



A City to Share

Cycling strategy for Portsmouth





A once and future cycling city

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Vision



Our vision is that Portsmouth becomes the pre-eminent cycling city of the UK.

A city fit for the future: a healthy, safe, sustainable, prosperous city that people want to live in, to work in and to visit.

A city where we share spaces, co-operate with each other and treat one another with courtesy and respect.

A safer city

People of all ages will feel protected and respected on the roads and safe to travel independently within the city.

Improved health outcomes

People will be healthier for longer with reduced obesity levels and reduced strain on local health services. The number and severity of accidents on the road will be substantially reduced bringing further benefits.

A stronger local economy

Cycling will favour the use of local businesses rather than large out of town centres. Less congestion with increased transport capacity will benefit businesses across the city.

A better environment

A reduction in the volume of traffic will reduce the primary source of air pollution in the city. This will bring further benefits to the health of all and prevent many early deaths. There will also be benefits from the reduced carbon footprint of our low-lying city.

A fairer, more liveable city

A shift in transport away from the dominance of the road infrastructure by the private motor vehicle to cycling and walking will deliver benefits to the whole city, not just to those who cycle.

Introduction



Portsmouth's transport system has evolved to favour the private motor vehicle over all else. This has brought tremendous flexibility and independence to many people. However, the number of cars coming in and out of our city is at an all time high and the road system is under severe strain.

The capacity of the Victorian street layout has been reached and now the problems that come with the private car are starting to outweigh the benefits.

Health

The people of Portsmouth are living ever more sedentary lifestyles. This brings a number of serious problems, which the health system of the city is struggling to deal with. The lack of physical activity is recognised as one of four key health threats to the city. Increasing the use of active travel modes is seen as a key objective by Portsmouth's Director of Public Health.

Growth

In order to grow the city's economy needs more

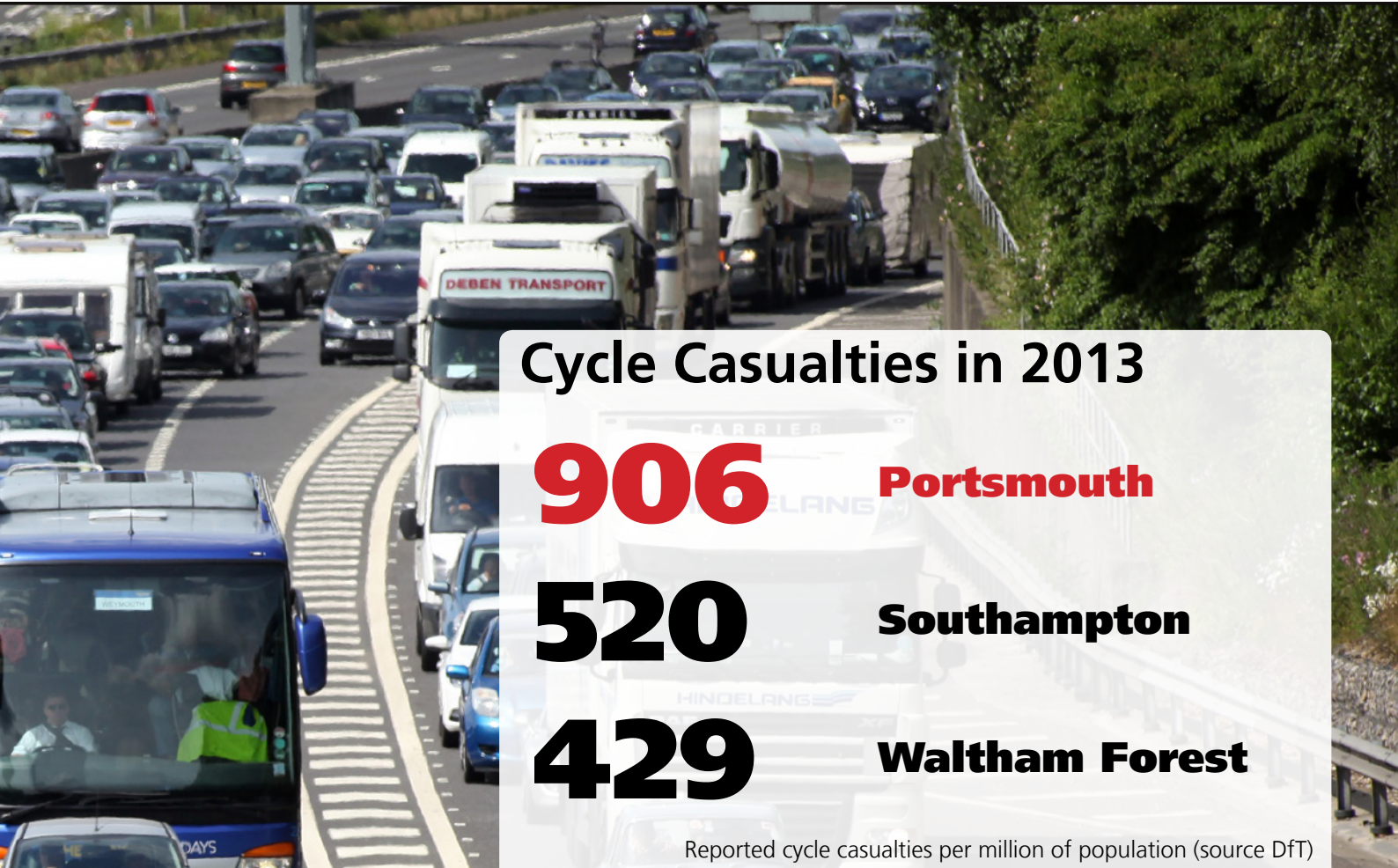
capacity in its transport system. The existing road network's capacity has been reached and there is no space for new roads. The dependence on the motor vehicle tends to push people to larger retail developments at the expense of our high streets. The development of improved public transport systems, although desirable, will take years and require huge investment.

Environment

Portsmouth has a serious air quality problem and this is largely due to vehicle emissions. It is thought that 600 early deaths in the city can be attributed to air pollution every year. Bold action is needed to reduce emissions to avoid punitive fines and the implementation of stringent Air Quality Management Areas.

Liveability

The city has become congested. Safety on the roads, particularly for cyclists and pedestrians has been seriously compromised. Journeys in the city are stressful and unpleasant. Busy roads divide communities and traffic noise blights thousands of lives. Public health officials recognise 'Healthy Sustainable Resilient Communities' to be a priority.



Cycle Casualties in 2013

906 **Portsmouth**

520 **Southampton**

429 **Waltham Forest**

Reported cycle casualties per million of population (source DfT)

One way to address all four of these areas together, maximising the return on investment, is cycling.

Portsmouth is unusually well suited to cycling. It is a flat, compact and temperate city where virtually any journey can be made by bike in just a few minutes. However, many people in Portsmouth are reluctant to make the choice to cycle due to concerns about the safety, security and convenience of cycling.

Currently Portsmouth has a very high rate of cycle accidents. There were 906 cyclist casualties reported per million of population in Portsmouth in 2013. By contrast Waltham Forest in North London, with a similar population density to Portsmouth had less than half that rate.

The vision for cycling in Portsmouth is that our roads will be transformed from being inherently unsafe for cyclists and pedestrians to being inherently safe. As the cycling casualty rate in Portsmouth falls people will perceive that it has become safe for them and their families to make more journeys by bike. The target is to halve casualties by 2020 and halve them again by 2025.

For people to choose to walk or cycle the conditions must be right and the right infrastructure needs to be in place. In a 2013 survey of Sky Ride participants, over 80% said they would definitely be encouraged to cycle more often if there were safer streets and cycle routes.

The target is to achieve a rate of 10% of journeys made by bike by 2020 and 20% by 2025. The increased rate of cycling will translate into major benefits for the health and wellbeing of Portsmouth's residents.

The city as a whole will benefit from re-engineering of Portsmouth's roads to make cycling safe: schoolchildren will be able to cycle safely to any school and pensioners and the disabled will not feel marginalised by the high volume and speed of traffic in the city's streets.

Portsmouth will reap dividends from the positive publicity associated with such a transformational project. Portsmouth will become a flagship city, recognised as the most attractive on the South Coast to live in, to work in and to visit.

Delivering the Strategy



Delivery of this strategy will be overseen by a cross-party sustainable transport working group reporting to the Leader of Portsmouth City Council.

The governing group will include stakeholders from businesses, healthcare bodies, educational institutions and community groups including Portsmouth Cycle Forum.

The crux of this strategy is to stimulate dramatic growth in the number of journeys made by bike. The growth of cycling, and the resulting fall in traffic will unlock great improvements in the city's health, environment, liveability and economy.

Making reductions in motor vehicle capacity will create space for cycling and increase overall road capacity as bikes use space more efficiently than motor vehicles.

This strategy is designed to support the Department for Transport's Cycling Delivery Plan, released in October 2014. Portsmouth City Council will enter into partnership with Central Government and Solent LEP to deliver the transformation in this ambitious strategy over 10 years. This will give priority access to funding and access to tools, incentives, knowledge sharing and sector expertise.

The delivery of the strategy will be divided into five key action areas:

- 1. Safety**
- 2. Transport**
- 3. Equality**
- 4. Leisure**
- 5. Planning**

Action Area 1: Safety

The perception that cycling is dangerous is one of the major factors that deters people from cycling. To address this requires a high standard of traffic engineering that prevents conflict between drivers, cyclists and pedestrians.

Portsmouth currently has one of the highest levels of cycle accidents in England. The major problems lie on the city's A and B roads. Most residential streets in Portsmouth already have 20mph speed limits. It is the faster roads that suffer most accidents and deter people from cycling.

The target is to halve the rate of cycling accidents and double the number of people cycling by 2020.



This will reduce the impact that road casualties have on families in the city and on health system. It will remove the major deterrent to cycling and enable the universal benefits of cycling to be realised.

Safety Actions

Short Term

Create and execute a cycle safety action plan – similar to that drawn up for London to address the immediate casualty crisis.

Research how cycle safety has been addressed in comparator communities e.g. Waltham Forest – which has similar population density to Portsmouth but less than half the rate of cycle casualties, York – a similarly sized university town and Copenhagen or Groningen which represent the European state of the art.

Adopt a mandatory hierarchy of use for streets across the city in extending the concepts from DfT's Manual for Streets. This will ensure that the safety of pedestrians and cyclists is considered before parking or an increase in motor vehicle capacity.

Offer drivers who hit cyclists and pedestrians in Portsmouth volunteering opportunities to support victims of road traffic accidents as an alternative to a fine.

Develop protected superhighways for cyclists serving the major routes into the city in the West, Centre and East of the Island. These will offer physical measures to prevent collisions between cyclists, motorists and pedestrians.

Develop the north-south cycle superhighways into network of direct, high capacity, joined-up consistent cycle tracks. This will include Dutch-style fully segregated lanes and junctions; mandatory cycle lanes, semi-segregated from traffic; and a network of direct back street Quietway routes on our 20mph residential streets.

Long Term

Action Area 2: Transport



Sources: DfT, Bothma & Papendrecht 1991

High quality cycle provision on the roads is essential for cycling to become attractive for popular transportation.

The city will provide direct routes which are convenient and easy to follow. Integration of cycling at transport hubs will simplify multi-modal journeys using public transport as well as the bike.

Creating space for cycling will reduce levels of motor traffic. These measures will benefit not

only cyclists but also those who need to drive, who will face less congestion, and pedestrians, who will enjoy cleaner, quieter and safer streets.

Cycling will bring benefits to business. The creation of space for cycling will greatly increase Portsmouth's capacity to bring customers to businesses.

Cycling favours local traders in local high streets, where studies have shown shoppers arriving by bike spend more.

Transport Actions

Short Term

Carry out a Cycle Level of Service Audit on all streets in the city to baseline the current transport system and to allow for detailed planning of new infrastructure.

Research the best ways to provide more space for cycling. Undertake modelling to identify the solutions which deliver the best balance of required cycle space and motor vehicle space.

Define a set of design standards for cycle infrastructure across the city to create a safe and consistent network.

Work with businesses to help them plan for their staff to use active travel and to provide the necessary secure bike parking and other facilities.

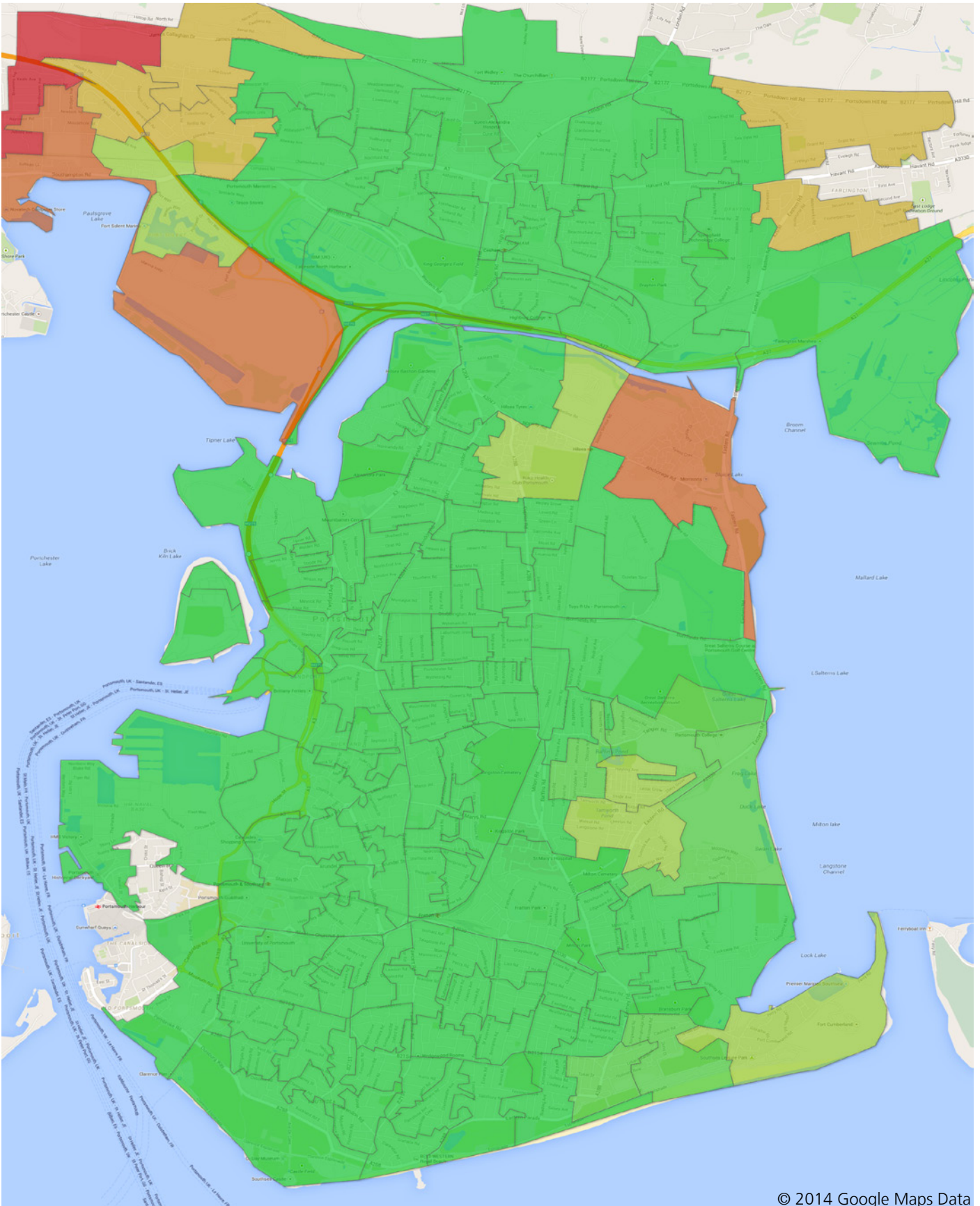
Introduce automated bike hire supporting transport hubs and major employment and leisure destinations across the city. Include bike hire in integrated ticketing as it is introduced for rail, bus and ferry services.

Implement protected superhighways for cyclists serving the major routes into the city in the West, Centre and East of the Island following or mirroring the A-roads that provide access for motorists, providing similar direct and uninterrupted connectivity that motorists enjoy.

Develop the north-south cycle superhighways into network of direct, high capacity, joined-up consistent cycle tracks. These will provide connectivity to residential streets giving safe cycle access to every property.

Long Term

Delivering the Strategy



© 2014 Google Maps Data

Journey time to nearest shopping area by bicycle versus car



Shorter

Similar

Longer

For most journeys in Portsmouth it is already faster to travel by bike. This map, compiled from Department for Transport statistics, shows in green areas where it is typically as fast if not faster to travel to the nearest shopping area by bike.

Action Area 3: Equality

The benefits of cycling should be available to everyone who wishes to cycle. Cycle infrastructure should be accessible to disabled cyclists using adapted cycles, child carrying bikes and cargo carrying bikes as well as standard two-wheeled cycles.

By adopting the concept of 'the inclusive bicycle' we will recognise that, because of the size of many non-standard types of bicycle and the possible limitations of riders, a more forgiving environment is required.

This will bring benefits of social inclusion and independent living to those who currently



depend on others for transport. Safe cycling will enable children to cycle to school transforming the traffic chaos that surrounds many schools at the start and finish of the day.

Equality Actions

Short Term

Establish a Vulnerable Road Users forum to inform cycle infrastructure design standards. This will ensure accessibility of the cycle infrastructure to all and remove conflict between users of cycle infrastructure and pedestrians. All cycle infrastructure should be accessible to all cyclists.

Develop city travel plans to target the needs of specific groups of everyday travellers including school children, students and business commuters.

Develop a travel plan for every school in the city to provide safe cycle access to every school in the city from all directions. Introduce controls on vehicle movements around schools at the start and end of the school day.

Develop cycle awareness and incentive schemes targeted at 14-16 year olds. This is the key age for intervention.

Commit to the Central Government ambition, stated in its Cycling Delivery Plan, that every child who can walk or cycle to school should do so. Portsmouth will aim to achieve this target.

Build on projects (e.g. Wheels4All) to develop cycle training for disabled cyclists with the goal of providing long term access to cycling as a means of travel and leisure. Wheelchair adapted bikes to be available for hire.

Implement a network of direct, high capacity, joined-up consistent cycle tracks designed to safely accommodate the young, the old and the less able-bodied as well as fit adult cyclists.

Long Term

Delivering the Strategy



Commuting by handcycle in Milwaukee

Action Area 4: Leisure



Portsmouth aims to become a major tourist destination. The city should be easy and pleasant to explore by bike.

Most adults returning to cycling do so first as a leisure activity. It is essential that those leisure rides work well to help encourage the shift from

the private car for other journeys.

The provision of pleasant routes to explore the historic locations and coastlines of the city will bring further activity into people's lives. This will deliver mental and physical health benefits fostering an active, social city.

Leisure Actions

Short Term

Make ferry ports easily and safely accessible by bike, and cycle access clearly navigable to visitors. Cycling is a growing market for cross-channel, Isle of Wight and local ferry operators. Brittany Ferries reported a 17% increase in cycle passengers between 2012 and 2013.

Promote regular events to get people cycling, tied in with local features and attractions. Close roads to create a traffic free environment for larger events.

Develop visitor hubs for cyclists with provision for cycling storage and designated cycle paths suitable for all in green areas e.g. Baffins Pond, Hilsea Lines.

Integrate leisure routes and superhighways in the city into the National Cycling Network to facilitate longer distance journeys.

Support hotels and guest houses in providing cycle hire and parking. Provide access to the city cycle hire scheme to visitors.

Work with local cycling clubs and British Cycling to reopen the Mountbatten Centre track as a training and coaching facility for sporting cyclists.

Develop quietways and greenways following the city's coastlines and connecting to visitor destinations. As flood defences are renewed cycle routes will be integrated along the coast of the island.

Long Term

Action Area 5: Planning

The planning system must embrace transport, active travel and cycling at its core. Planning will ensure regeneration and redevelopment takes the opportunity to develop and enhance the cycling and walking network.

Development will unlock funding. We will require developers to make a fair contribution to the development of active travel serving their developments.

We will use the planning system to address bicycle storage. New developments will be required to have secure cycle parking for all residents. We will also plan for cycle parking in the existing housing stock. The city is comprised



to a great extent of Victorian and Edwardian terraces, with limited rear access and storage space. Develop planning policy to encourage the secure storage of bicycles in such properties.

We will work to ensure adequate and secure cycle parking is provided at all retail, leisure and major employment locations.

Planning Actions

Short Term

The Cross-Party Sustainable Transport Working Group, which governs delivery of this strategy, will be a consultee on all planning applications that impact transport.

Develop planning policy to allow CIL contributions to be sought for improved sustainable transport infrastructure. All developments will be required to be fully integrated into the planned cycle network.

Consult on whether to prioritise planning applications for new homes where the developer commits to provide cycle storage for 75% or more of dwellings.

Consult on Mini-Holland schemes in Town Centres (e.g. Southsea, North End, Cosham) to become hubs for visitors walking, cycling and arriving by bus.





Consult on a city wide parking permit scheme to control the excess demand for car parking spaces.

Require all new developments to include adequate secure cycle parking in their plans. For residential developments this must include all residents and visitors, for commercial developments it must provide for staff and visitors. All new developments must be well connected to the cycle network and fully accessible to pedestrians and cyclists.

Develop a master plan for terraced streets. Include measures by which cycle storage can be incorporated into individual terraced properties and into the public realm, e.g. by reallocating car parking.

Long Term

Benefits of the Strategy

	Portsmouth	Cambridge
 Cycling Rate <small>Source: 2011 Census</small>	4.6%	16%
 Early Death: Heart Disease <small>Source: Public Health England</small>	96.3 <small>per 100,000 population</small>	66.7 <small>per 100,000 population</small>
 Physically Active Adults <small>Source: Public Health England</small>	51%	64.7%
 Obese Children <small>Source: Public Health England</small>	21%	16.6%

Health

Portsmouth's Director of Public Health sees active travel as the key means by which the major health problems which shorten the lives of many residents of the city. In Portsmouth nearly 60% of adults and around 35% of year six children are overweight or obese¹.

The lack of physical activity is a key factor in these levels of obesity. This leads to diseases including breast cancer, colorectal cancer, diabetes and coronary heart disease.

Introducing regular physical exercise combats obesity and will help to lengthen not just the life expectancy of our residents but the length of

their active life too. People will be healthier for longer. In the Netherlands, where cycling is part of everyday life, obesity rates are less than half those of the UK.

Cycling also brings mental health benefits. Research has shown that active commuters, like cyclists, felt better able to concentrate and under less strain than when travelling by car².

1. Portsmouth JSNA
2. <http://www.bbc.co.uk/news/health-29175088>



Growth

The economic downturn has hit town centres hard. Nationally, two in every 15 shops are standing vacant, with some regions and cities suffering much more¹.

While providing more car parking is often touted as the solution, encouraging sustainable transport plays to the strengths of the local high street. Retailers over-estimate the contribution of drivers and many studies find users of sustainable modes spend more per month².

On a car parking space there is room for parking up to eight bicycles. Comparing the revenue of a single motorist to that of eight cyclists on an average shopping trip, bicycle parking potentially generates 4.5 times more revenue than one car parking space³.

The economy of the whole city is limited by the capacity of its transport system to bring consumer and goods together. The capacity of the roads can be greatly increased by dedicating space to cycling

We can calculate the capacity of the roads onto the Portsea Island very easily - a figure of about 15000 cars⁴ an hour, or about 18,000 people per

hour⁵ at average vehicle occupancy rates.

We know from census data that many times that number commute to work each day. It isn't hard to see why Portsmouth's traffic is so bad.

Fixing this for cars would be difficult without building additional motorway bridges into the city, and urban motorways down the island. Even this may not provide more than a brief respite.

Cycles use roads more efficiently, with up to seven times more people able to travel on the same road space⁶. Improving cycling infrastructure is much cheaper than building new motorways and has much less impact on the existing city. Reallocation of one lane of road space at Hilsea and one at Eastern Road could increase the capacity from 18,000 people per hour to 33,000.

1. Butler 2014
2. Clifton et al 2013
3. Copenhagen Bicycle Account 2012
4. DfT Design Manual for Roads and Bridges
5. DfT Table NTS0905
6. Bothma and Papendrecht 1991



Environment

Portsmouth has some of the highest levels of air pollution in the south east. According to the Department for Environment, Food and Rural Affairs, air pollution in Portsmouth is the third worst in the region.

Portsmouth is one of nine cities that have been given three more years to reduce NO₂ pollution by the European Commission¹. Should the city fail to meet its target punitive measures could be enforced.

Air pollution from NO₂ and minute particles of partially burned soot is recognised by the government and medical experts as the second-

biggest public health threat after smoking, costing the UK an estimated £20bn a year². In Portsmouth it is estimated that 600 early deaths every year are directly attributable to air pollution³.

The primary source of air pollution in Portsmouth is motor traffic⁴. It is therefore of paramount importance to reduce the level of pollution from this source.

1. <http://www.theguardian.com/environment/2012/jun/28/uk-cities-ban-polluting-traffic>
2. DEFRA Air Quality Strategy
3. Meeting with Director of Public Health
4. <http://www.portsmouth.gov.uk>



Liveability

Interventions to boost cycling create better places. Making residential streets cycle-friendly, by cutting rat-running and calming motor traffic, will benefit cyclists, pedestrians, and residents.

Streets with little motor traffic are popular with cyclists and pedestrians, and encourage people to make friends with neighbours and spend time on their streets¹.

In Vancouver, a study of new cycle tracks suggests they may have made pedestrians perceive the block as 'less polluted, less overcrowded, more stimulating, and more peaceful'². A recent US study examined how seven new protected bicycle lanes affected local pedestrians. At all sites pedestrians tended to report fewer pavement cyclists, while at most sites, reported benefits included lower driving speeds, safer crossings, and better walking environments³.

In Portsmouth many communities are divided by busy streets. The lack of availability of car parking is one of the most contentious issues with local people. In many areas there are simply





not enough parking spaces to meet demand. The solution will be to reduce demands by switching more journeys to cycling.

The reduction of traffic noise will bring huge benefits. Traffic noise can cause hypertension, heart disease, stress and sleep disturbance. Changes in the immune system and birth defects have been attributed to noise exposure⁴.

Cycling on quiet, safe streets will enable our children to become more independent. They will once more be able to cycle to school and to visit their friends without the fear of traffic. This will help foster a healthier, more confident generation.

1. Hart and Parkhurst 2011
2. Jay 2014
3. NITC 2014
4. Wikipedia: Health effects from noise

Targets

	2020	2025
 Rate of Cycle Accidents <small>Per million of population</small>	450	225
 Perceived Safety <small>Percentage of non-cyclists who think cycling is safe</small>	50%	80%
 Cycling Rate <small>Percentage of all journeys made by bike.</small>	10%	20%
 Active Travel to School <small>Percentage children walking or cycling to school</small>	60%	80%

The essential improvements to the health, wealth, wellbeing and environment of the city can all be realised by reducing motor vehicle use and increasing cycle use. In order to do that it is essential to provide safe, attractive and convenient routes for people to cycle on.

The number of commuting journeys made by bike at present in Portsmouth is 4.6%. Portsmouth has geographical and demographic features that suggest cycle mode share should be much higher.

Cambridge has a rate of 16%, York (a city with an almost identical working population to Portsmouth) 8%. Groningen in the Netherlands represents a similar sized city to Portsmouth and has cycling rates in excess of 50%.

In order to increase cycle use in Portsmouth it is essential to focus on safety. The rate of cycle

accidents in Portsmouth is one of the highest in the country so the rate of accidents must be reduced.

It is also important to improve how safe people perceive it to be. At present in the UK 48% of cyclists currently feel it is too dangerous and 67% of non-cyclists, according to DfT statistics.

The key measurements to monitor the success of this strategy will be:

- 1. Actual Safety** - The real level of accidents suffered by cyclists;
- 2. Perceived Safety** - The perceived level of hazard cyclists face;
- 3. Cycle Share** - The proportion of **all** journeys made by bike and the number of active journeys made to school.

These targets will be measured and reported annually over the ten-year life of this strategy.

