%	80%	93%	112%	102%
Friday	150%	122%	115%	142%	92%	109%	119%	100%	112%
Total	89%	93%	103%	109%	91%	94%	81%	92%	93%

Bike data validation results for Bowen Street towards the central city shows that the VivaCity sensor is counting cycling trips with a high accuracy level. As tables above show, the manual counts of cycling activity demonstrate very similar numbers compared to VivaCity data, except for Wednesday 5 March.

Table 7 shows the high level of accuracy for most of the bike counts for 15-minute intervals and two-hour daily counts. The overall accuracy for Monday to Friday 7-9am was 93%.

Therefore, the VivaCity data is the more reliable source for cycling activity towards the central city at this location compared to BeCounted data.

While there is a high level of accuracy in the VivaCity city bound data for most validated times at this location, there is a need to continuously identify and solve counting errors like the undercounting issue noted on Wednesday 5 March. This system improvement will be undertaken as part of the VivaCity data commissioning process.

Weekday and weekend totals out bound

Count data from February 2025 for the uphill bike lane was analysed in detail to demonstrate daily and hourly patterns. Outbound daily total cyclist counts show typical variability with higher activity on weekdays. The highest daily total of 287 was recorded on Monday 17 February.

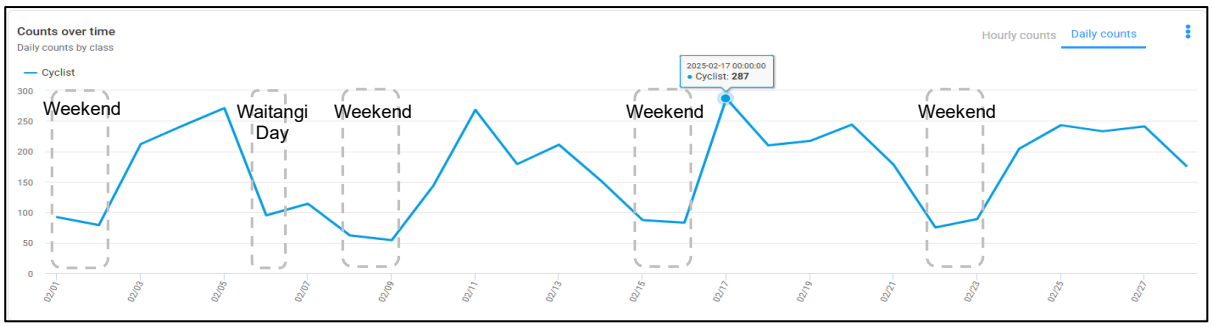

Figure 9. Outbound daily total cyclists count in Bowen Street in February 2025

Working day counts show approximately 200 cyclists per day. Note that Thursday 6 February was a public holiday, and many people also might not have worked on the following Friday. Weekends are quieter still with averages of approximately 80 cyclists per day.

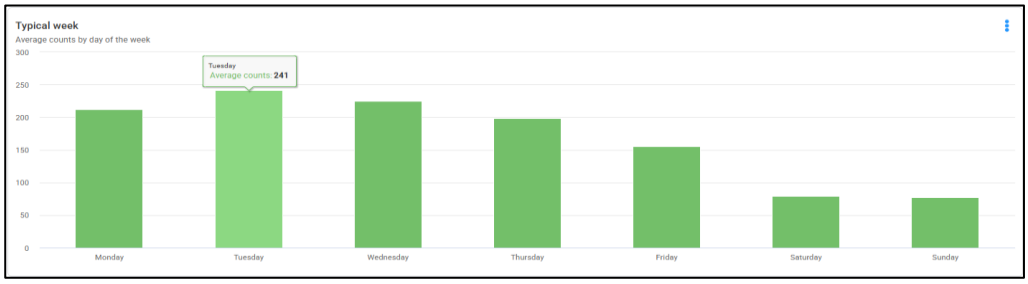

Figure 10. Outbound average cyclist counts by day of the week in Bowen Street in February 2025

The hourly pattern reveals 24/7 usage with less than 20 cyclists in most hours. A clear weekday peak is seen in the 4-5pm hour ranging from 41 to 76 cyclists.

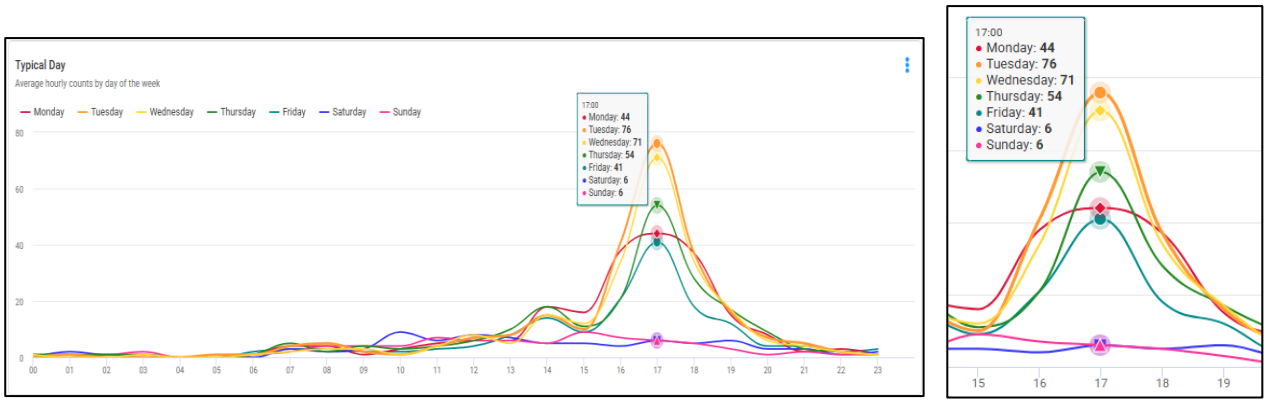

Figure 11. Outbound average hourly cyclist count by day of the week in Bowen Street in February 2025

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Weekday and weekend totals city bound

Inbound daily total cyclist counts show typical variability with higher activity on weekdays. The highest daily total of 301 was recorded on Tuesday 4 February.

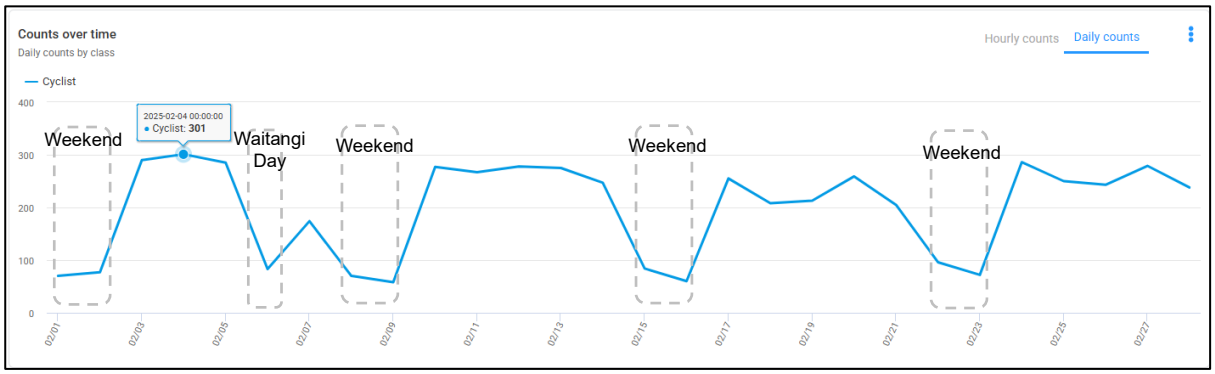

Figure 12. Citybound daily total cyclists count in Bowen Street in February 2025

Working day counts show approximately 250 cyclists per day. Note that Thursday 6 February was a public holiday, and many people also might not have worked on the following Friday. Weekends show an average of approximately 80 cyclists per day.

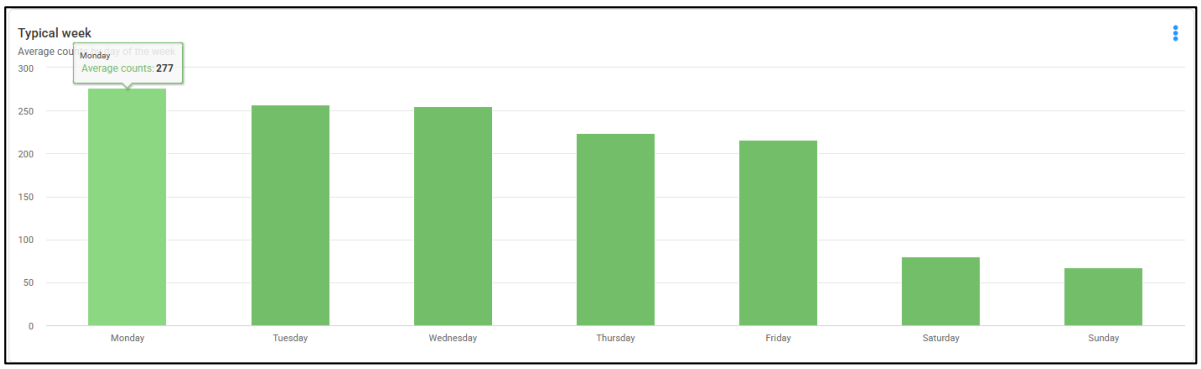

Figure 13. Citybound average cyclist counts by day of the week in Bowen Street in February 2025

The hourly pattern reveals 24/7 usage with less than 10 cyclists in most hours. A clear weekday peak is seen in the 7-8am hour ranging from 79 to 122 cyclists.

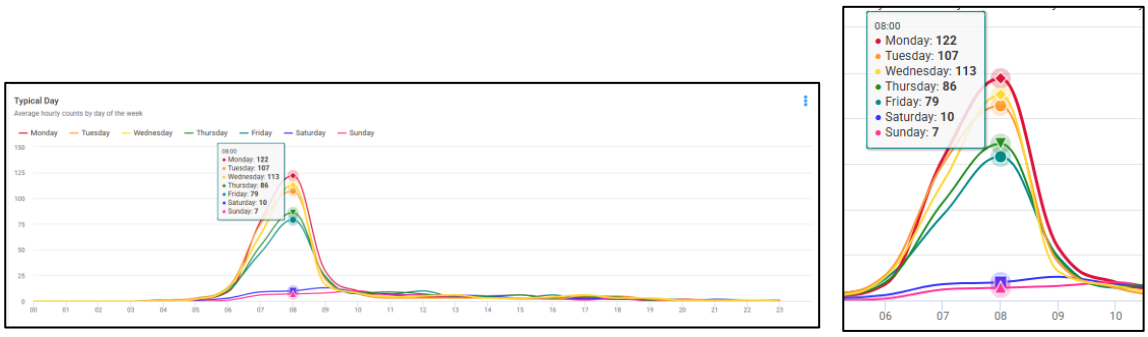

Figure 14. Citybound average hourly cyclist count by day of the week in Bowen Street in February 2025

Chaytor Street (Karori tunnel) bike data

The Chaytor Street VivaCity sensor is located at the west side of Karori tunnel. It is the third closest count location near the area of interest. Cycling activity on Chaytor Street was being monitored using BeCounted sensors from December 2017. A new VivaCity sensor (Sensor 18) was installed on Chaytor Street in December 2023. The new count line is aligned with the BeCounted sensors before and after Karori tunnel. The figure below shows a screenshot from the VivaCity sensor and count line on Chaytor Street. Note the system generated image is intentionally blurred to preserve privacy. The sensor position provides an unobstructed view of citybound, and outbound movements so is considered highly accurate.

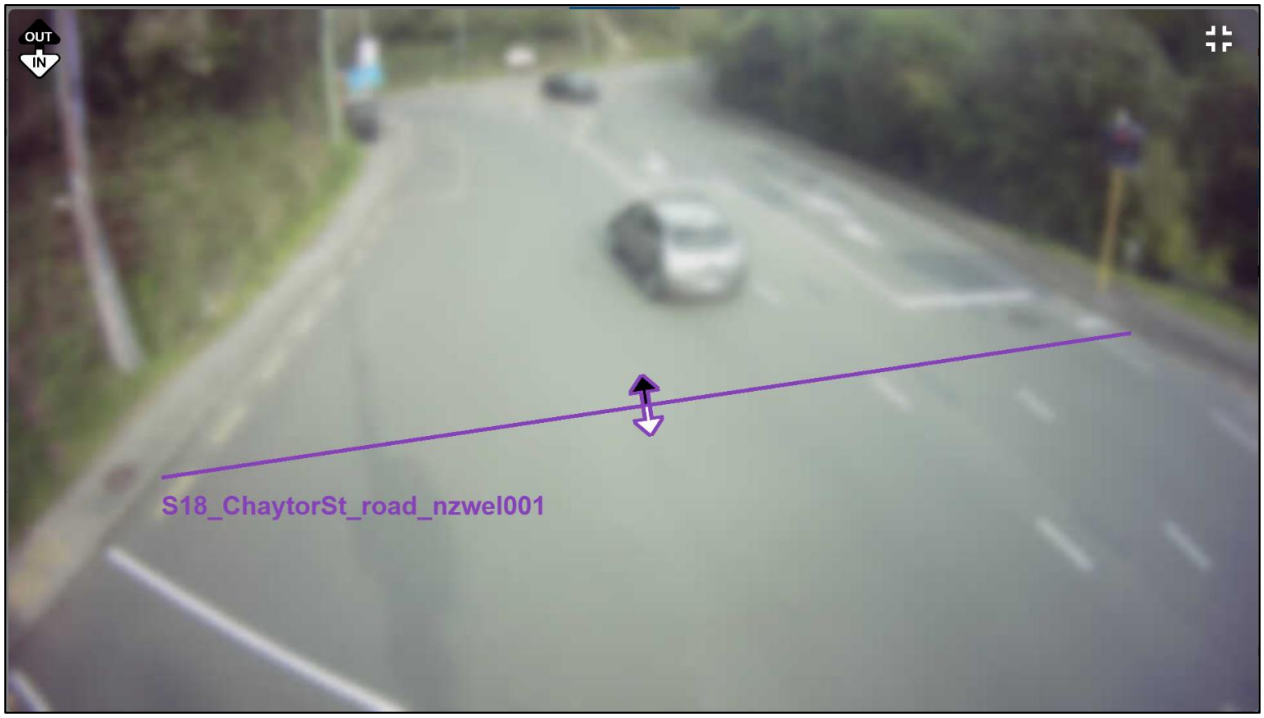

Figure 15. VivaCity sensor and count line image on Chaytor Street

Monthly counts directional balance

Figure 16 compares city-bound and Karori-bound monthly totals to check for a reasonable balance in cyclist flows. There is a strong correlation and similarity in the data over most months since July 2024 with the slight differences in May, June, and December 2024.

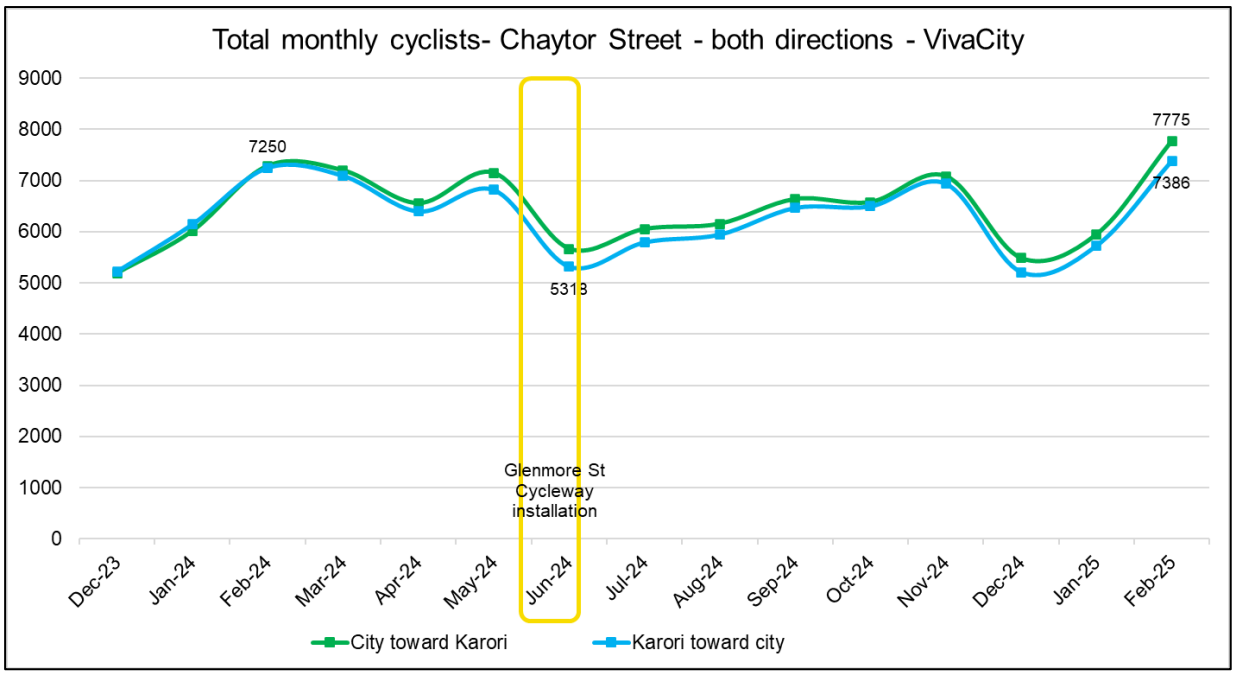

Figure 16. Total monthly number of cyclists on Chaytor Street (VivaCity data)

Monthly totals towards Karori

Figure 17 shows the monthly total counts of Karori-bound cyclists in Chaytor Street recorded by the BeCounted and VivaCity sensors from June 2023. The BeCounted data shows typical monthly variability which results from variations in the number of working days, school holidays and weather. The VivaCity data starts in December 2023. BeCounted data appears to record slightly lower numbers than VivaCity data for this location. The variance ranges from 106 to 348 cyclists per month, which indicates 95% to 98% of similarity between the two data sources.

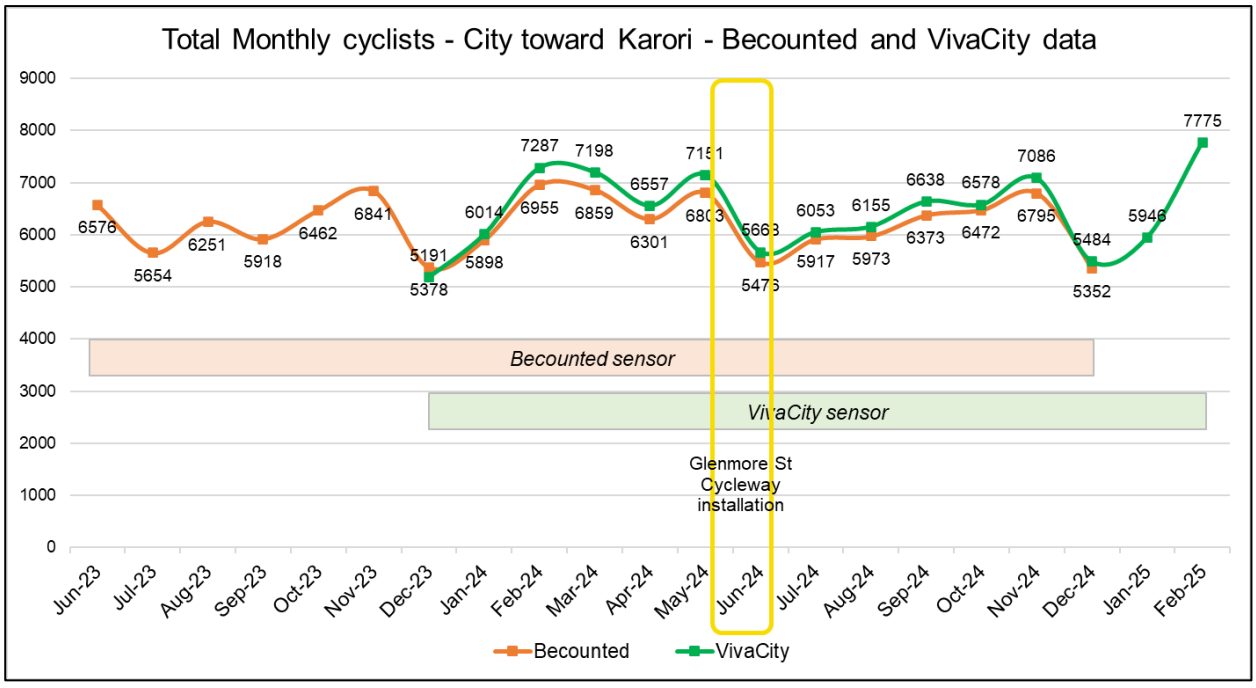

Figure 17. Monthly bike counts in Chaytor Street towards Karori

Monthly totals towards central city

Figure 18 shows the monthly total counts of city-bound cyclists in Chaytor Street recorded by the BeCounted and VivaCity sensors from June 2023. The VivaCity data starts in December 2023. The BeCounted data shows typical monthly variability which results from variations in the number of working days, school holidays and weather. BeCounted data records lower numbers than VivaCity data for this location. The variance ranges from 86 to 844 cyclists per month, which indicates 87% to 98% of similarity between the two data sources. VivaCity is likely to be more accurate at this location.

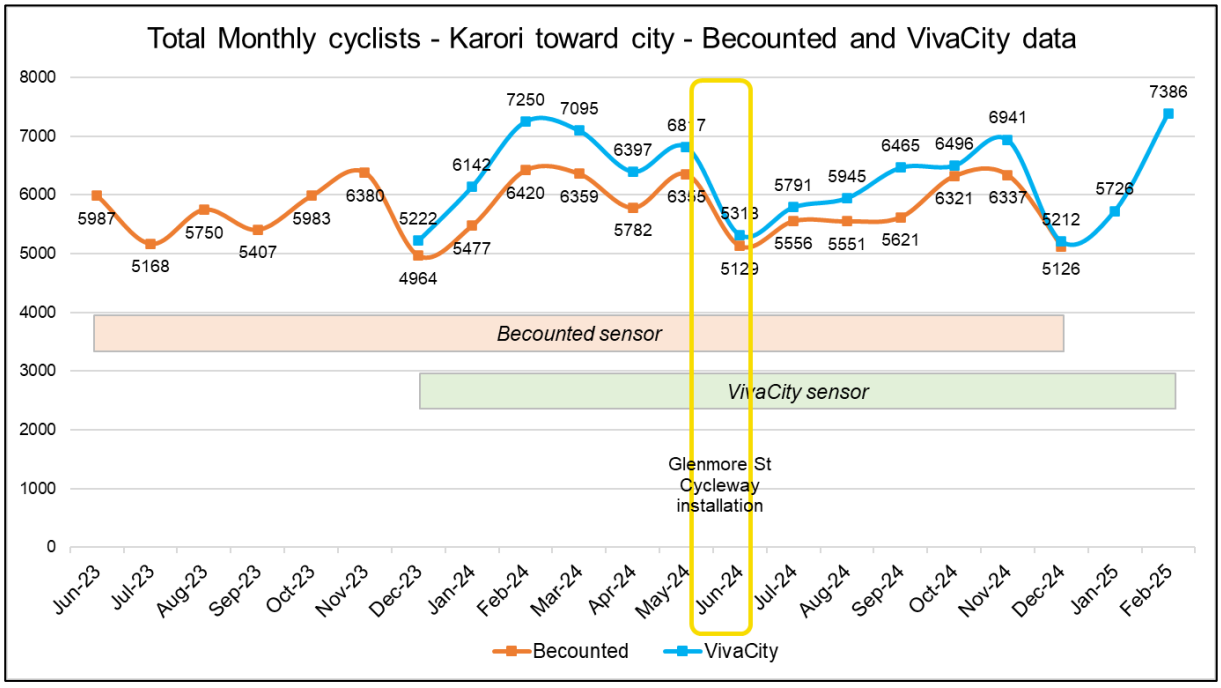

Figure 18. Monthly bike counts in Chaytor Street city bound

Weekday and weekend totals

Total count data (city-bound and Karori-bound) for February 2025 was analysed in detail to demonstrate daily and hourly patterns on Chaytor Street. Daily total cyclist counts show typical variability with higher activity on weekdays. The highest daily total of 817 for both directions was recorded on Monday 24 February.

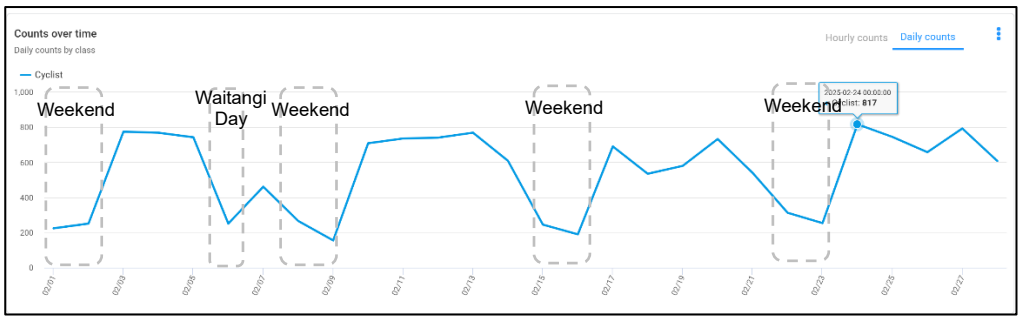

Figure 19. Both directions daily total cyclists count in Chaytor Street in February 2025

Working day counts show approximately 600-700 cyclists per day for both directions. Note that Thursday 6 February was a public holiday, and many people also did not work on the following Friday. Weekends are quieter still with averages of approximately 250 cyclists per day for both directions.

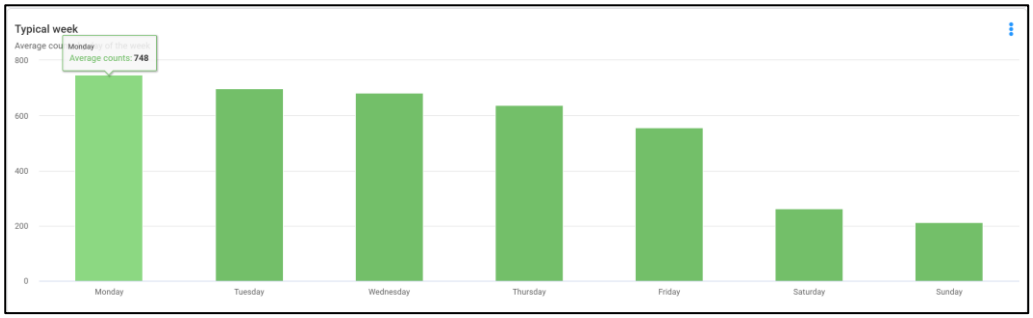

Figure 20. Both directions average cyclist counts by day of the week in Chaytor Street in February 2025

The hourly pattern reveals 24/7 usage with less than 20 cyclists in most hours for both directions. Clear weekday peaks are seen in the 7-8am hour ranging from 99 to 149 cyclists and 4-5pm hour ranging from 78 to 121 cyclists for both directions.

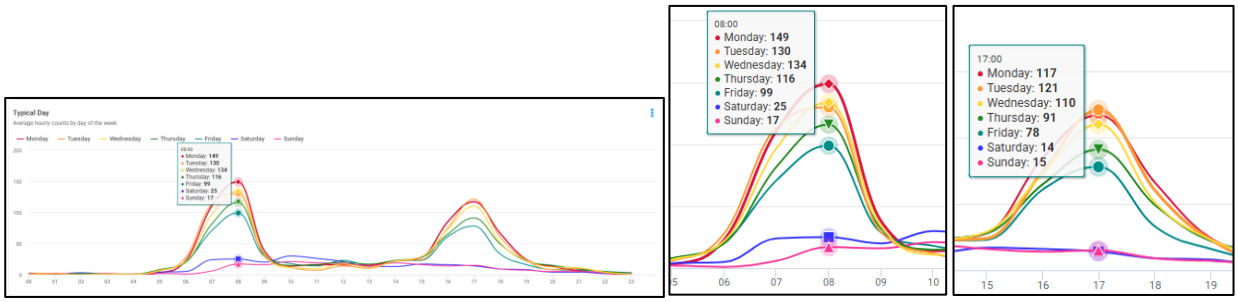

Figure 21. Both directions average hourly cyclist count by day of the week in Chaytor Street in February 2025

Total number of people biking near Glenmore Street since cycleway opened

Figure 22 below shows the total cycling activity at the start and end of the Glenmore Street cycleway since it was installed in July 2024.

From July 2024 to February 2025 (8 months):

- A total of nearly 78,000 trips by bike were observed in upper Bowen Street, 41,000 trips were cycling away from the central city, and 37,000 were towards the central city. Noting undercounting as mentioned earlier in this report.

- A total of 102,000 trips by bike were observed in Chaytor Street at Karori Tunnel, 52,000 trips were cycling away from the central city and 50,000 were towards the central city.

- The number of cycling trips on Chaytor Street is 31% more than Bowen Street. This is clearly due to cycling towards Kelburn using the Kelburn Viaduct on Upland Road.

Figure 22. Total cycling activity at the start and end of the Glenmore Street cycleway from July 2024 to February 2025

Conclusions

This report examined the available bike count data and provided analysis and insights for cycling activity along the Glenmore Street cycleway, considering the period from July 2023 to February 2025.

Data assessment for the Glenmore Street BeCounted sensors showed the data is not reliable to produce any meaningful insights. It is recommended that these counters be decommissioned as soon as possible.

Comparing data from BeCounted, VivaCity, and manual cordon counts on Bowen Street indicates an unacceptable level of under counting of bike activity at this location. Results of this validation assessment showed that while VivaCity data is the most reliable source for cycling activity towards central city, BeCounted data is more reliable for uphill cycling activity towards Karori.

Comparing data from BeCounted and VivaCity on Chaytor Street indicates quite similar bike numbers and data patterns.

Without a full validation process, we are unable to confirm the validity of any reported data. System validation, data checking and improving reporting processes is a necessary stage of commissioning the new traffic monitoring technology. This process has yet to commence for the VivaCity project.

Examination of monthly, weekly, and daily bike count totals has shown typical results with daily variability, busier weekdays compared to weekends, higher peak period volumes towards the central city in the morning and away from the central city in the afternoon.

Based on the nearby Bowen Street biking data, approximately 41,000 trips by bike have been made on the new Glenmore Street cycleway towards Karori over the eight months since it was opened in July 2024.

Comparison of cordon bike count on Bowen Street shows that cycling activity on Bowen Street increased significantly in 2025 compared to 2019. This increase was around 60% towards the central city.

Insufficient time has passed since the opening of the Glenmore Street cycleway to allow for any robust before and after analysis to conclude whether cycling activity has increase or not due to the lack of robustness of the earlier count data. To conduct a year-to-year monthly comparison of before and after bike data, a sample of at least six months of validated pre- and post-implementation data will be necessary to enable robust conclusions to inform any data-based decisions on the future of the new cycleway.

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Absolutely Positively
Wellington City Council
Me Heke Ki Pōneke