





Anyone who knows Dundee knows that the city's physical geography doesn't easily lend itself to leisurely cycling – too many steep hills! But that makes the city's cyclists not just a hardy and fit bunch, but a committed

and dedicated group as well.

That commitment and dedication is mirrored by Dundee City Council in its attempts to ensure that the infrastructure cyclists need continues to develop and grow.

So there is a lot of useful information in this, the first ever Bike Life assessment of cycling in Dundee. It uncovers a broad spectrum of opinions, data and evidence that shines a light on how far we've come, where we are now and importantly where people think we should be going as a cycling city.

One thing that really caught my eye was the fact that nearly a third of people said they didn't currently cycle, but would like to. When you take that figure in the context of wider research which has consistently demonstrated that people from lower socio-economic groups, women and people with disabilities are less likely to be cyclists, it not only presents us with a challenge but also an idea of who we need to be starting conversations with to find out what the barriers are to getting them on a bike in the first place.

Dundee already has a lot of cyclists, many of whom know what a good place it is to get around on two wheels, but we know that there are still some hurdles to get over before we can increase that figure. One of those, the creation of clear, well defined routes for cyclists is an issue we have had in our sights as part of keeping a multi-modal Dundee moving.

I was pleased to see that our level of innovation and ambition are welcomed in the report, particularly along the banks of the Tay. Away from the waterfront the installation of crossing points to help cyclists and pedestrians get over the Kingsway is an important part of our strategic approach to improving cycling infrastructure.

This type of detailed opinion from people in Dundee who are already keen cyclists and those who might get on their bikes gives the council and its partners the level of detail we need to be able to plan investment and future services, not just to meet the needs of the present but to increase active travel options in the future.

That includes plans for a new active travel hub at the waterfront and a public bike hire scheme.

We have come a long way in terms of cycling in Dundee, but we know that the journey isn't over yet, and this, the first Bike Life report on Dundee will help us to get there.

Cllr Mark Flynn, Depute Convenor of Dundee City Council's City Development Committee

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### **Introducing Bike Life**

Bike Life is the biggest assessment of cycling in urban areas in the UK and Ireland. It is delivered by Sustrans in collaboration with 17 cities and urban areas. Each city\* reports on progress towards making cycling an attractive and everyday means of travel.

Bike Life reports every two years. In 2015 and 2017 seven cities published reports. Glasgow, Perth and Stirling followed and published their first reports in 2018.

Fourteen areas are participating in Bike Life in 2019. This includes our first London borough, Tower Hamlets, and our first city outside of the UK, Dublin Metropolitan Area.

This is the first report from Dundee, produced in partnership with Dundee City Council. The information in this report comes from local cycling data, modelling and an independent survey of 1,339 residents aged 16 or above in Dundee.\*\* The survey was conducted by social research organisation NatCen and is representative of Dundee residents, not just those who cycle.

More details on all Bike Life reports can be found at <a href="https://www.sustrans.org.uk/bike-life">www.sustrans.org.uk/bike-life</a>

Our thanks to the people of Dundee who took part in the survey and shared their stories with us.



<sup>\*</sup>City is used as a shorthand for Bike Life cities, city regions and boroughs.

<sup>\*\*</sup>Survey conducted April-July 2019.

# Report summary

### Dundee

Population\*

148,710



### Everyone benefits when more people cycle

Every day, cycling in Dundee takes up to

# 2,400 cars off the road

Based on cycling by residents that live in a household with a car. Does not include leisure cycling trips.

Every year, cycling:

- prevents 39 serious long-term health conditions
- saves 1,400 tonnes of greenhouse gas emissions
- creates **£8.1 million** in economic benefit for individuals and the city.

There is significant appetite in Dundee for cycling.

### **11**%

of residents cycle at least once a week

### 31%

don't cycle but would like to

### Safety concerns stop cycling being a genuine travel choice for many residents

Many residents are less likely to cycle regularly, for example women and disabled people.

However, all groups want cycling safety to be improved.

Proportion of residents who cycle at least once a week

5% of women

17% of men

3% of disabled people

14% of non-disabled people

Proportion of residents who think cycle safety needs improving

71% of women

**65%** of men

68% of disabled people

69% of non-disabled people

### To help residents cycle more we need better cycling infrastructure

### 79%

think that more cycle tracks along roads, physically separated from traffic and pedestrians, would be useful to help them cycle more.
Currently **0.1 miles** exist.

### 72%

support building more of these tracks, even when this would mean less room for other road traffic



### People from socio-economic groups D and E are most likely to suffer the impacts of higher traffic levels,\*\* yet are least likely to own a car

Proportion of residents from socio-economic groups AB or DE who have a car or van in their household

86% of people from groups AB

41% of people from groups DE

Not having a car can increase the risk of social exclusion, debt and transport poverty.<sup>†</sup> 80%

of residents from socio-economic groups D and E never cycle, but

32%

would like to start

This is equal to

13,000 adults

Cycling as a mode of transport is ideally suited to urban life.

Cities that are designed for cycling can help many residents access everyday services and reduce social and economic isolation.

Socio-economic group is a classification based on occupation maintained by the Market Research Society. Groups A and B are professional and managerial. Groups D and E are semi-skilled and unskilled manual occupations and people not in employment.

# Dundee residents believe improving their streets for cycling and walking would make their area a better place to live, work or visit

### 57%

think more cycling would make their area a better place to live and work

#### 59%

think fewer motor vehicles on our streets would be useful to help them cycle more

### 77%

think space should be increased for people socialising, cycling and walking on their local high street

### 62%

think streets outside local schools should be closed to cars during drop off and pick up times

### 61%

think speed limits should be reduced on local roads



Residents would like to see more government spending on public transport, cycling and walking

66% Public transport

**59%** Cycling

58% Walking

34% Driving

#### **Fatima**

I learned how to build my confidence in riding a bike. This felt amazing; I wanted to teach other women who never had the chance to learn, how to ride a bike and feel that sense of freedom.





### Dundee residents cycle 1.3 times around the world every day

57%



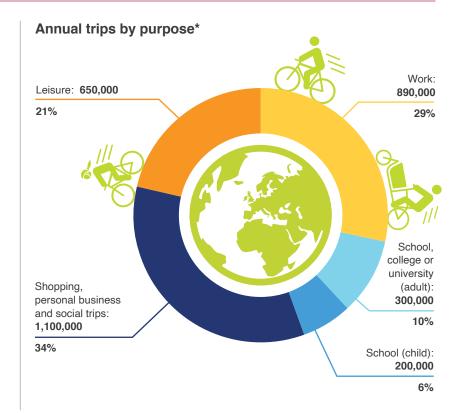
agree that more cycling would make Dundee a better place to live and work

## 3.1 million trips

made by cycle in Dundee in the past year, which adds up to

# 11.9 million miles

= **33,000 miles** a day



### Cycling keeps Dundee moving

Studies show cycling frees up road space in comparison to driving\*\*. This helps to keep Dundee moving for all road users.

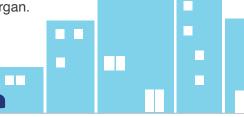
## 2,400 return cycle trips

are made daily in Dundee by people that could have used a car

If these cars were all in a traffic jam it would tail back

### 7 miles

equivalent to the distance from Dundee to Longforgan.

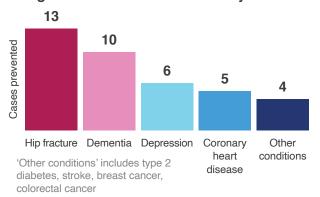


<sup>\*</sup>Leisure trips include adults and children. Education trips are shown separately for adults and children. All other trips are just adults.

\*\*Litman, 2017. Evaluating Transportation Land Use Impacts. Based upon Eric Bruun and Vuchic, 1995. The Time-Area Concept.

### Cycling unlocks health benefits for everyone

## Cycling in Dundee prevents 39 serious long-term health conditions each year



Saving the NHS in Dundee

## £250,000 per year



Based on Sport England MOVES tool which shows the return on investment for health of sport and physical activity.

In Dundee the physical activity benefits of cycling

# prevent 5 early deaths annually

which is valued at

### £16 million<sup>†</sup>

More people cycling improves air quality:

# 2,900 kg of NO<sub>x</sub>

## 386 kg of particulates

 $(PM_{10} \text{ and } PM_{2.5})$  saved annually.

In Dundee **69 early adult deaths** occur each year where long-term exposure to air pollution (PM<sub>2.5</sub>) is deemed to be a contributory factor.

Based upon Public Health England, 2014. Estimating Local Mortality Burdens associated with Particulate Air Pollution. Adults = 25 years+. (Covers all of the UK)

### Cycling helps reduce the impact of our climate crisis

### **1,400 tonnes**

of greenhouse gas emissions (carbon dioxide, methane and nitrous oxide) saved annually, equivalent to the carbon footprint of

# 9,200 people taking flights



from Dundee to London

Transport now accounts for 37% of Scotland's greenhouse gas emissions, of which the main sources are petrol and diesel cars.

Overall Scotland's emissions between 1990 and 2017 fell by 47%; however transport emissions increased by 0.4%.

Scottish Greenhouse Gas Emissions 2017 report. Scottish Government.

### Cycling benefits residents and the local economy in Dundee

95p

net benefit for individuals and society from each mile cycled instead of driven

These figures are based upon monetising the costs and benefits of driving and cycling. This includes travel time, vehicle operating costs, medical costs and work absenteeism, congestion, infrastructure, local air quality, noise, greenhouse gases and taxation.

In total, this adds up to:

### £4.5 million

annually from people with a car choosing to cycle for transport, or

### £8.1 million

annually from all trips cycled



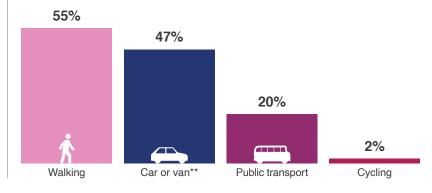


### Most people living in Dundee do not currently cycle

Whilst many people cycle in Dundee, participation is much lower than for other modes of travel.

When cities are designed to make cycling more attractive than other forms of transport, participation can be high. For example 29% of residents cycle five or more days a week in Greater Cambridge.\*

Residents who travel by the following modes five or more days a week in Dundee



87%

of residents walk at least once a week

11%

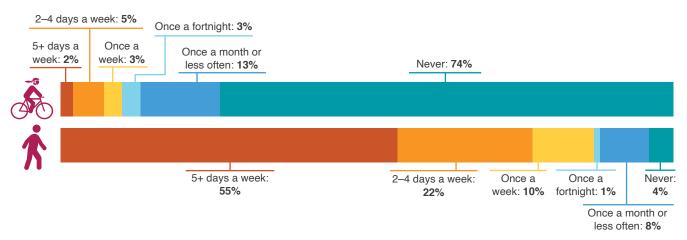
of residents cycle at least once a week

While it's clear that improvements need to be made to the walking environment, there is at least a network of protected space – pavements.

In comparison, it is only possible to cycle to most everyday destinations if you are happy to share road space with motor vehicles.



### How often are residents cycling and walking?



<sup>\*</sup>Bike Life Greater Cambridge 2019.

<sup>\*\*</sup>Travelling as driver or passenger.

### How inclusive is cycling?

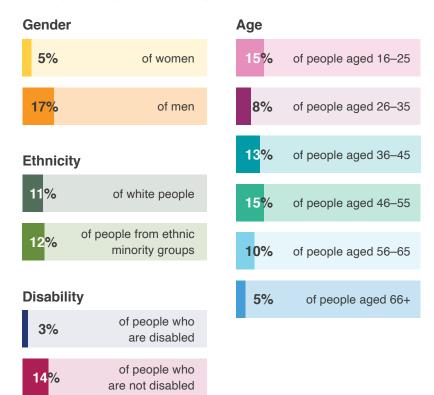
In Dundee cycling participation of different demographic groups is not equal.

Barriers to cycling can be more pronounced for different demographic groups, however cities with high cycling rates show this is not always the case.

55% of all cycling trips in the Netherlands are made by women. Furthermore people over 65 make 24% of their trips by cycle, higher than the percentage reported for any other age group over the age of 26.

Pucher and Buehler, 2008. Making Cycling Irresistible Transport Reviews, Vol. 28.

# Proportion of Dundee residents in different demographic groups who cycle at least once a week





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I always wanted to ride a bike but growing up in a British Asian, conservative family that was not an option. It was thought not appropriate for women to cycle.

My first opportunity arose when Dundee International Women's Centre (DIWC) organised a cycling expedition. I told the leader "I cannot ride a bike". She smiled and said "you have two weeks to learn".

I learned how to build my confidence in riding a bike. This felt amazing; I wanted to teach other women who never had the chance to learn, how to ride a bike and feel that sense of freedom.

DIWC organised a programme for women to learn how to cycle as an adult and gain confidence. Women are taking this as a recreational activity with their families or are cycling to work. However, we still have some work to do to break that barrier of cycling being a taboo activity.





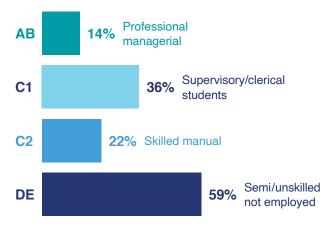
### Mobility is about accessing basic, everyday needs that help people live well

Mobility enables people to access employment, education, fresh food, green space and healthcare. Mobility also enables people to see family, participate in their community and to have a voice in society.

And yet, mobility for many people in the UK is neither equal nor inclusive.

# People who do not have a car can find it challenging to reach everyday services in areas where travel alternatives are lacking

Proportion of residents from each socio-economic group\* who do not have a car or van in their household



**32**% of the population of Dundee are from the socio-economic groups D and E. That's around **48,000** people in total.

Groups D and E are semi-skilled and unskilled manual occupations, homemakers and people not in employment.

Many disadvantaged neighbourhoods have fewer local amenities and poorer public transport provision.\*\* This combination means that everyday services may be harder to reach. Cycling could help accessibility.

### Many residents from socio-economic groups D and E would like to start cycling

32%

of residents from groups D and E in Dundee would like to start cycling 8%

of residents from groups
D and E in Dundee currently
cycle at least once a week

In comparison, 14% of residents from groups A and B cycle at least once a week

<sup>\*</sup>Socio-economic group is a classification based on occupation maintained by the Market Research Society.

<sup>\*\*</sup>Glasgow Centre for Population Health, 2013. The built environment and health: an evidence review.

### However, many barriers prevent people from these groups cycling

Reasons why Dundee residents from socio-economic groups D and E do not cycle or why they cycle less often

33%	31%	25%	17%
Concerned about safety	Not confident cycling	Cost of a suitable	Not for people like me

Proportion of residents from socio-economic groups who think cycling is not for people like them

AB 13%

DE 17%

Being a 'cyclist' can be associated with a certain type of person and characteristics.

### Cycling has potential to reduce social and economic exclusion

Cycling could help many residents access employment, healthcare and everyday services, but only if we make cycling attractive, safe and easy for everyone.

At a relaxed pace you can cycle over 4 miles in 25 minutes. So, cycling can be ideally suited to urban life, especially as an option for people who do not own a car and live further away from public transport.

# 25-minute cycling distance from Dundee City Square

Cycling would enable **130,000** people to cycle from their home to Dundee City Square in less than 25 minutes, including **53,000** people from areas that are among the 20% most deprived in Scotland.



#### **Charlie Steele**

Before trying the e-trike I hadn't been on a bike for forty years. I didn't think it was for me, I have Chronic Obstructive Pulmonary Disease and mobility issues and use a walker to get around. My balance isn't good but that doesn't matter on the trike and the electric boost is really helpful. I was shocked the first time I got going. Then I burst out laughing, it was so easy!

After some gentle activity, I felt much happier. I was like a kid learning to ride for the first time. I felt so much freedom. Re-Discover Dundee has given me chance to be sociable through the led rides.

Loneliness is a problem for people and this is something to look forward to every week. I have made friends and I love it. I think Dundee needs a hub in the centre of town – a place where we could borrow a trike for a few hours.





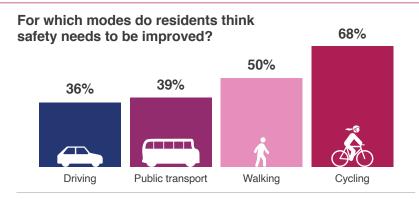
39%

think Dundee is a good place to cycle. But many barriers to cycling exist.

# Reasons why some residents do not cycle or why they cycle less often

39%	27%	26%
Concerned about safety	Not confident cycling	Poor weather

### Safety is the single largest barrier to more people cycling



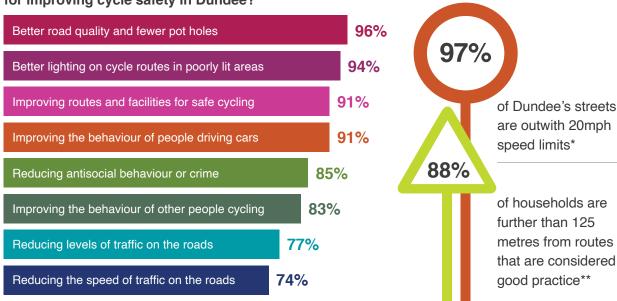
31%

of residents think cycling safety in Dundee is good

20%

think children's cycling safety in Dundee is good

# Which issues do residents think are important for improving cycle safety in Dundee?



<sup>\*</sup>Excludes motorways

<sup>\*\*</sup>These are defined as routes that are traffic-free and away from roads, and cycle tracks along roads physically protected from traffic and pedestrians.

### Secure cycle storage is important at home and when out and about

### Reported cycle thefts



There were **127** reported cycle thefts in Dundee in 2018/19.

For every **413** people who own an adult cycle in Dundee, there was 1 reported cycle theft in the past year.

There is a public cycle parking space for every **47** people who cycle in Dundee.

### 16%

of residents think the security of public cycle parking is good.

Security can also be a risk at home, especially in flats where storage inside the property can be harder.

Please note survey respondents could pick multiple options

22%	22%	20%	15%	14%	13%
Lack of storage or facilities at home or work	Too hilly here	Cost of a suitable cycle	Not for people like me	Children, passengers or too much to carry	Living too far away from my destination

### PC Lee Tulleth and PC Lydia Thatcher



We are part of the Maryfield Community Policing Team, Dundee, and since January 2019 we now carry out the majority of our work on e-bikes. Cycling allows us to be more approachable as we carry out our duties and has even changed some perceptions of police, with some seeing us as role models to children in the local community.

Whilst cycling around the city we have found the city lacks safe cycle lanes. A more consistent cycle lane system on the roads within the city would be hugely beneficial.

As part of our community role we also support Bikeability training to local schools and community groups. During a recent course it became clear how few children have access to a bike. We were able to source bikes from local community resources to ensure all participants could be involved on a bike however this isn't a long term solution. Recycled bikes could be a more efficient option, and would help include more of the community in using bikes to get around.

Getting kids on bikes and learning to ride bikes safely is hugely important to us – after all the children not cycling at the moment will be the adults not cycling in the future.

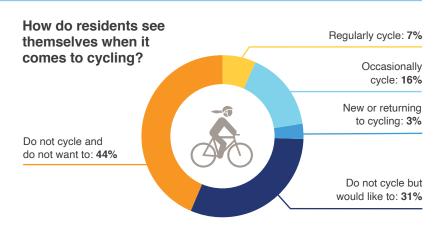




### Many Dundee residents want to cycle

49%

of residents feel that they should cycle more



### Residents want improved cycling infrastructure

What proportion of residents would find infrastructure improvements useful to cycle more?

79%	75%	<b>6</b>	65%
More cycle tracks along roads that are physically protected from traffic and pedestrians	local	cycle routes	Better links with public transport
<b>0.1 miles</b> of cycle tracks physically protected from traffic and pedestrians			There is one cycle parking space at Dundee's railway stations for every
2%			20 passengers
	More cycle tracks along roads that are physically protected from traffic and pedestrians  O.1 miles of cycle tracks physically protected from traffic and pedestrians  er, only	More cycle tracks along roads that are physically protected from traffic and pedestrians  O.1 miles of cycle tracks physically protected from traffic and pedestrians	More cycle tracks along roads that are physically protected from traffic and pedestrians  More signposted local cycle routes along quieter streets  O.1 miles of cycle tracks physically protected from traffic and pedestrians  ver, only

### **72%**

of residents support building more protected on-road cycle tracks, even when this would mean less room for other road traffic. A and B roads have higher levels of traffic so these are where physical separation is most useful for cycling. In total, **41 miles** of these roads exist in Dundee.

### Residents want more support to cycle

## What proportion of residents would find more support useful to cycle more?

57%	55%	39%	26%
Cycling training courses and social rides	Access to an electric cycle	Access to a cargo cycle	Access to adapted c (eg tricycle recumben

42%

of residents have access to an adult pedal cycle

#### **Paul Durrant**

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Until recently I spent half of my working week in Dundee and the other half in London so I really value my cycling commute along Grassy Beach by the river – it's such a beautiful journey. I really like the path, especially now that the section through the Docks has been upgraded.

I have a road bike for pleasure but I commute all year round using my e-bike. Some people think its cheating but it removes the barrier posed by the wind which can be really strong at times coming off the Tay. My e-bike also gives me a nice way to have a break at lunchtime. I can go home, or to the shops or just have a ride along the waterfront. Even with the assist you still feel like you have done some exercise. You actually clock up more cycling miles, and that's one of the things that people don't realise.

The range on the battery is really good – I never have to charge it during the day, although navigating steps can be a bit difficult because it's heavy. It's great that e-bikes are now available under the Cycle to Work Scheme as they have been a bit exclusive due to the high cost of buying one.

I'm hoping that Dundee creates better pathways into the city centre. It's a bit unfriendly to cyclists at the moment which is a real shame as the waterfront route is so pleasant. I think it's also unfair to pedestrians trying to cross the road. We need clear, well-defined routes from the waterfront into the city centre.

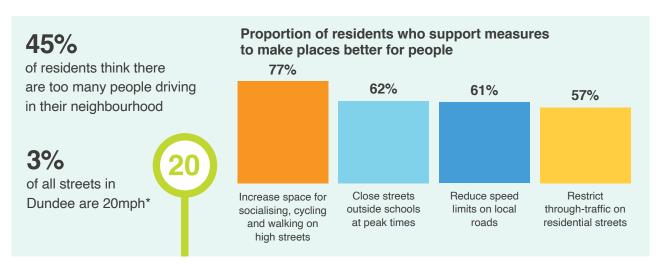


# Residents think 20mph streets and fewer motor vehicles would help increase cycling and make their area a better place

A reported cycle injury occurs once every **800,000 miles** cycled around Dundee. Whilst injuries are relatively rare, sharing the road with motor vehicles is unattractive for most people.

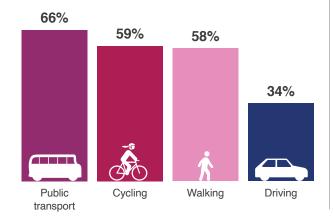
# What proportion of residents would find traffic management measures useful to cycle more?





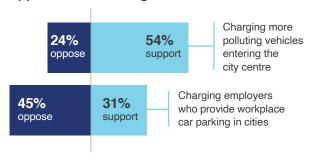
### Residents want more investment in public transport, cycling and walking

# Proportion of residents who would like to see more government spending on different types of transport



Public support exists for introducing policy measures that could be used to help fund cycling, walking and public transport.

## Proportion of residents who support and oppose traffic management measures



Investing in provision for cycling is good value for money, and gives greater returns than many alternatives. For example, Transport for London's 'Walking and Cycling Economic Benefits summary pack' tells us that for every £1 spent on walking and cycling, £13 of benefits are returned to the economy.





The city has benefitted from the transformative work along the waterfront which has created traffic-free cycle routes the length of the river through the city

Dundee has shown ambition and a high level of innovation in devising sustainable solutions to a variety of challenges.

The city has benefitted from the transformative work along the waterfront. This has created traffic-free cycle routes the length of the city, as well as a new train station, civic space and the world's first V&A Museum outside of London in a bespoke, world-class new building.

Since the city adopted its Cycling Strategy in 2016, a number of improved links for cycling have been completed, these include:

### The Docks Way

A path through the secure section of the Dundee Docks was previously off-limits to people walking or wheeling and those on cycles were required to show photo ID to gain access. These security gates have now been removed and the path has been improved – allowing access to everyone.

### **Kingsway Projects**

The A90 Kingsway is a major barrier to active travel in the city and acts as a physical severance between the city and the communities to the north of the A90. A number of projects have taken place to reduce the impact of the Kingsway and make it easier for people cycling, walking and wheeling to cross it. New toucan crossings have been installed which will make it possible for people to safely cross the dual carriageway. This has been done in tandem with a new shared use path next to the Kingsway which allows cycling and walking.

This connects to the Caird Park Link Path where a new route through the park connects with the new Regional Sports Performance Centre. This suite of projects has helped to improve active travel links in an area where they were previously lacking and serves a number of communities who suffer from deprivation as well as improving access to a large area of green space in the city.

### **National Cycle Network improvements**

While undertaking essential flood protection works along National Route 77, Dundee City Council took the opportunity to make active travel improvements at the same time. This has resulted in a shared-use path, which is walled-off from a busy road making for a very pleasant journey alongside the River Tay.

### **School Cycle/Scooter Parking**

Dundee has also taken steps to improve storage of scooters and cycles at a number of primary and secondary schools through the Sustrans School Cycle Parking Programme. This has resulted in improved capacity at 18 different primary schools.

### **Improved Cycle Parking**

The opening of the V&A coincided with the opening of a new bike hangar at the nearby train station with a capacity of 120 bikes. This is protected by CCTV and is free to use, providing a safe and secure option for those travelling to and from the city by bike. The V&A is also well supplied with over 80 cycle parking spaces available to the public in the plaza around it.

#### **National Conferences**

Dundee has hosted two national conferences in 2018/19, including Cycling Scotland's Annual Conference. The events gave Dundee the opportunity to showcase the work that has been completed around the V&A and the waterfront as well as attract some key figures in active travel to the city such as the Active Nation Commissioner Lee Craigie.

### **Bikeability and Active Schools**

Dundee has made great strides in improving school pupils' ability to cycle confidently through the Bikeability Programme. In the past year, over 1,000 school children have taken part in Levels 1 & 2 and there is one school now doing Level 3.

Complementing this, Smarter Choices, Smarter Places funding has been used to increase levels of cycling at city schools.











Dundee is undergoing transformative change at the moment and this will continue into the future with more work on the waterfront and a concerted effort to improve cycling conditions in the city. The newly refreshed Cycling Strategy for the city reaffirms the Council's commitment to increase cycling levels in Dundee. Some of the most exciting projects for the near future are:

### Ride-on e-bike scheme

This exciting scheme will go a long way to tackling the issue of access to bikes and the storage problems associated with that. These e-bikes will be available to members of the public and can be picked up and returned without pre-booking and they will be available in various locations around Dundee. This will be the largest, fully electric bike share scheme in the UK and will provide residents and visitors to the city with an active means of transportation, reducing the need for cars to be used in and around Dundee.

### Low Emission Zone

Dundee City Council is working on implementing a Low Emission Zone (LEZ) in the city. The LEZ will seek to protect public health by improving air quality due to reduced emissions from motor vehicles. This will develop an environment that will help people to make active and sustainable travel choices as well as contributing to the ongoing transformational change in the city. This is anticipated to be rolled out in 2020 in line with Scotland's Programme for Government.

### Active travel hub

Dundee is making use of the development around the waterfront by building an active travel hub in the site adjacent to the V&A museum. This is a prime, waterfront location that sits right next to National Cycle Network Route 77 and very close to Route 1. Once completed the hub will act as an information point for people cycling, walking and wheeling as well as a place to get refreshments, perform some basic maintenance on your bike or simply relax and enjoy the views.

There will also be meeting space as well as a selection of less commonly available bikes such as e-tandems, adapted bikes for those with mobility difficulties and cargo bikes that can be rented by members of the public.

### **Broughty Ferry Active Travel**

Dundee City Council working in partnership with Sustrans and Angus Council are looking to deliver active travel improvements between Broughty Ferry Castle and Monifieth. This project aims to improve active travel links to the city's beachfront as well as improve access to the beach itself, while upgrading the existing paths that are already popular with people cycling, dog walkers and local residents.

### Notes on terminology and methodology:

The attitudinal survey was conducted from April to July 2019 by independent social research organisation NatCen.

The survey is representative of all Dundee residents, not just those who cycle.

Rounding has been used throughout the report.

More information and a detailed methodology are available at <a href="https://www.sustrans.org.uk/bike-life">www.sustrans.org.uk/bike-life</a>

Sustrans is the charity making it easier for people to walk and cycle.

We connect people and places, create liveable neighbourhoods, transform the school run and deliver a happier, healthier commute. Join us on our journey. www.sustrans.org.uk

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