

July 2023

Pier Usage Analysis

**Evidencing Whether Selected Piers in London Are
Suitable for Future River Freight**

Wapping Pier VivaCity Sensors

Pier Monitoring

Pier & Sensor Location

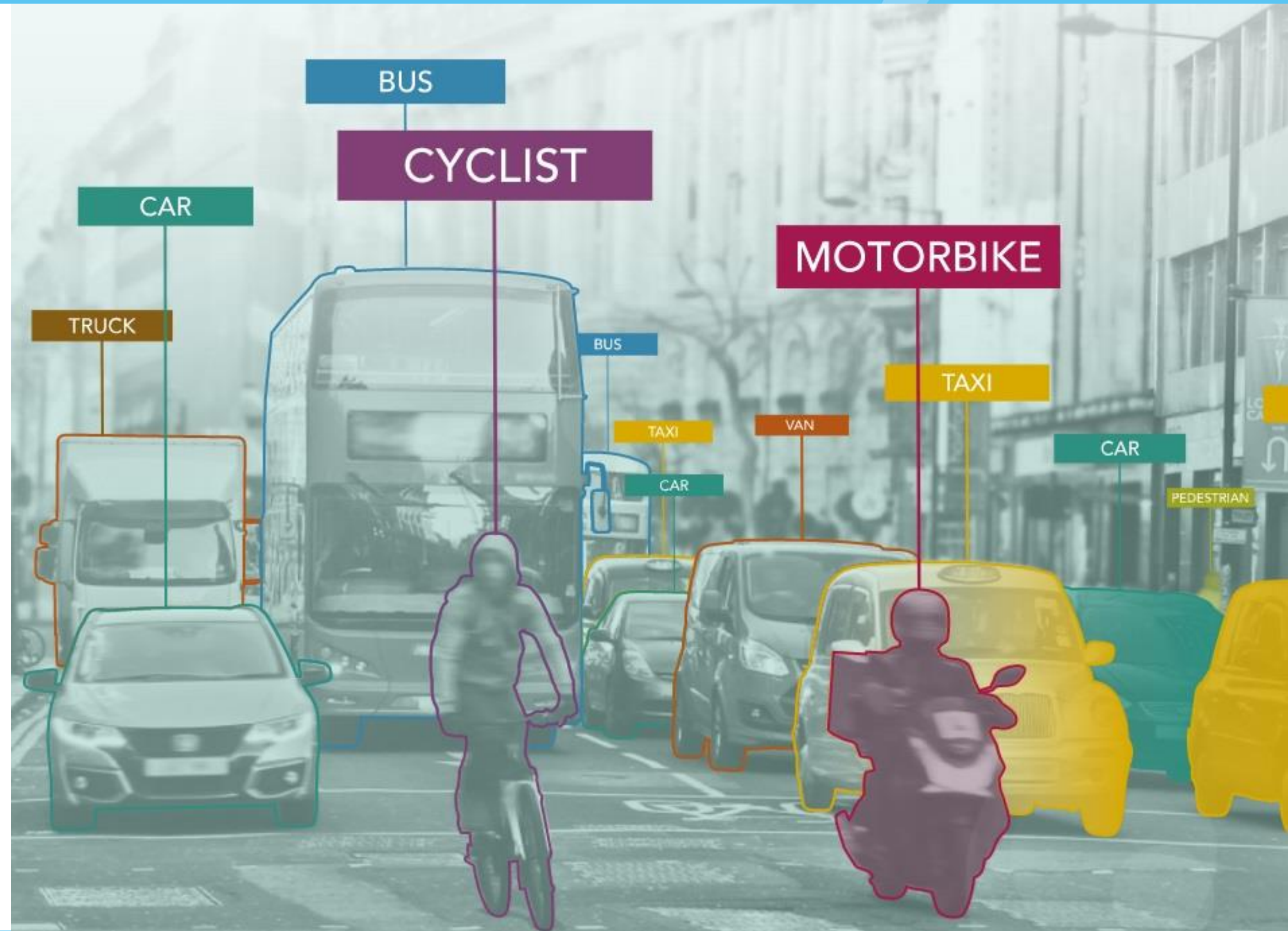


Generic VivaCity Sensor



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Pier Comparisons

Opportunities for Freight

How do all CALL piers differ and what do they have in common?

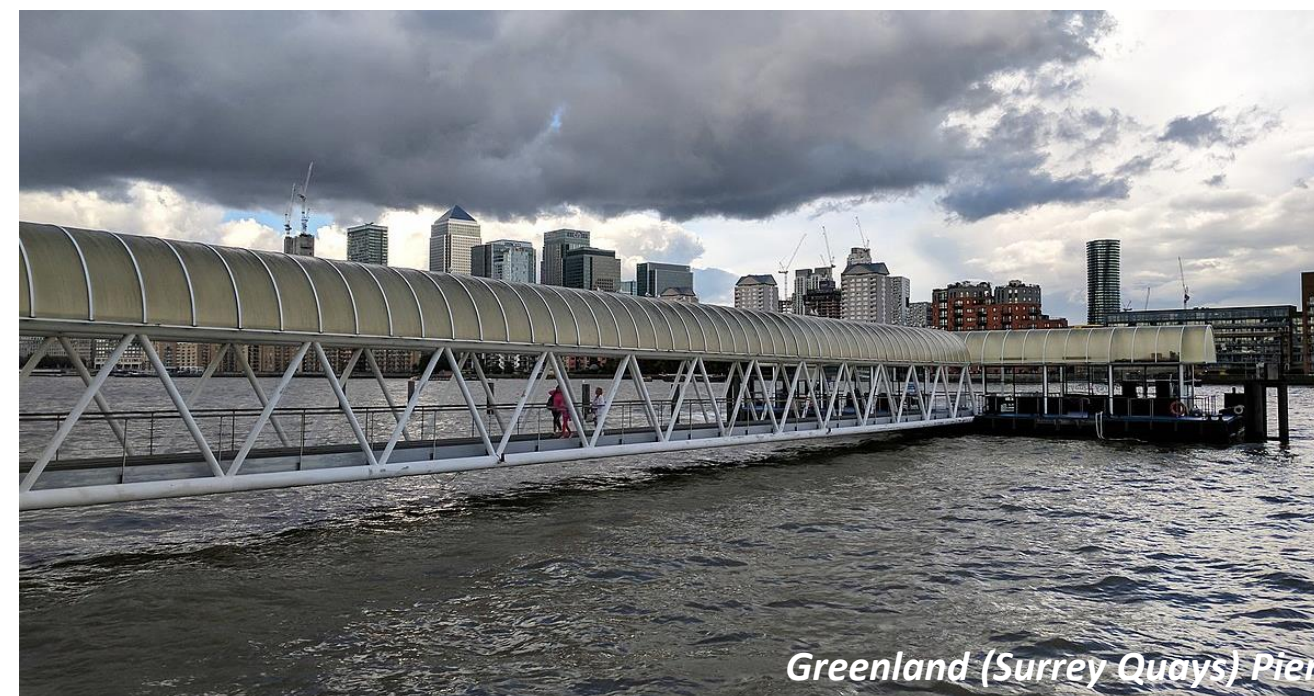
- Woods Quay, located in the City of Westminster, is a privately owned space and pontoon. It is mostly used as an event space and mooring for Woods' Silver Fleet river vessels. Woods Quay is accessible to pedestrians via two steep ramps from Victoria Embankment that lead to the Cormorant Deck and pontoon. Woods Quay links to the A3211 (Victoria Embankment) as well as the Cycleway 3.
- Wapping Pier, located in the London Borough of Tower Hamlets, is a privately owned pier with no passenger services or events spaces. It is accessible to pedestrians via a walkway (called King Henry's Stairs) leading to the pier. The pier links to Wapping High Street but to no listed London Cycleways.
- Greenland (Surrey Quays) Pier, located in the London Borough of Southwark, is a passenger pier owned by Thames Clippers and has regular passenger services, RB1 and RB6, regularly calling here. Greenland Pier is fully accessible to pedestrians, cyclists, and wheelchair users. This pier also links to Cycleway 14.



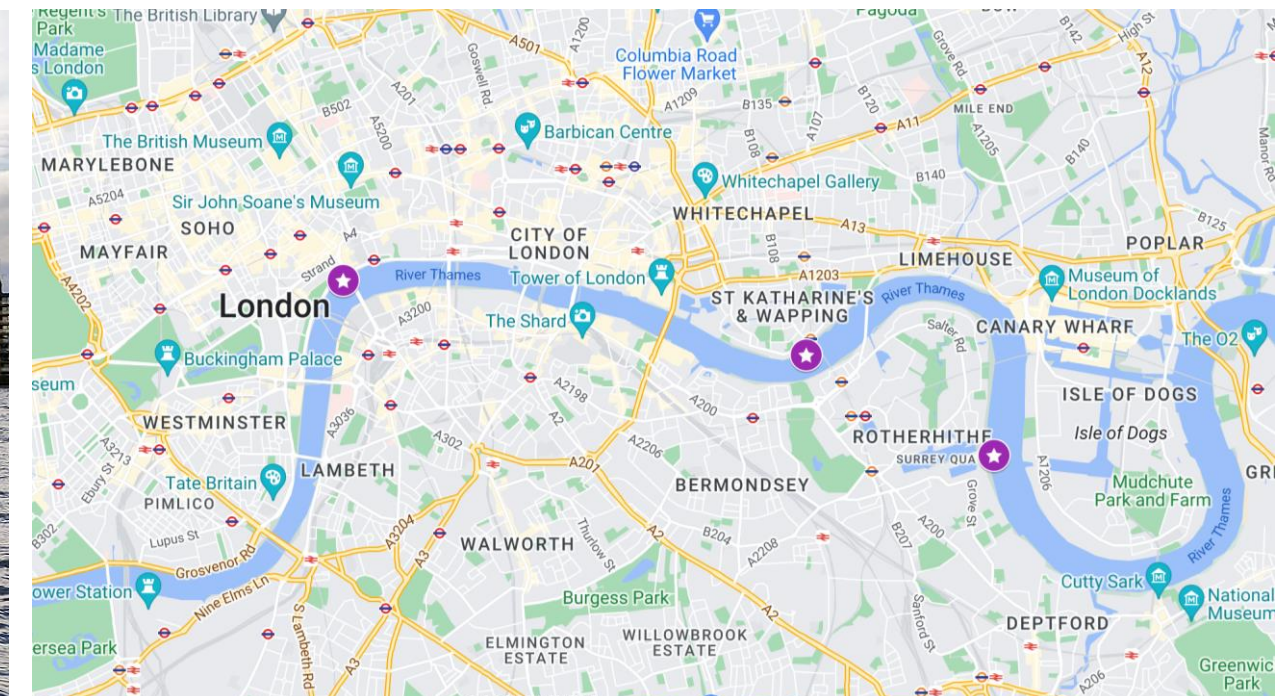
Woods Quay



Wapping Pier

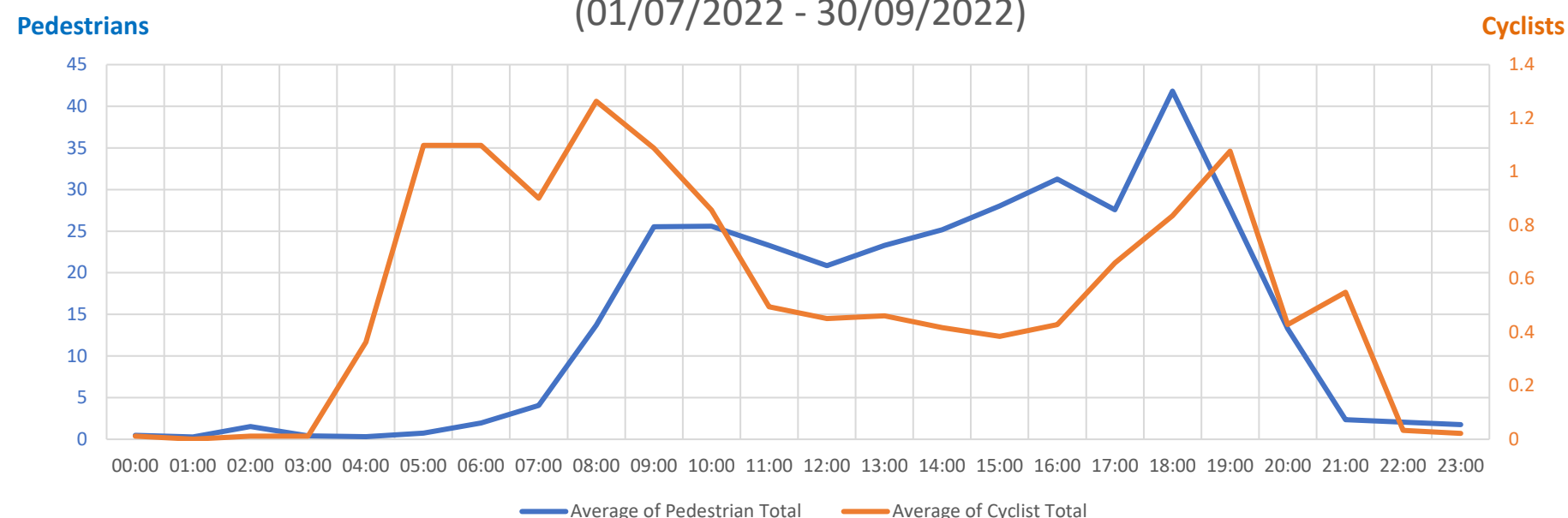


Greenland (Surrey Quays) Pier

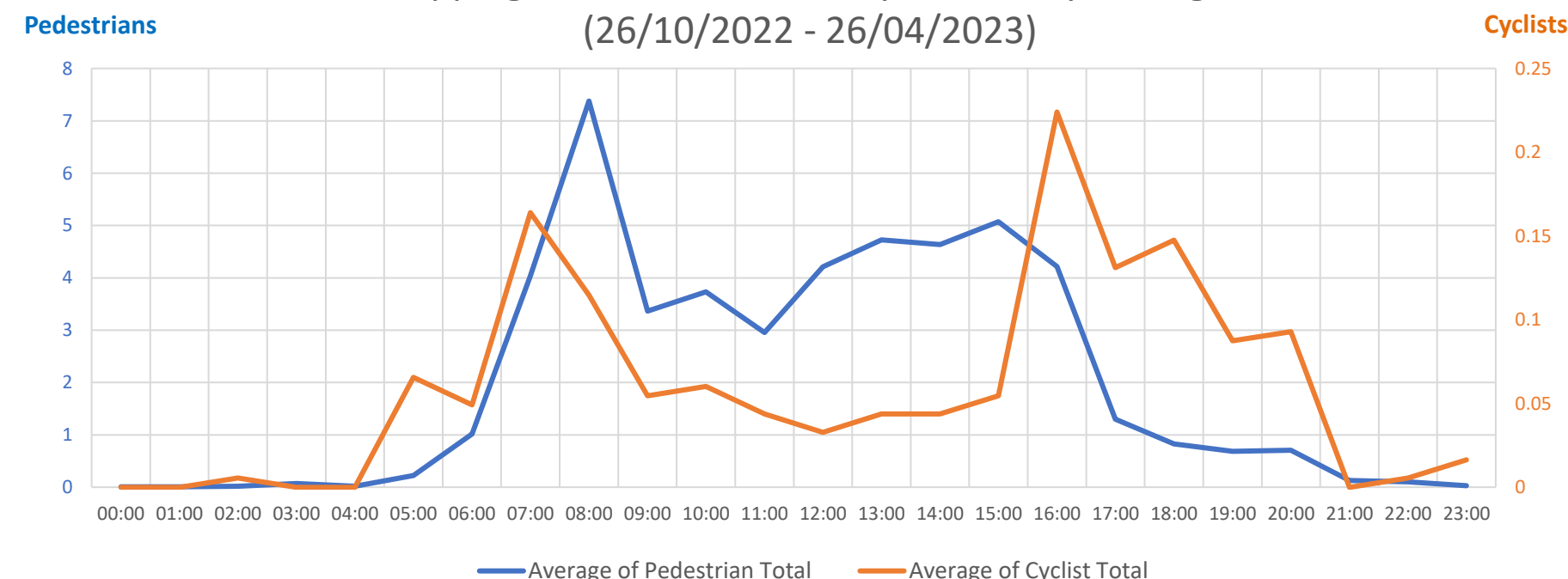


Movement Onto & From All CALL Piers – Hourly Averages Throughout Entire Monitoring Period

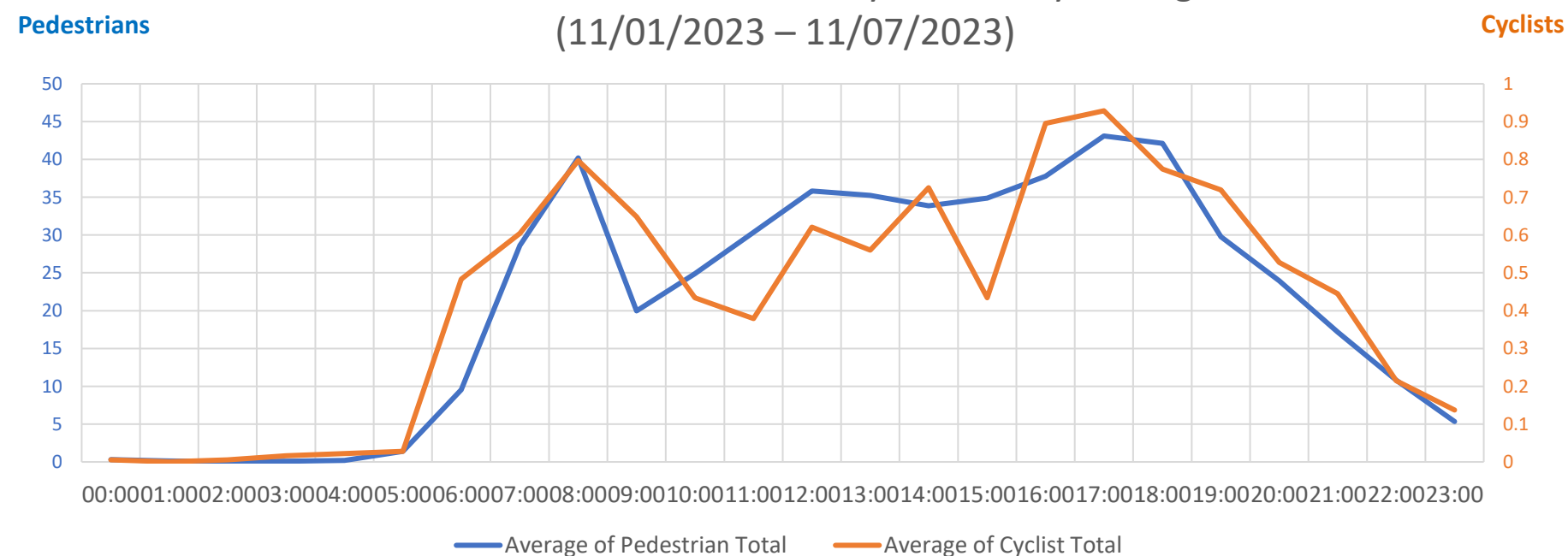
Woods Quay - Pedestrian & Cyclist Hourly Averages
(01/07/2022 - 30/09/2022)



Wapping Pier - Pedestrian & Cyclist Hourly Averages
(26/10/2022 - 26/04/2023)



Greenland Pier - Pedestrian & Cyclist Hourly Averages
(11/01/2023 – 11/07/2023)



- Throughout the entire monitoring periods, pedestrian and cyclist counts at all piers start decreasing in the evening (starting between 19:00 and 23:00) and remain low until the early morning (until between 04:00 and 07:00) when they offer an opportunity for potential river freight operations from these locations. The proposed available timeslots could offer a good opportunity to drop off and/or pick up goods via the river in the evening and early morning to/from low-emission couriers on land.
- Greenland Pier experienced the highest active travel counts, likely due to the regular Thames Clipper river bus services. This is followed by Woods Quay, which can be attributed to this being an events venue. The most underutilised pier is Wapping Pier, due to its private nature.

CALL Project: Pier Comparisons & Suitability for Light Freight Operations

When are our monitored piers currently being underutilised the most?

1) WOODS QUAY:

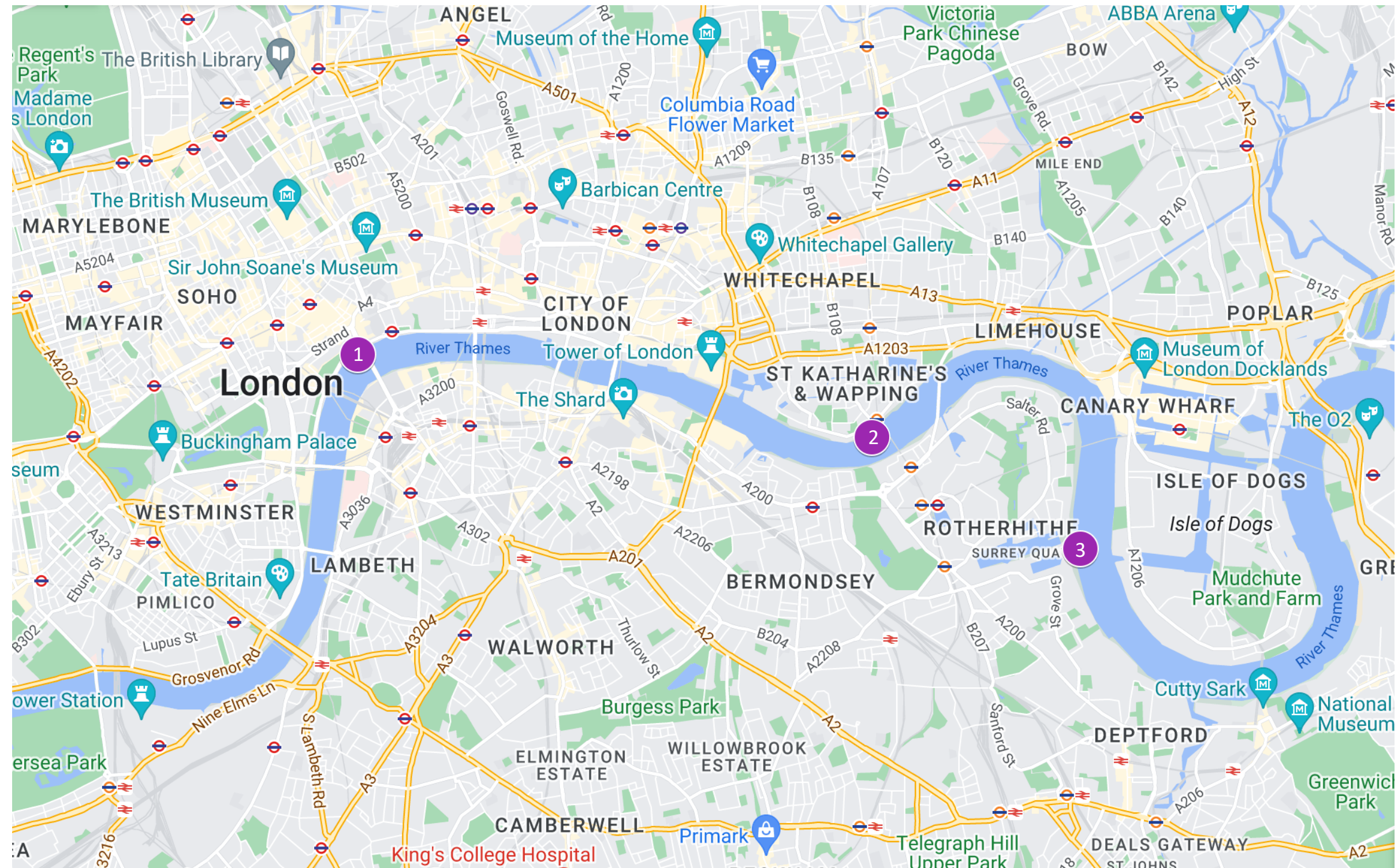
- Woods Quay
Active Travel
 - Sundays: 20:00 – 05:00
 - Mondays: 23:00 – 07:00
 - Fridays: 19:00 – 06:00

2) WAPPING PIER:

- Wapping High Street (near pier):
Active Travel
 - Mondays to Thursdays: 21:00 – 06:00
 Motor Vehicles
 - Fridays: 23:00 – 06:00
- Wapping Pier:
 - All week at all times
 - Mostly Fridays to Sundays: 19:00 – 04:00

3) GREENLAND (SURREY QUAYS) PIER:

- Princes Court (near pier):
Active Travel
 - Mondays to Thursdays: 22:00 – 06:00
 Motor Vehicles
 - All week at all times
 - Mostly Tuesday to Thursday: 00:00 – 09:00
- Greenland Pier:
 - Monday to Wednesday: 22:00 – 05:00



Wapping Pier Introduction

Project Summary

CRP’s Clean Air Logistics for London (CALL) is a Defra-funded project which aims to move more freight into London via river rather than road, supported by zero emission delivery methods in Central London.

This pier monitoring initiative seeks to understand movements around and onto/from certain piers and identify whether they may be suitable for future river freight operations based on their current underutilisation at specific time periods.



Daily average counts captured over the course of the 6-month monitoring period are detailed in the table below (note this is a daily average across all count lines):

		Wapping Pier	Wapping High Street
	Mode Type	Average Daily Count	Average Daily Count
Motor Vehicles	Articulate (OGV2)	N/A	0
	Bus	N/A	347
	Car	N/A	2,567
	Motorcycle	N/A	110
	Truck (OGV1)	N/A	24
	Van (LGV)	N/A	511
Active Travel	Pedestrian	49	5,622
	Cyclist	1	279

Monitoring Assumptions and Limitations

Classified Counts:
There are several general limitations associated with the classified counts data that should be taken into consideration when viewing the analysis. These are as follows:

- There are a few instances where vehicles have parked on or along the sensor count lines. This can result in multiple counts being created for a single vehicle. Similarly, there have been a small number of occasions where vehicles have reversed over a count line to park on a one-way street, causing outliers in the analysis.
- Stalls or other temporary objects can also be picked up as vehicles by the sensors.

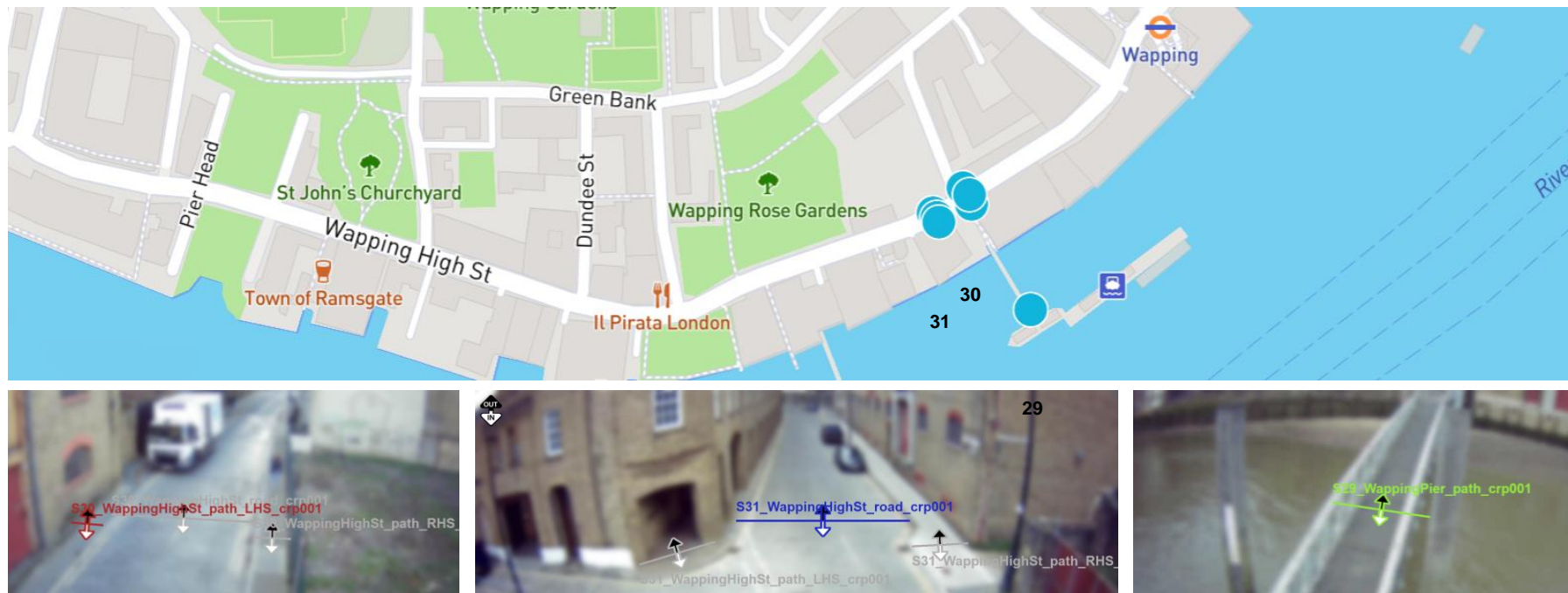
Specific to Wapping Pier:

- There was a sensor outage on the Wapping Pier sensor between 15/11/2023 13:00 and 23/11/2023 06:00.



Sensor Locations and Context

There are 3 VivaCity sensors located at Wapping Pier. One (29) is located on the pier itself, facing the pier's walkway (brow) to understand movement onto and from the pier. The remaining two sensors (30,31) are located on lampposts on Wapping High Street. These monitor movements on the road where the walkway leading to the pier (called King Henry's Stairs) is located. Consequently, Wapping Pier is accessible to mainly pedestrians via the King Henry's Stairs. The locations of the three sensors are indicated on the map below. The pier links to Wapping High Street but to no listed London Cycleways.



Key Findings

Key findings from the 6-month monitoring project are detailed on the right. Further information on each key finding is detailed within this pack.

Referenced weather data and facts can be viewed at www.visualcrossing.com and www.timeanddate.com.

- **DHL River Freight Trial:**
 - Arrives at Wapping Pier daily around 08:30 and 09:00 from Monday to Friday (regular)
 - Unloading goods from the river vessel and loading them onto the EV takes around 5 minutes
 - Goods transported in 1-2 trips from pier to EV van on Wapping High Street
- **River Freight Trial Impact:**
 - The impact analysis shows that there has been minimal impact of DHL's river freight trial on Wapping Pier's usage. The river freight trial's operations likely only attributed 2 to 4 counts (1 to 2 trips) to the pedestrian levels between 08:00 and 09:00 to pick up parcels from Wapping Pier and load them onto their van on Wapping High Street. The DHL electric van carrying out the last-mile deliveries only accounted for 1 to 2 van counts (arrival and departure) between 08:00 and 09:00 on Wapping High Street.
- **Summary & Opportunities:**

The days and times below show when the pier and street nearby are underutilised, which pose an opportunity for more river freight operations during these days and times:

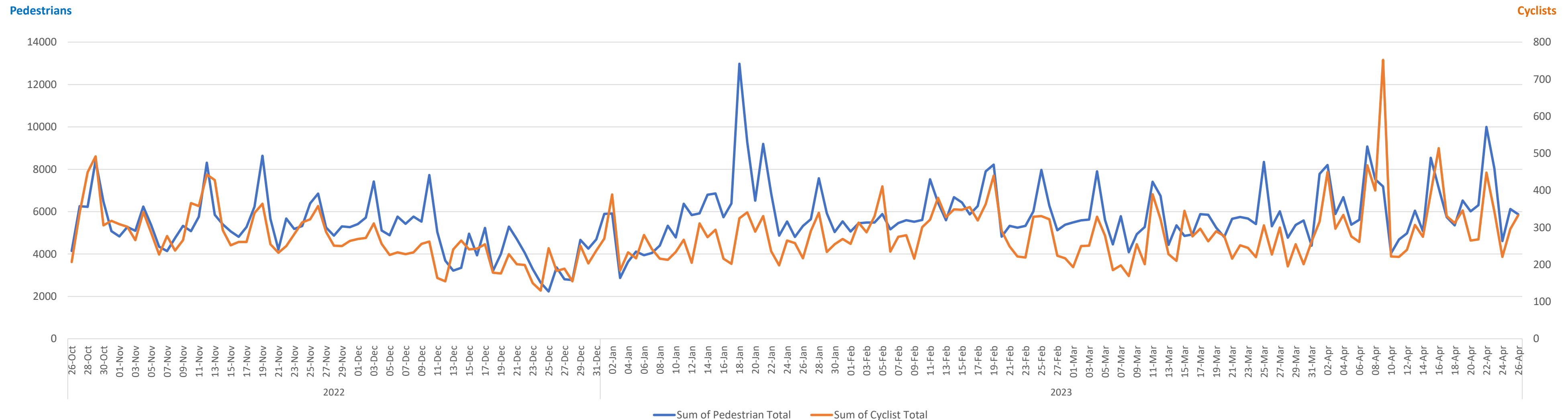
 - Wapping High Street (near pier):
 - Active Travel
 - Mondays to Thursdays: 21:00 – 06:00
 - Motor Vehicles
 - Fridays: 23:00 – 06:00
 - Wapping Pier:
 - All week at all times
 - Mostly Fridays to Sundays: 19:00 – 04:00

Pier Usage Analysis

Movement around the Pier

Analysis: Movement Around the Pier (Wapping High Street)

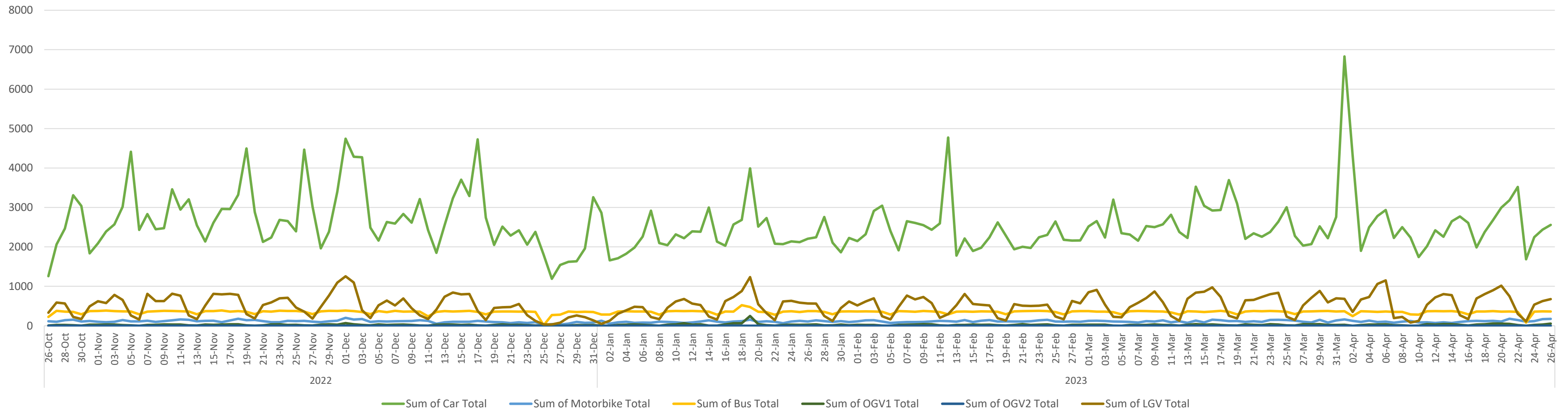
Active Travel Counts – Totals



- Overall, pedestrian levels are higher than cyclist counts on Wapping High Street throughout the 6-month monitoring period.
- The highest number of pedestrians on Wapping High Street near the pier's entrance can be seen on Wednesday, 18th January 2023 (12,979). This is due to a private pyrotechnics event from 10:00 – 11:30 and 16:00 – 22:00 on Wapping Pier on 18th as well as the evening of Thursday, 19th January 2023. Many of this event's staff members as well as onlookers passed through the area.
- Cyclist counts reach their maximum on Sunday, 9th April 2023 (752), likely due to the warm and sunny weather.
- Pedestrian levels during the monitoring period usually range between 2,000 and 9,000 and cyclist counts lie between 100 and 500.
- Pedestrian and cyclist numbers decrease around the Christmas period (21st – 27th December 2022), likely attributed to people leaving the local area to visit friends and family members.

Analysis: Movement Around the Pier (Wapping High Street)

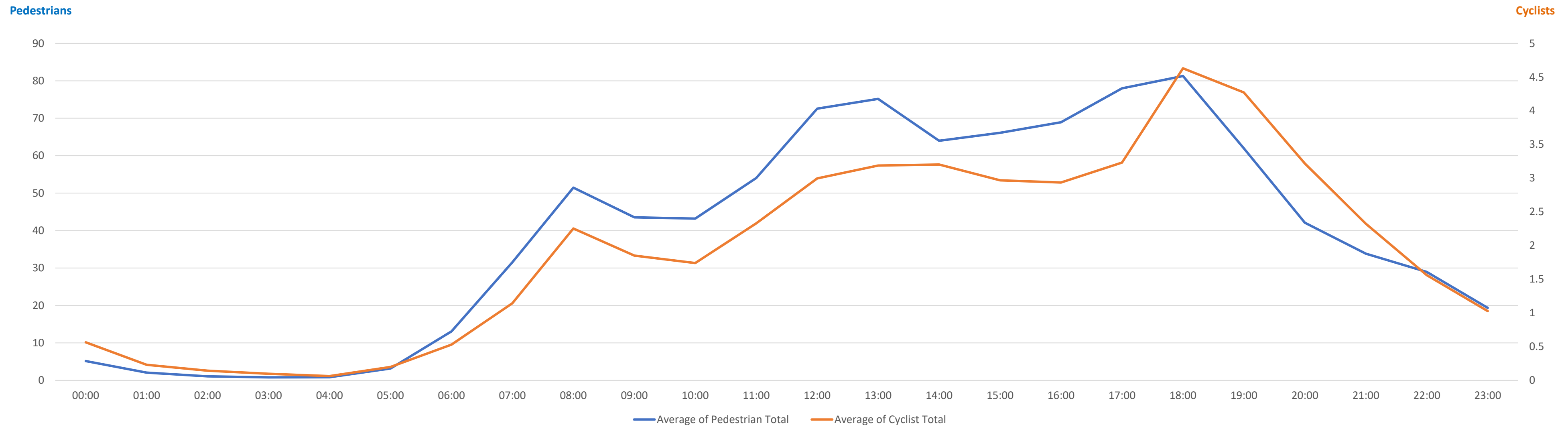
Motor Vehicle User Counts – Totals



- Car counts are the highest of all vehicular modes throughout the 6-month monitoring period on Wapping High Street, followed by vans, buses (bus lines 100 and D3), and motorbikes. Truck and articulate levels remain low.
- The highest car numbers can be observed on Saturday, 1st April 2023 (6,828), which was the first day of Easter break.
- Van numbers follow a regular pattern, where van levels rise throughout the work week and then decrease on weekends, especially on Sundays when there aren't any Royal Mail deliveries.
- Similar to active travel counts, motor vehicle numbers decrease around the Christmas period (21st – 27th December 2022), as possibly many people left the local area to visit friends and family members outside of Wapping.

Analysis: Movement Around the Pier (Wapping High Street)

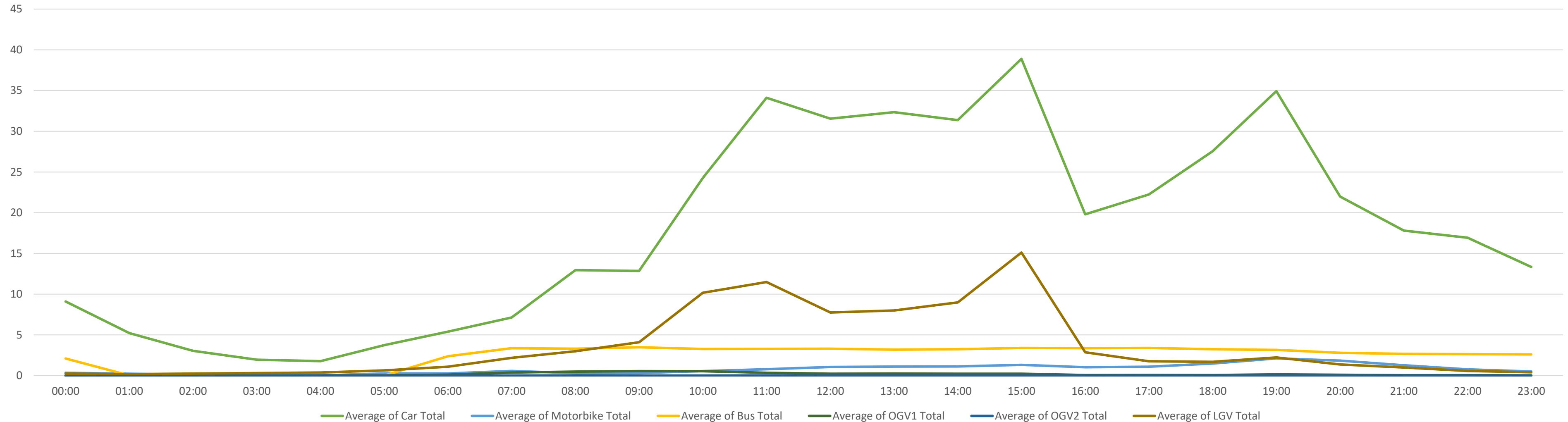
Active Travel Counts – Hourly Averages



- Hourly average pedestrian and cyclist counts on Wapping High Street over the 6-month monitoring period follow a similar pattern.
- Numbers start rising from 04:00 onwards until 08:00, due to morning commute, after which numbers drop but rise again between 12:00 and 13:00 during lunch time. Hourly average pedestrian and cyclist levels peak at 18:00, due to evening commute, before falling and remaining low until 03:00.

Analysis: Movement Around the Pier (Wapping High Street)

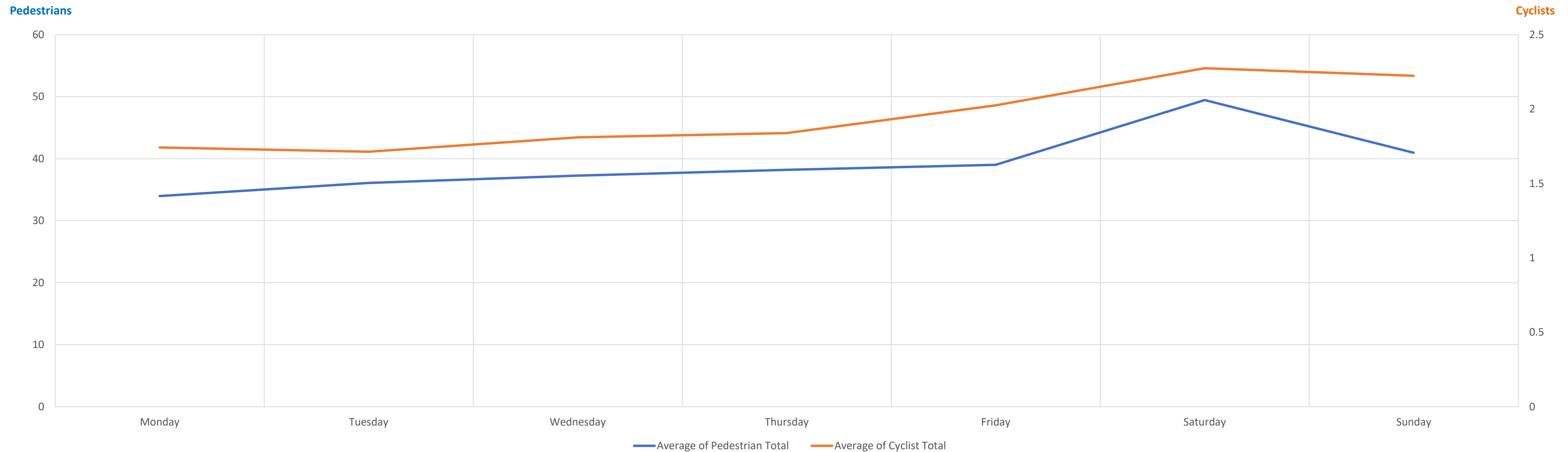
Motor Vehicle Counts – Hourly Averages



- Car and van counts follow a similar pattern: numbers start rising from 04:00 until 11:00, before peaking at 15:00 as well as at 19:00 again. These increases are consistent with morning and evening commuting, as well as school pick-up and afternoon deliveries.
- Bus counts appear consistent throughout the day, with around 3 hourly buses from 06:00 until 00:00 on average. This can be attributed to the bus lines 100 and D3, which both regularly pass Wapping High Street.
- Overall, there is limited motor vehicle movement and mostly counts under 5 vehicles per hour on average between 01:00 and 05:00.

Analysis: Movement Around the Pier (Wapping High Street)

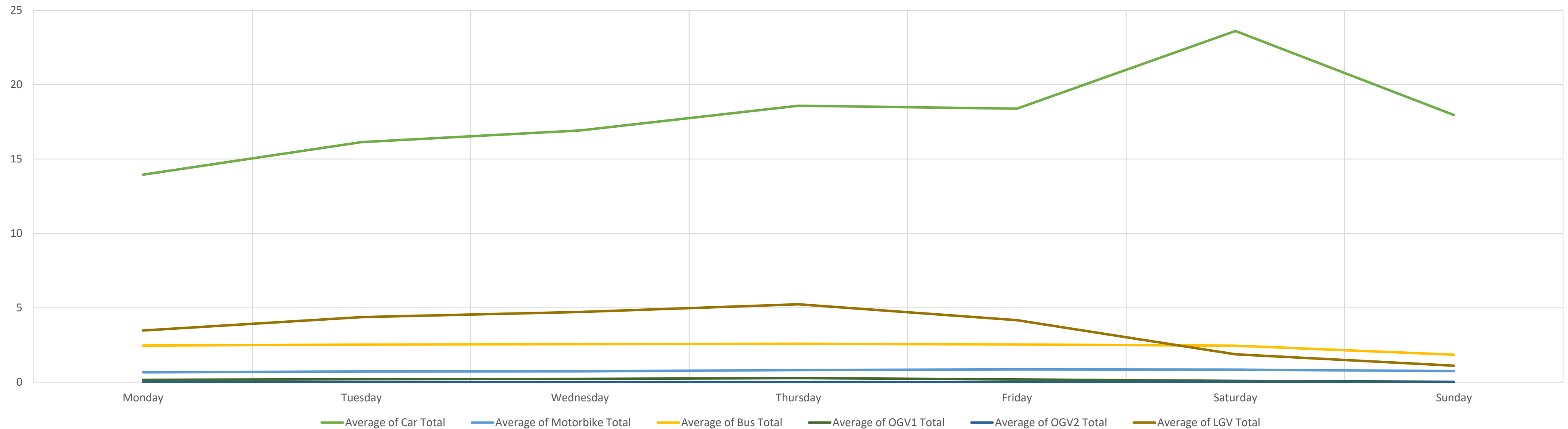
Active Travel Counts – Weekday Averages



- The graph summarises the average pedestrian and cyclist counts per weekday on Wapping High Street, based on the 6-month monitoring data.
- Average pedestrian and cyclist counts tend to start increasing early in the week, and reaching their maximum on Saturdays, before dropping again on Sunday.
- On Saturdays, 49 pedestrians and 2 cyclists on average walk or ride along Wapping High Street.
- This pattern could be attributed to more people walking or cycling in the area in their free time on weekends, rather than on work days between Mondays to Fridays.

Analysis: Movement Around the Pier (Wapping High Street)

Motor Vehicle Counts – Weekday Averages



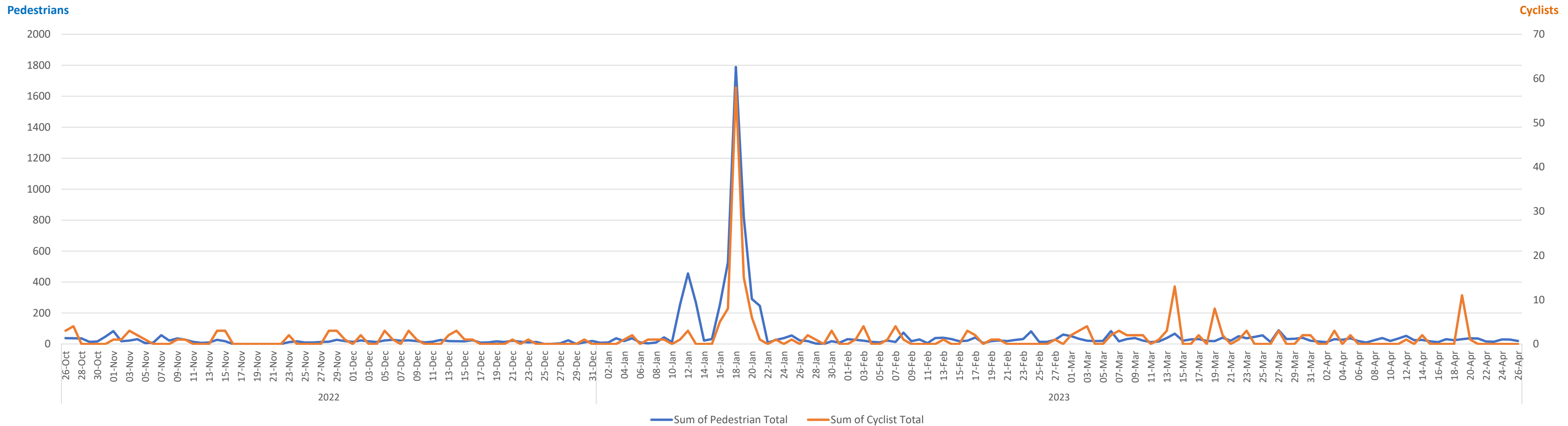
- The graph summarises the average motor vehicle counts per weekday on Wapping High Street, based on the 6-month monitoring data.
- Average car counts tend to increase throughout the week, before peaking on Saturdays (average of 24) and dropping on Sundays again. This could be due to increased traffic and activities in the local area on weekends.
- Van counts are relatively steady from Monday to Friday but drop on weekends, as some couriers, such as Royal Mail, often reduce their delivery operations on weekends.
- Bus levels remain constant throughout the entire week, likely due to set schedules.

Pier Usage Analysis

Movement onto & from the Pier

Analysis: Movement Onto & From the Pier

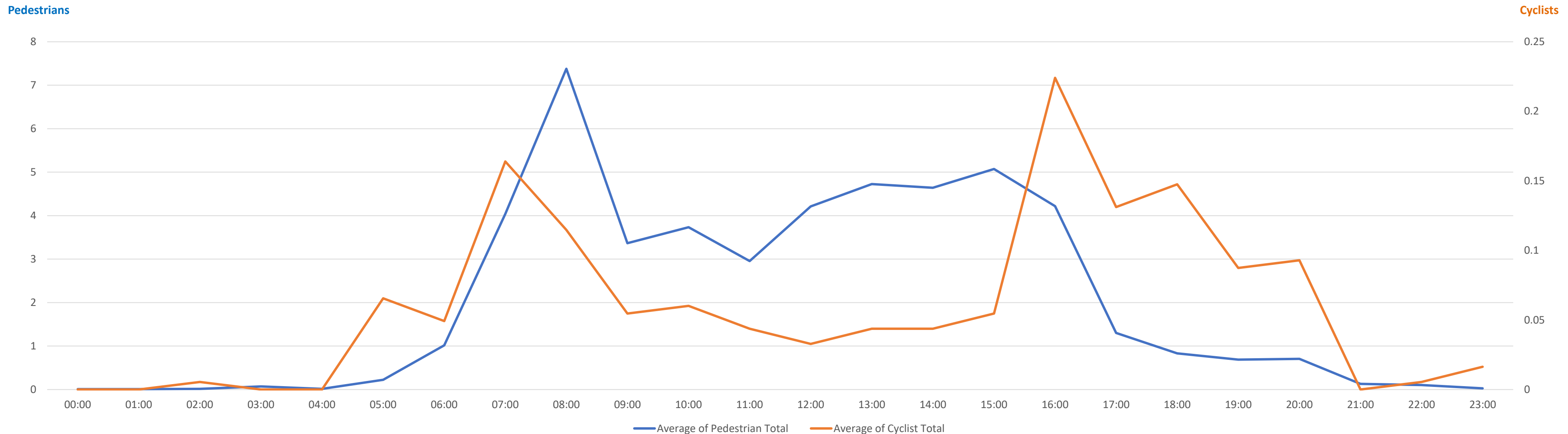
Active Travel Counts – Totals



- On Wapping Pier, pedestrian levels are higher than cyclist counts throughout the 6-month monitoring period.
- As a general trend, daily pedestrian counts remain below 100 and daily cyclist levels remain below 5.
- The highest number of pedestrians on Wapping can be seen on Wednesday, 18th January 2023 (1,789). This is due to a private pyrotechnics [event](#) from 10:00 –11:30 and 16:00 – 22:00 on Wapping Pier on 18th as well as the evening of Thursday, 19th January 2023. Cyclist counts also peaked on this day (58), possibly as wheeled trolleys or cargo bikes transported equipment onto the pier for this event.
- The rise in pedestrian levels on Wednesday, 11th and Thursday, 12th January 2023, could be due a site visit by possibly the same organisers a week before this pyrotechnics event.

Analysis: Movement Onto & From the Pier

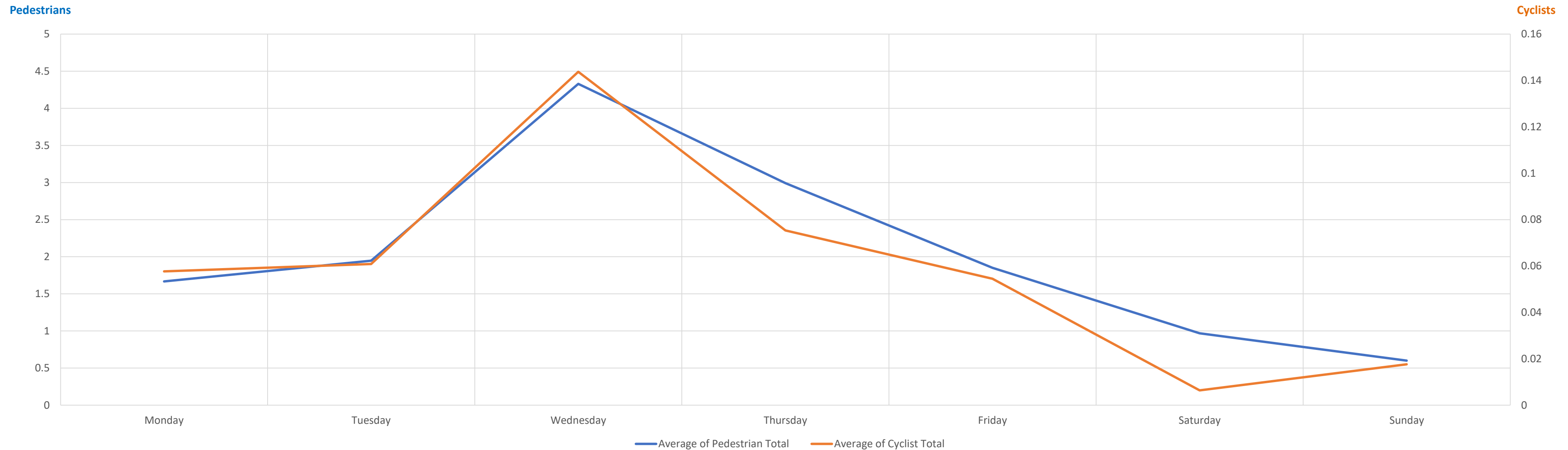
Active Travel Counts – Hourly Averages



- Hourly average pedestrian and cyclist counts both have a morning and afternoon peak.
- Pedestrian levels start rising at 04:00, peak at 08:00 (7), before slightly dropping and then rising at 15:00 (5) again. Footfall levels then remain low between 18:00 and 03:00.
- Overall, hourly average cyclist counts are very low, never surpassing more than 0.25 throughout the monitoring period.
- Cyclist counts start increasing from 04:00, rising at 07:00, decreasing between 08:00 and 12:00 and peaking at 16:00, before slowly decreasing until 21:00. Numbers remain low between 22:00 and 03:00.

Analysis: Movement Onto & From the Pier

Active Travel Counts – Weekday Averages



- The graph summarises the average pedestrian and cyclist counts per weekday on Wapping Pier, based on the 6-month monitoring data.
- Pedestrian and cyclist counts over the 6-month monitoring period follow a similar pattern in terms of weekday averages.
- Wednesdays experience the most pedestrian and cyclist movements on average, before steadily decreasing until Sunday. Numbers then start rising from Monday onwards again.
- Cyclist counts on Thursdays and Saturdays are lower than pedestrian averages on these weekdays.

DHL River Freight Trial Impact Analysis

River Freight Trial Impact Analysis: DHL River Freight Trial Summary

The DHL River Freight Trial's river vessel travels between Wandsworth Pier, Bankside Pier, and Wapping Pier. At Wapping Pier, parcels are pre-sorted onboard the river vessel and then handed in around 5 to 10 bags to the DHL electric van driver, who usually manually carries these bags from the pier to the parked DHL EV on Wapping High Street. This is often undertaken in 1 to 2 trips. If a larger amount of parcels arrive at Wapping Pier, the EV driver may also use a trolley to transport the bags of parcels from the pier to the EV.



(Bankside Pier) Picture credit: DHL

Key Details:

- The DHL River Freight Trial has been in operation since 2020
- Smaller individual parcels arriving at Wapping Pier are pre-sorted onboard the river vessel

Operational Times (Arrival Times at Wapping Pier):

- Vessel arrives daily around 08:30 and 09:00 from Monday to Friday (regular)
 - Unloading goods from the river vessel and loading them onto the EV takes around 5 minutes

Goods transported:

- Around 5 to 10 bags of DHL parcels
- Usually manually carried or sometimes transported on a trolley from the pier to the electric van (EV)
- In 1 to 2 trips between the pier and Wapping High Street where EV is parked

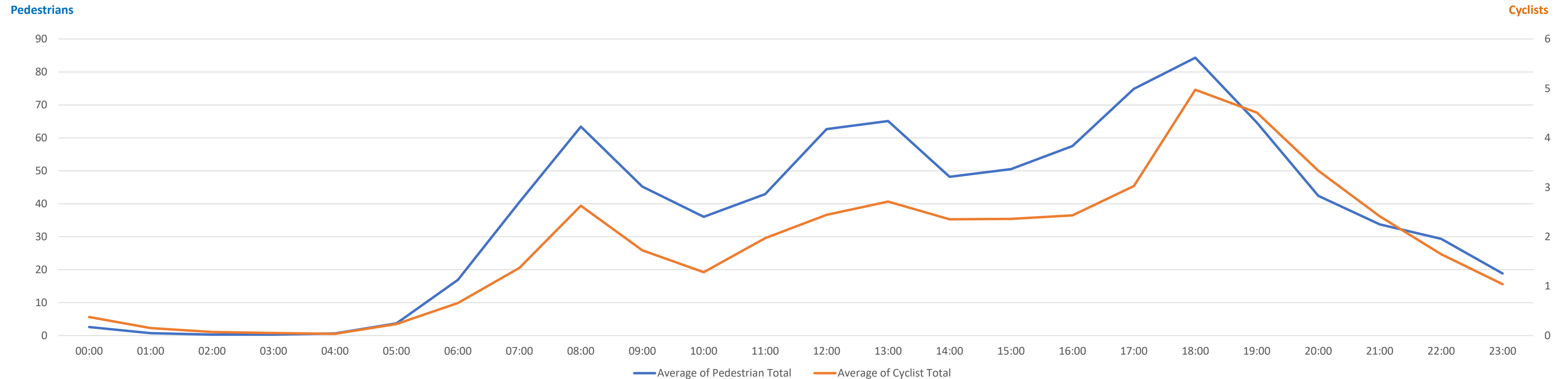
Onward deliveries:

- DHL electric van (EV) used for last-mile
- Delivery to the local E1 area near Wapping Pier

Read more about the trial here: [DHL Riverboat Thames Service](#)

River Freight Trial Impact Analysis: Pier Usage (Monday – Friday)

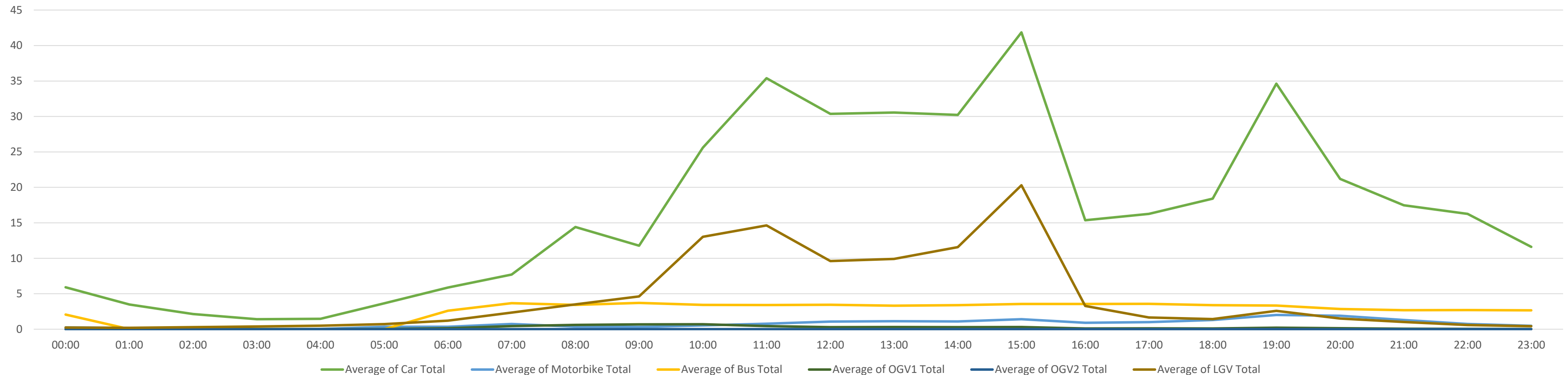
Hourly Average Active Travel Counts – Movement Around the Pier (Wapping High Street)



- During trial days, from Monday to Friday, hourly average pedestrian and cyclist counts on Wapping High Street follow a similar pattern. However, cyclist counts are much lower than footfall levels along this street.
- Values start increasing from 04:00 onwards, rising at 08:00 (average of 63 pedestrians and 3 cyclists per hour), 13:00 (average of 65 pedestrians and 3 cyclists per hour), and peaking at 18:00 (average of 85 pedestrians and 5 cyclists per hour). Counts then start steadily decreasing from 19:00 onwards and remain low until 03:00.
- As parcels are being carried from the pier to the street as part of the DHL river freight trial during rush hour and morning commuting times, it is unlikely that the small peak at around 08:00 was solely caused by these DHL operations. Based on DHL data, their van driver usually only requires 1 to 2 trips (2 to 4 counts) to pick up parcels from the boat and load them onto their vehicle between 08:30 and 09:00.

River Freight Trial Impact Analysis: Pier Usage (Monday – Friday)

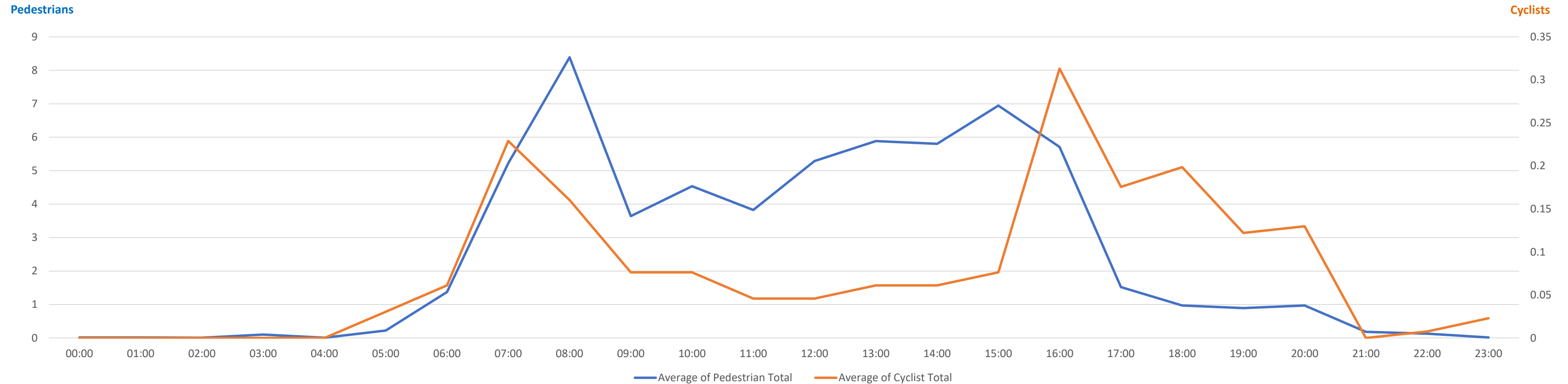
Hourly Average Vehicular Counts – Movement Around the Pier (Wapping High Street)



- Hourly average vehicular counts on Wapping High Street from Monday to Friday, do not show the same trends as the pedestrian and cyclist data.
- Cars and vans accounted for most of the vehicular counts and share two peaks at 11:00 (average of 30 cars and 15 vans per hour) and 15:00 (average of 42 cars and 20 vans per hour). Car counts also peak at 08:00 (14) and 20:00 (35).
- Bus counts seem consistent throughout the day, with around 3 hourly buses from 06:00 until 00:00 on average. This can be attributed to the bus lines 100 and D3, which both regularly pass Wapping High Street.
- Motorbike, truck and articulate counts remain low and don't surpass 2 hourly vehicular counts throughout the monitoring period.
- DHL's van parked on Wapping High Street as part of the trial likely attributed to 1 to 2 additional counts between 08:00 and 09:00. Only an hourly average of 3 to 5 vans were recorded around these times.

River Freight Trial Impact Analysis: Pier Usage (Monday – Friday)

Hourly Average Active Travel Counts – Movement Onto and Off the Pier

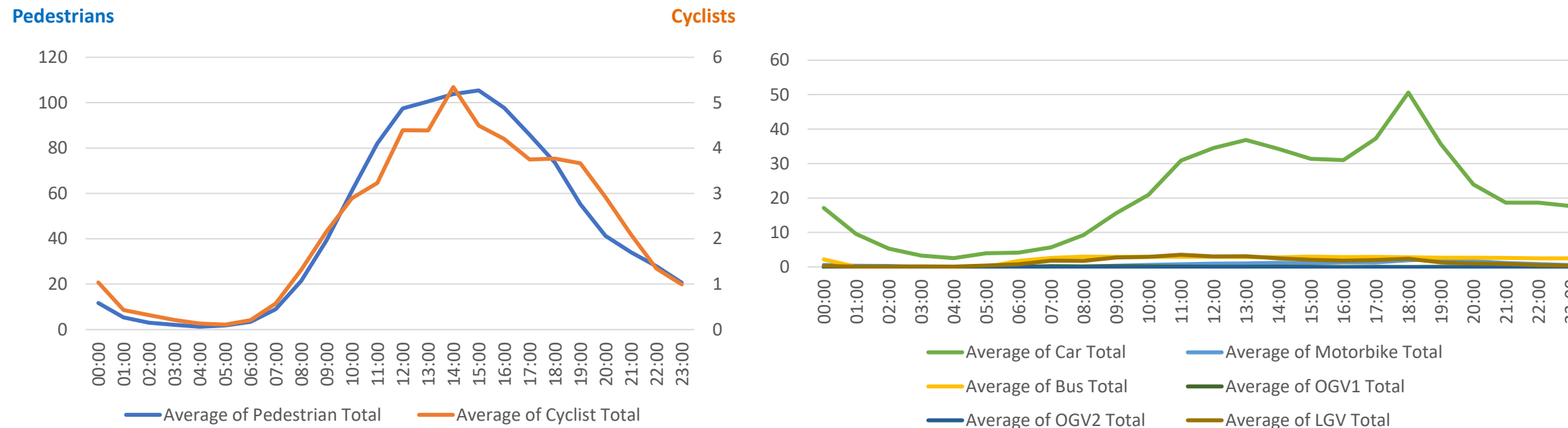


- During trial days, from Monday to Friday, hourly average pedestrian and cyclist counts on Wapping Pier remained low. The highest recorded counts throughout the monitoring period were only an hourly average of 8 pedestrians at 08:00. Cyclist levels don't surpass 0.35 hourly average counts.
- Pedestrian counts start rising from 04:00 onwards, peaking at 08:00 (8) and remaining steady until 15:00 (7) before dropping at 16:00 and remaining low until the early morning.
- Cyclist levels also increase from 04:00 onwards, but peak at 07:00 and then decrease until 14:00. Values rise at 15:00 and peak at 16:00 (0.31), before gradually decreasing and remaining low until 03:00.
- The DHL river freight trial's operations likely only attributed 2 to 4 counts (1 to 2 trips) to the pedestrian levels between 08:00 and 09:00 to pick up parcels from Wapping Pier and load them onto their van on Wapping High Street.

River Freight Trial Impact Analysis: Non-Trial Days (Weekends)

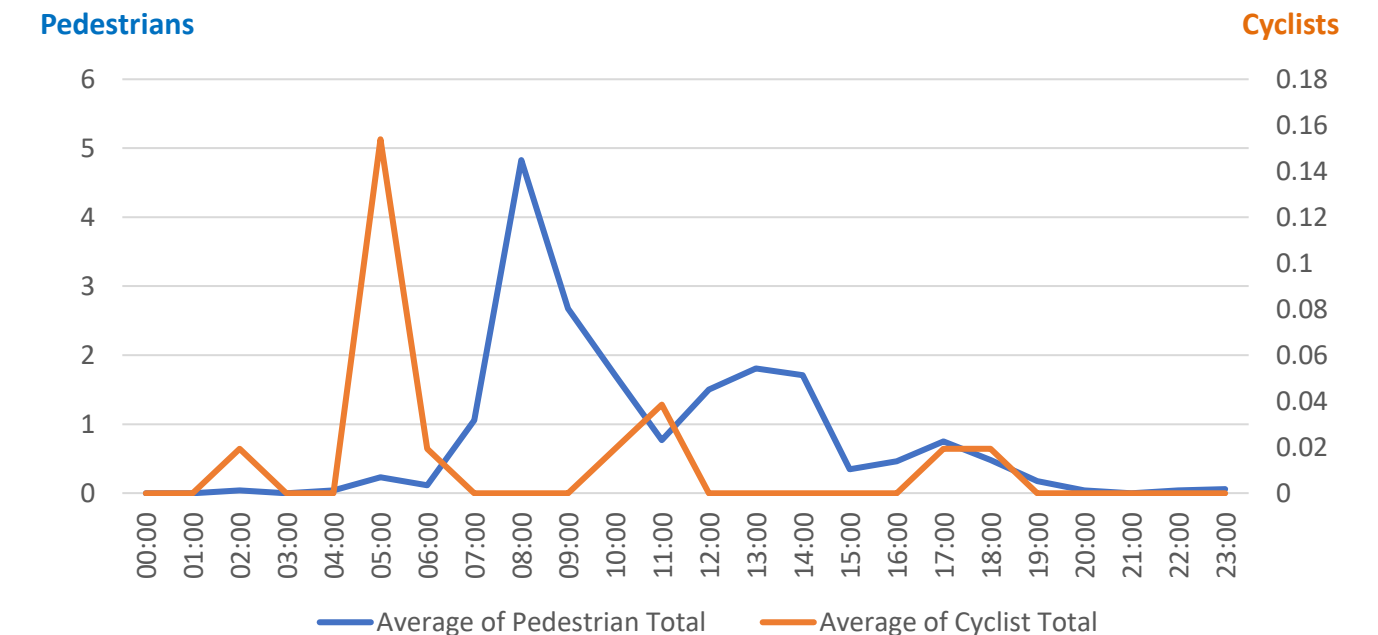
Hourly Average Counts – Baseline Data

Movement Around the Pier (Wapping High Street)



- During non-trial days, on Saturdays and Sundays, hourly average pedestrian and cyclist counts on Wapping High Street start increasing from 04:00 onwards and peak at 14:00 (5 cyclists) and 15:00 (105 pedestrians) before decreasing again.
- Hourly average car counts peak at 13:00 (37) and 18:00 (51), while van counts peak at 11:00 (4).
- The DHL river freight trial was not operational and did not attribute any counts to this data.

Movement Onto and Off the Pier (Wapping Pier)



- On weekends, hourly average pedestrian counts on Wapping Pier peak at 08:00 (5) and rise at 13:00 (2) again. Cyclist counts are very low and rise at 05:00 (0.15).
- The DHL river freight trial was not operational and did not attribute any counts to this data.

River Freight Trial Impact Analysis: Key Findings

The impact analysis shows that there has been a minimum impact of DHL’s river freight trial on Wapping Pier’s usage. The river freight trial’s operations likely only attributed 2 to 4 counts (1 to 2 trips) to the pedestrian levels between 08:00 and 09:00 to pick up parcels from Wapping Pier and load them onto their EV on Wapping High Street. The DHL electric van carrying out the last-mile deliveries only accounted for 1 to 2 van counts (arrival and departure) between 08:00 and 09:00 on Wapping High Street.

	WAPPING HIGH STREET (AROUND PIER)		WAPPING PIER	
	Mondays to Fridays (08:00 – 09:00)	Weekends (08:00 – 09:00)	Mondays to Fridays (08:00 – 09:00)	Weekends (08:00 – 09:00)
Pedestrians				
Counts	from 63 to 45 [decrease]	from 21 to 39 [increase]	from 8 to 4 [decrease]	from 5 to 3 [decrease]
DHL Trial Contribution	2 to 4 counts	0 counts	2 to 4 counts	0 counts
Vans				
Counts	from 3 to 5 [increase]	from 2 to 3 [increase]	-	-
DHL Trial Contribution	1 to 2 counts	0 counts	-	-

Benefits of DHL’s River Freight Trial

The riverboat is a fast, efficient and reliable way of utilising a currently untapped access route into London and it is one of many initiatives in which DHL are investing on their way to zero emissions in 2050. This service is the latest addition to [GoGreen](#), DHL’s group-wide environmental protection program. GoGreen is the cornerstone of DHL’s sustainability work and focuses on reducing and avoiding emissions of greenhouse gases and local air pollutants.

DHL has proven the effectiveness of combining land and waterways through its established canal delivery network in Amsterdam and Venice, but the service in London represents its first high speed service.

Read more about the DHL river freight trial [here](#).

Wapping Pier

Opportunities for Increased River Freight

Opportunities for Increased River Freight

Analysis: Movement Around the Pier (Wapping High Street)

The days and times below show when Wapping High Street near the pier is underutilised, which poses an opportunity for more river freight operations during these days and times:

Days with lowest road user levels:

- Active Travel Counts: Monday to Thursday
- Motor Vehicle Counts: Friday (based on overlap below)
 - *Cars: Monday to Friday*
 - *All Other Vehicles: Friday to Sunday*

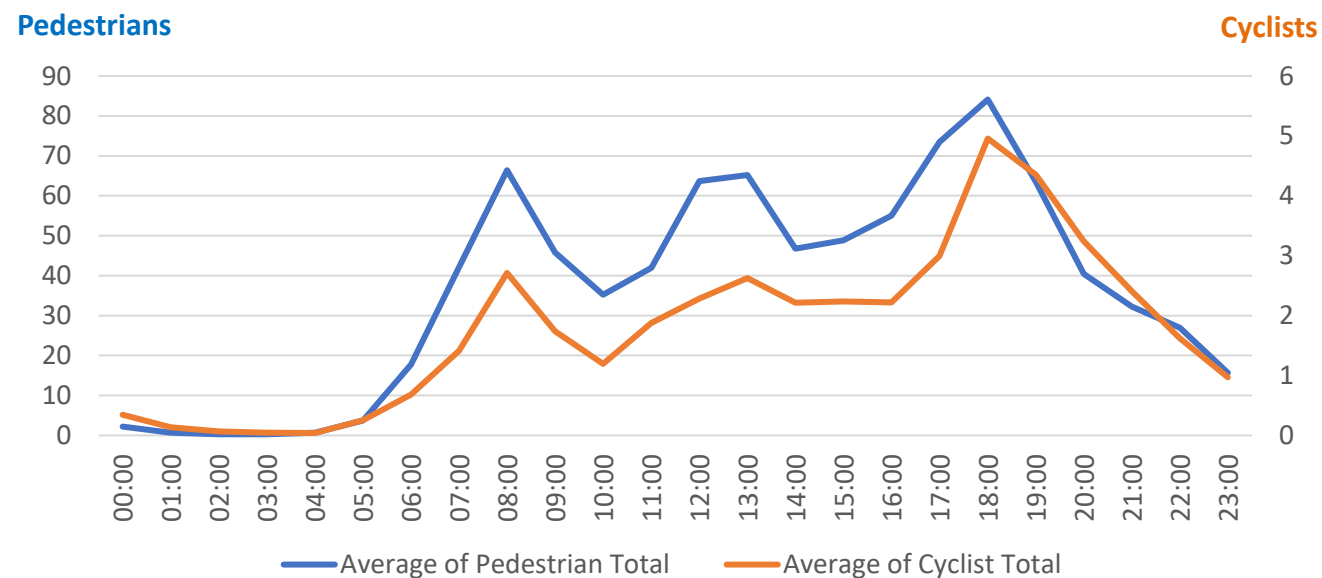
Hours with lowest road user levels on these days (see graphs below):

- Active Travel Counts: 21:00 – 06:00
- Motor Vehicle Counts: 23:00 – 06:00 (based on overlap below)
 - *Cars: 23:00 – 07:00*
 - *All Other Vehicles: especially 20:00 – 06:00 (less than 10 counts all day)*

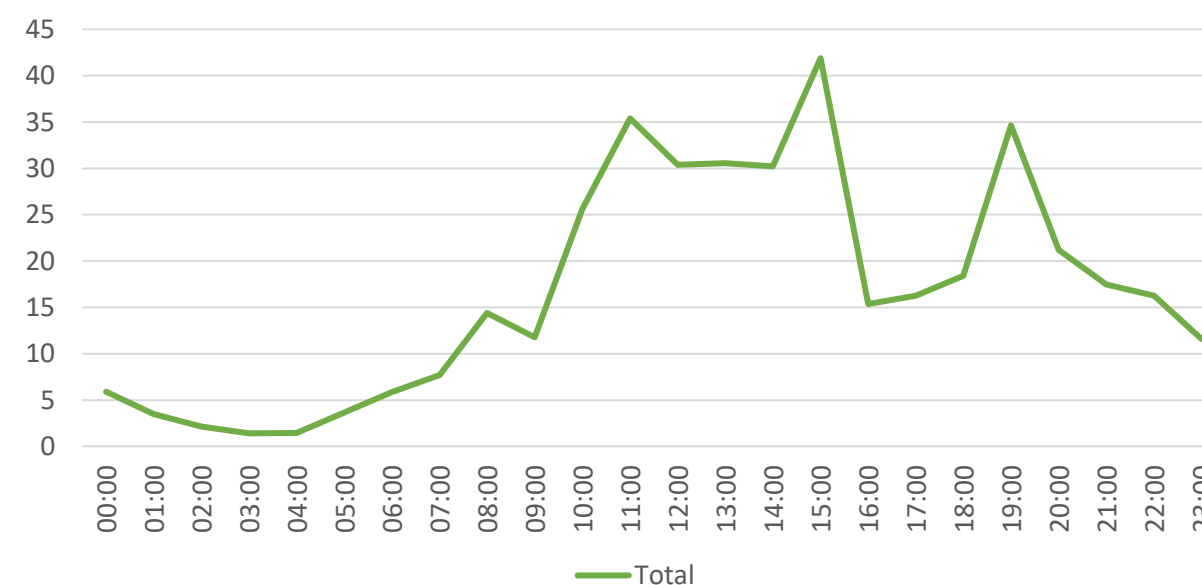
Possible reasons for lowest user levels:

- Pedestrians and cyclists mostly passing Wapping High Street at the end of the week and weekends during the afternoon, rather than during weekdays to commute to work
- More car traffic in the afternoon and ride hailing activities on evenings on the weekend, but more van deliveries and other motor vehicle movements during the work week (business hours)

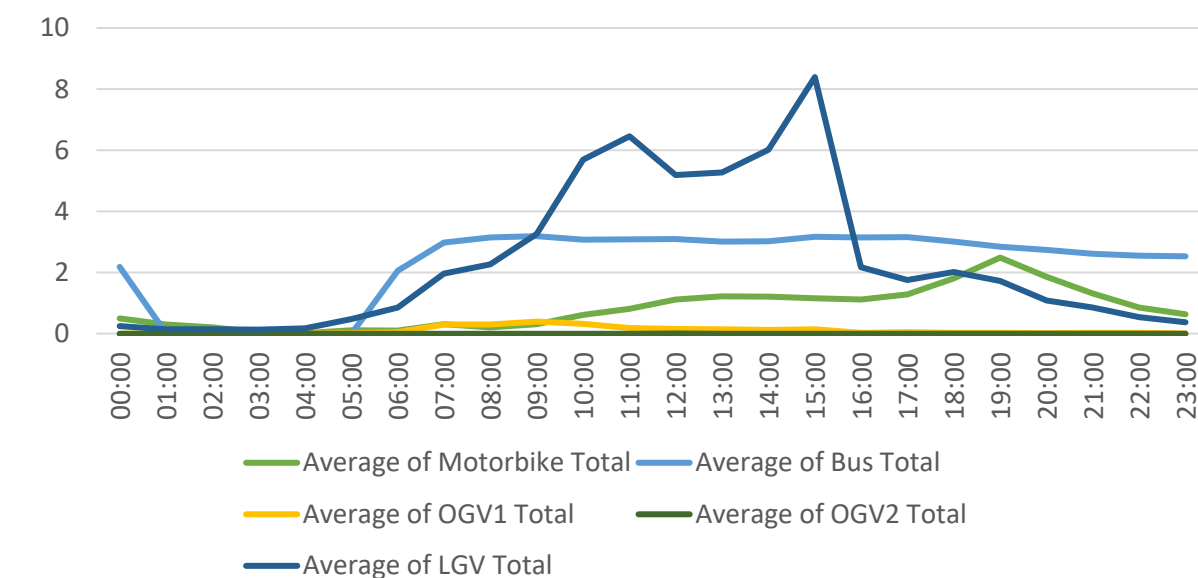
Hourly Average - Active Travel (Pedestrians & Cyclists): Monday to Thursday



Hourly Average - Cars: Monday to Friday



Hourly Average - All Other Vehicles: Friday to Sunday



Opportunities for Increased River Freight

Analysis: Movement Onto & From the Pier

The days and times below show when Wapping Pier is underutilised, which poses an opportunity for more river freight operations during these days and times:

Days with lowest pedestrian and cyclist levels:

- Friday to Sunday
- However, very low counts throughout: less than 5 pedestrians and 1 cyclist on average per day

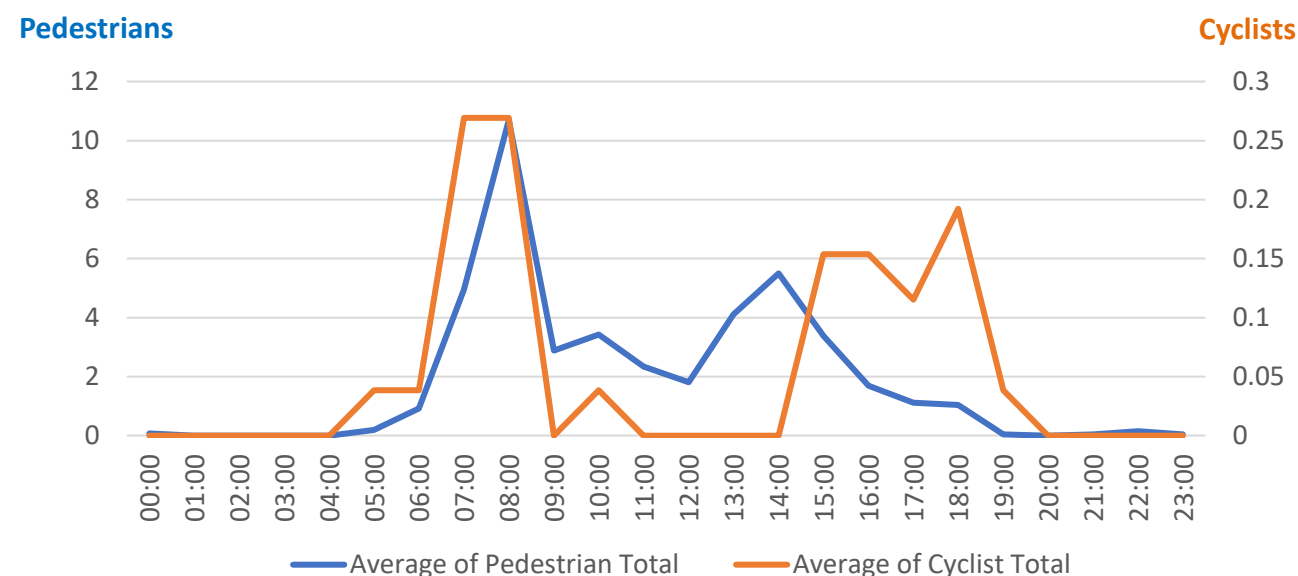
Hours with lowest pedestrian and cyclist levels on these days (see graphs below):

- 19:00 – 04:00 (based on overlap below)
 - *Friday: 19:00 – 04:00*
 - *Saturday: 19:00 – 06:00*
 - *Sunday: 19:00 – 04:00*

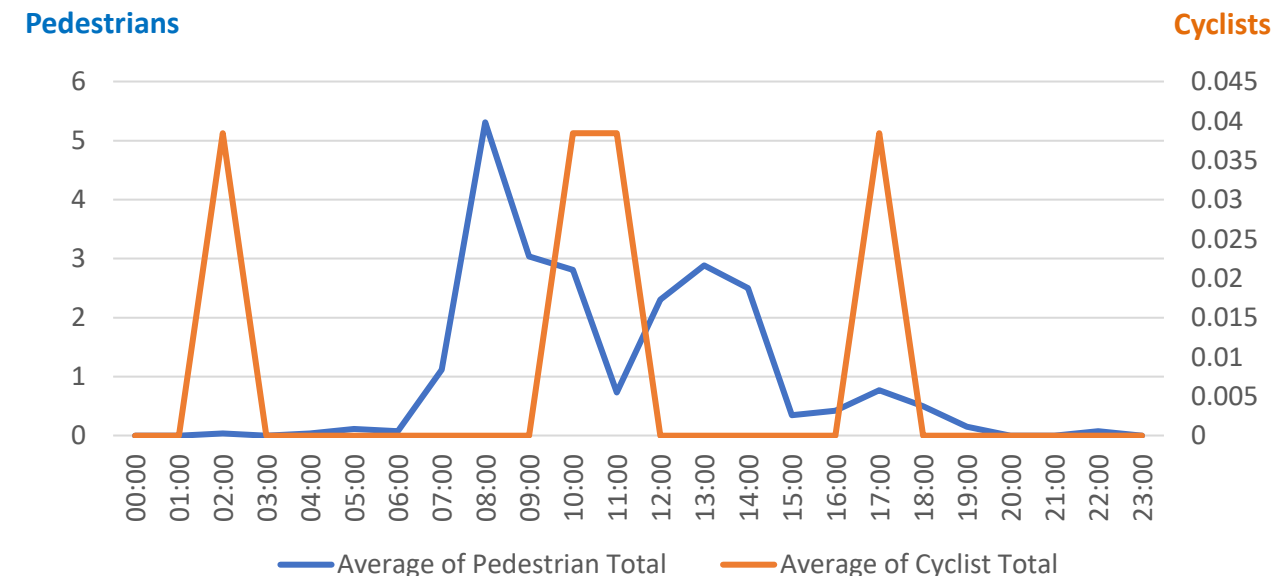
Possible reasons for lowest user levels:

- This is a private pier with no passenger services and is accessible to mainly pedestrians via a walkway.
- The pier is likely mostly used by its owner, Silver Fleet, during the work week. Most movements occur during the early morning and regular business hours.

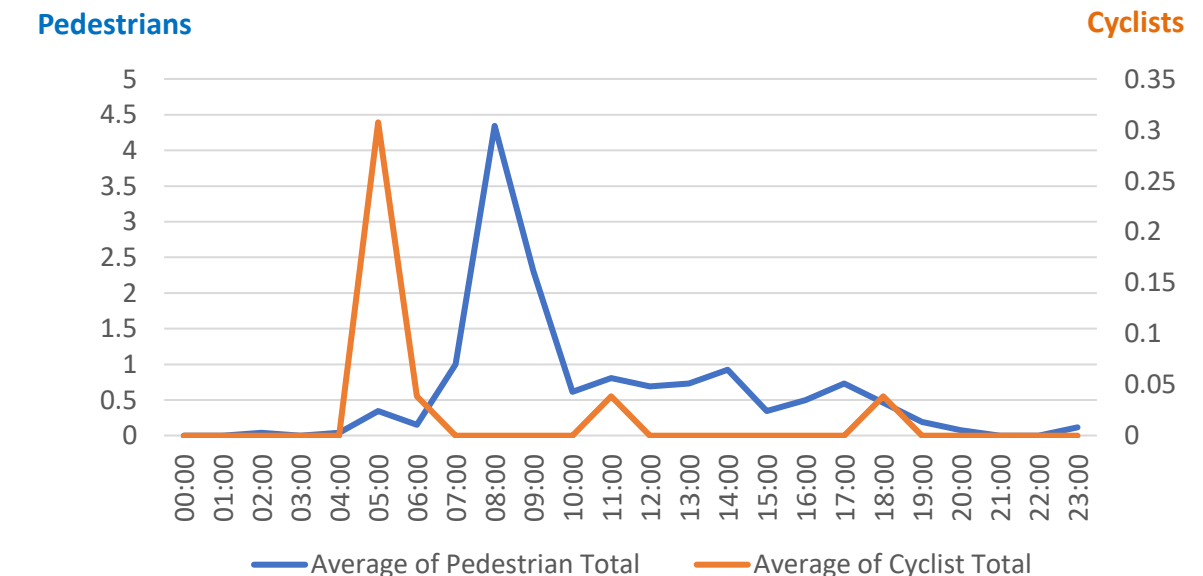
Hourly Average - Active Travel (Pedestrians & Cyclists): Friday



Hourly Average - Active Travel (Pedestrians & Cyclists): Saturday



Hourly Average - Active Travel (Pedestrians & Cyclists): Sunday



Opportunities for Increased River Freight

Pier Usage: Impact on River Freight Trial Days

- The data presented in this report's "River Freight Trial Impact Analysis" section shows that the DHL river freight trial operations on Wapping Pier and Wapping High Street had a minimal impact on the pier's usual functionality.
- On days and times when the trial's vessel arrived at the pier to unload goods (Monday to Friday, around 08:30 – 09:00), there was often only a very small increase in active travel and motor vehicle counts.
- The river freight trial's operations only attributed around 2 to 4 counts (1 to 2 trips) to the pedestrian levels between 08:00 and 09:00 to pick up parcels from Wapping Pier and load them onto their van on Wapping High Street. The DHL electric van carrying out the last-mile deliveries only accounted for around 1 to 2 van counts (arrival and departure) between 08:00 and 09:00 on Wapping High Street.

Possible reasons for this:

- Parcels are pre-sorted on the river vessel and then handed in around 5 to 10 bags to the DHL electric van driver, who usually manually carries these bags from Wapping Pier to Wapping High Street where their EV is parked. This is often undertaken in only 1 to 2 trips, which explains the minimal overall impact.

Testimonials from the DHL River Freight Trial

"This project opens up the movement of small parcels as a new and potentially substantial area of river use. The shipment of bulkier freight by river already takes more than 200,000 HGVs off the capital's roads every year. A river boat and emission free last mile delivery is a great innovation and the ideal combination for the city's next evolution."

- Robin Mortimer, Chief Executive, Port of London Authority (PLA)



Opportunities for Increased River Freight

Wapping Pier

Pedestrian and cyclist counts at Wapping Pier are low all week at all times, especially from Fridays to Sundays between 19:00 and 04:00 overnight. This current underutilisation offers a viable opportunity for additional river freight operations.

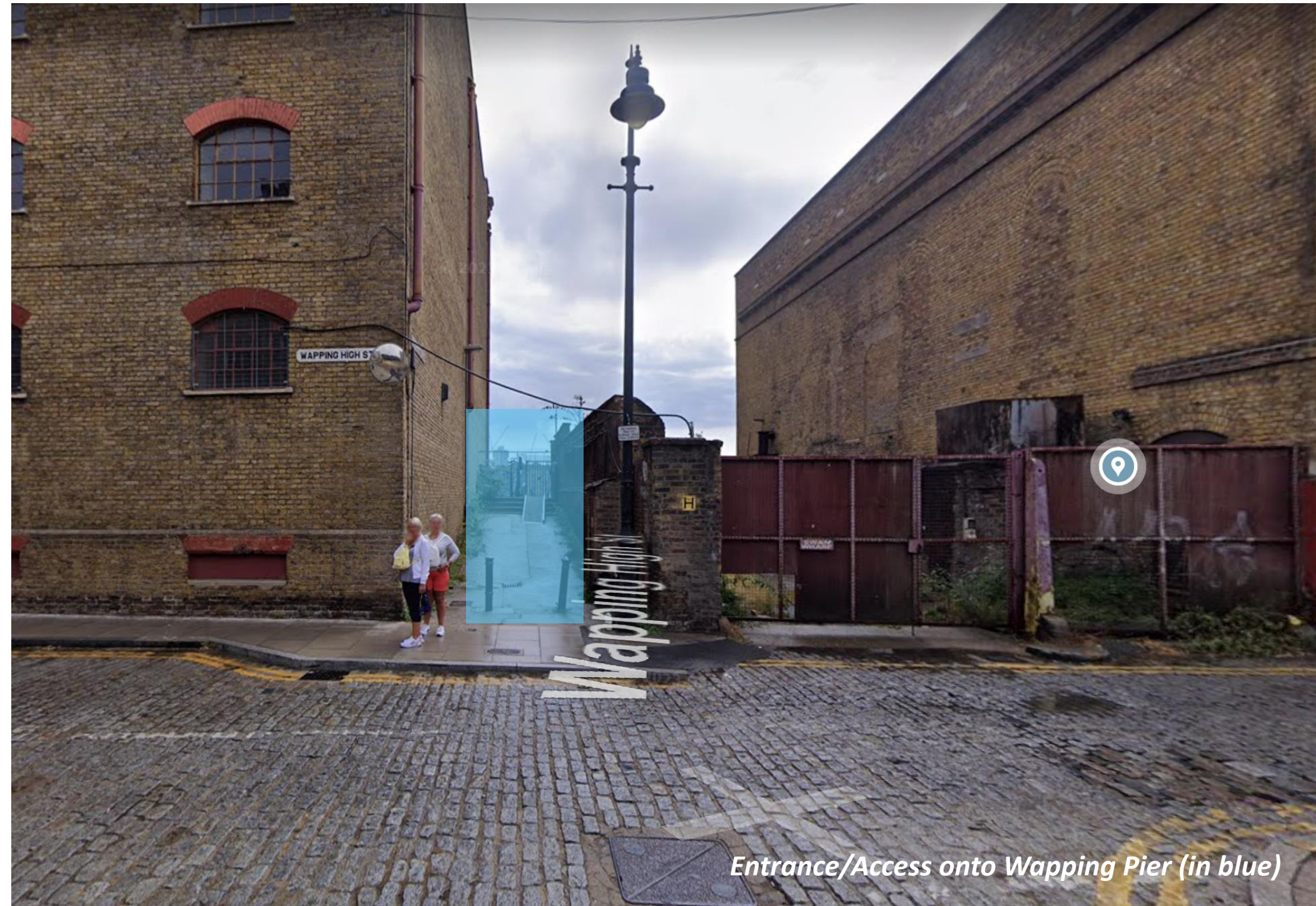
There is an opportunity to drop off and/or pick up goods via the river on any days at mostly any times to/from low-emission couriers on land (see timeslots below). River freight operations have been proven to be more time efficient and environmentally friendlier than polluting van deliveries.

Timeslots when river freight operations could take place:

- All week at all times
- Mostly Fridays to Sundays: 19:00 – 04:00 (overnight)

Currently, Wapping Pier is a private pier, with limited access to external stakeholders. DHL is accessing the pier with the owner's permission. The pier owner could give other selected couriers access onto Wapping Pier by providing access codes, for example, to facilitate more river freight operations from this location.

Overnight and early morning delivery time restrictions, as well as suitable loading / unloading areas for onward deliveries on land, would need to be discussed with the pier owner, landowner, local authority and other relevant parties.



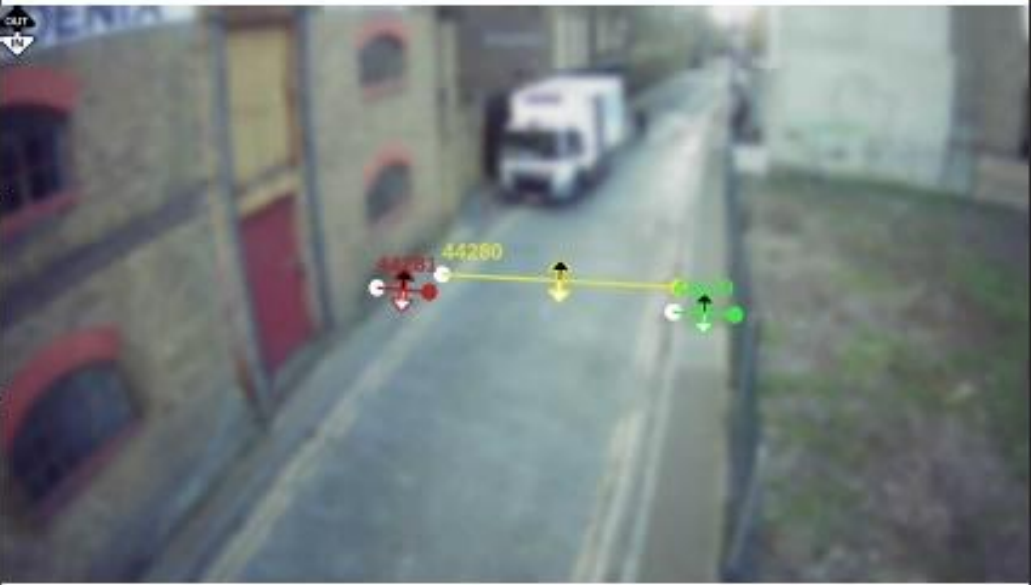

Entrance/Access onto Wapping Pier (in blue)

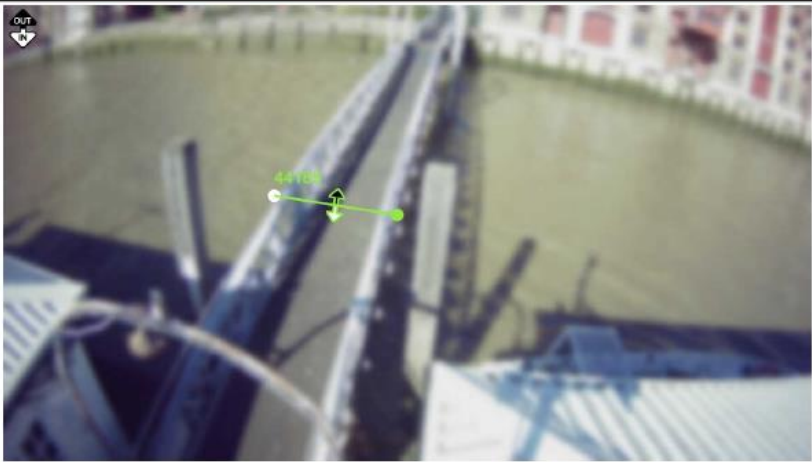
Wapping Pier

Data Accuracy & Precision

Data Accuracy and Precision

The following table provides a summary of the sensor accuracy associated with the Wapping Pier counts:

Sensor	Countline	Courtline Name	Result	Total accuracy (%)	Car Accuracy (%)	Taxi Accuracy (%)	LGV Accuracy (%)	OGV Accuracy (%)	BUS Accuracy (%)	Motorbike Accuracy (%)	Bicycle Accuracy (%)	Pedestrian Accuracy (%)	Comments	Sensor Image
30	44281	S30_WappingHighStr_path_LHS_crp001	PASS	100.00								100.00		
30	44279	S30_WappingHighSt_path_RHS_crp001	PASS	100.00								100.00		
30	44280	S30_WappingHighSt_road_crp001	PASS	100.00	100.00	100.00	100.00		100.00	100.00	100.00	100.00		
31	44283	S31_WappingHighSt_road_crp001	PASS	100.00	100.00	100.00	100.00		100.00	100.00		100.00		
31	44282	S31_WappingHighSt_path_LHS_crp001	PASS	100.00								100.00		
31	44284	S31_WappingHighSt_path_RHS_crp001	PASS	100.00								100.00		

Sensor	Countline	Countline Name	Result	Total accuracy (%)	Car Accuracy (%)	Taxi Accuracy (%)	LGV Accuracy (%)	OGV Accuracy (%)	BUS Accuracy (%)	Motorbike Accuracy (%)	Bicycle Accuracy (%)	Pedestrian Accuracy (%)	Comments	Sensor Image
29	44185	S29_WappingPier_path_crp001	PASS	100.00								100.00		

Data Collection & Anonymisation

VivaCity sensors used as part of this project have been installed to analyse traffic, cyclist and pedestrian counts in addition. Each frame of video is deleted immediately after processing and only the anonymous traffic data is extracted from the video, transmitted and stored. All data received is completely anonymised.

Data and Ownership

All Intellectual Property associated with this data shall remain the property of Westminster City Council (Cross River Partnership) during and after the lifetime of the project.

Further Information

Please contact CRP Senior Programme Manager Fiona Coull (fionacoull@crossriverpartnership.org) or CRP Project Manager Isidora Rivera Vollmer (isidorariveravollmer@crossriverpartnership.org). Visit our Clean Air Logistics for London (CALL) project page [here](#). Additionally, you can find out more about CRP on our webpage: www.crossriverpartnership.org.