

Traffic Management

Learning Objective:

-Analyse issues with traffic in urban areas



Learning Outcomes:

- Explain** why car ownership has increased
- Classify** issues with more traffic
- Assess** specific solutions in Newcastle



Why has car ownership increased?

- Commuter villages - Darras Hall/Ponteland,
- Increasing disposable incomes
- Increased leisure time
- Advertising/status symbols
- Cars becoming cheaper / more finance available
- Roads improving so people more likely to drive
- Quicker and easier to travel to places
- **CATT – e.g. People now have more leisure time. As a result, they might use that time for...**



How might you classify these statements?

<p>Air pollution from traffic makes asthma worse for millions of children.</p>	<p>Thousands of people are killed on the roads each year.</p>	<p>Congestion costs the British economy £15 billion each year – people are late to work!</p>	<p>Road transport is responsible for 1/5 of the UK's carbon emissions.</p>
<p>Over 45,000 badgers are killed each year on Britain's roads.</p>	<p>Deliveries made by lorries are delayed, which causes companies to lose money.</p>	<p>Building more roads actually leads to more traffic as more people buy cars.</p>	<p>It is expensive to build roads, the widening of the M25 around London will cost £1.6 billion.</p>
<p>Particulates (soot), carbon monoxide and nitrogen dioxide are all released by car exhausts.</p>	<p>Vehicle exhausts fumes can cause acid rain which can poison lakes and destroy buildings.</p>	<p>CO², NO² and particulates react on hot summer days to cause smog which kills up to 3,000 people each year.</p>	<p>Noise pollution is caused by motorways and congested city roads.</p>
<p>Important wildlife habitats are destroyed by road building</p>	<p>Congestion has led to a drop in speeds on some roads to an average of 5.4 mph in rush hour.</p>	<p>1.6 billion hours of peoples lives are wasted each year due to congestion.</p>	<p>Congestion can cause visual pollution and deter tourists from visiting.</p>

SOCIAL

ECONOMIC

ENVIRONMENTAL

Air pollution from traffic makes asthma worse for millions of children.

Thousands of people are killed on the roads each year.

Congestion costs the British economy £15 billion each year – people are late to work!

Road transport is responsible for 1/5 of the UK's carbon emissions.

Over 45,000 badgers are killed each year on Britain's roads.

Deliveries made by lorries are delayed, which causes companies to lose money.

Building more roads actually leads to more traffic as more people buy cars.

It is expensive to build roads, the widening of the M25 around London will cost £1.6 billion.

Particulates (soot), carbon monoxide and nitrogen dioxide are all released by car exhausts.

Vehicle exhausts fumes can cause acid rain which can poison lakes and destroy buildings.

CO², NO² and particulates react on hot summer days to cause smog which kills up to 3,000 people each year.

Noise pollution is caused by motorways and congested city roads.

Important wildlife habitats are destroyed by road building

Congestion has led to a drop in speeds on some roads to an average of 5.4 mph in rush hour.

1.6 billion hours of peoples lives are wasted each year due to congestion.

Congestion can cause visual pollution and deter tourists from visiting.

Transport problems in Newcastle

- Congestion every rush hour on the A1 bypass, Tyne bridge and Tyne Tunnel.
- 60,000 vehicles using the Coast Road pump 150 tonnes of CO² into the atmosphere every single day.
- 40% of all new journeys into the centre of Newcastle are by public transport, with the remaining 60% being by private car.

Tyne and Wear Congestion Corridors



Newcastle and Gateshead Quaysides

Newcastle Airport



Port of Tyne



Stadium of Light



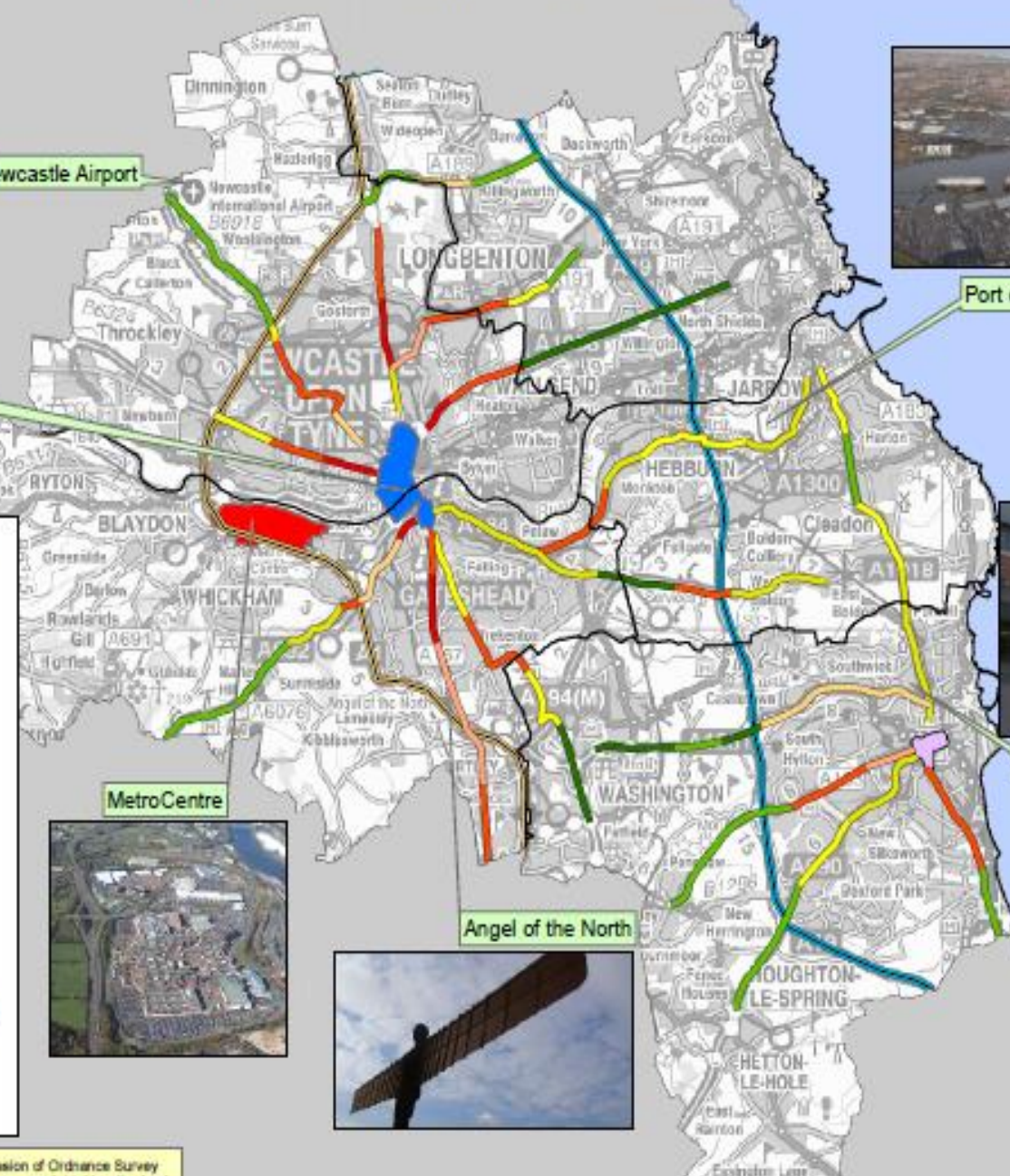
MetroCentre



Angel of the North

Person Journey Time - 7 - 10 am

- less than 2 minutes per mile
- 2 - 3 minutes per mile
- 3 - 3.25 minutes per mile
- 3.26 - 3.5 minutes per mile
- 3.51 - 3.75 minutes per mile
- 3.76 - 4 minutes per mile
- 4 - 5 minutes per mile
- more than 5 minutes per mile
- A19
- A1
- NewcastleGateshead Urban Centre
- Sunderland Urban Centre
- Metrocentre



This map is Based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office, © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Newcastle City Council, 100019569, 2008.

SUSTAINABLE TRANSPORT SOLUTIONS



Public transport:

- London Underground – combined with busses (Oyster Card)
- The Metro in Newcastle – might be extended
- Park and ride facilities (one bus can take 50 people)
- Cycle lanes – combine with public transport (bikes on a bus)

Traffic flow management:

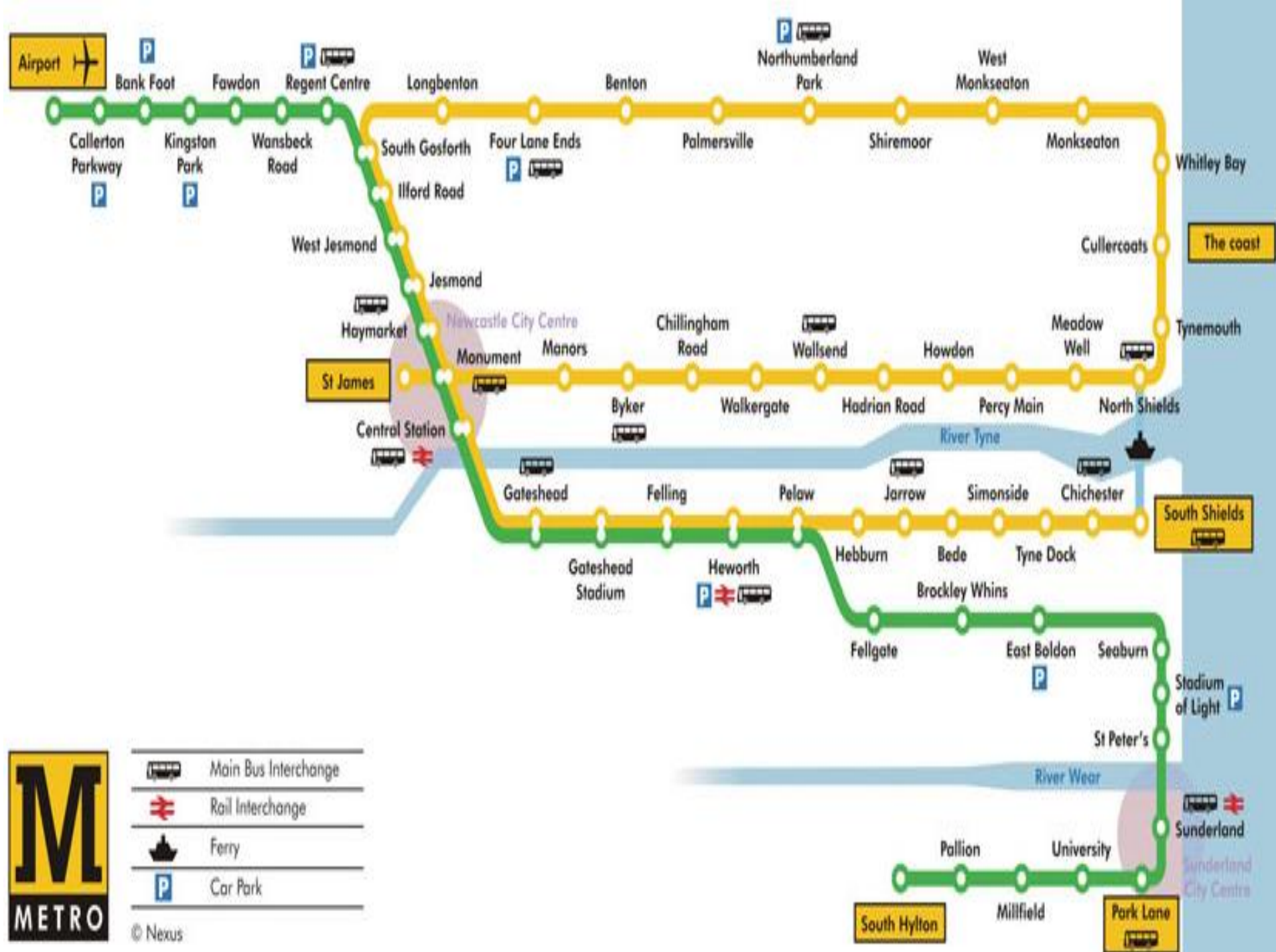
- London (£11.50) and Durham's (£2) congestion charge (numbers down 85% through the centre of Durham)
- Ring roads and bypasses (around urban areas, not through)
- Bus priority lanes
- Pedestrianised areas
- Car sharing
- Promoting flexible working hours (not working 9am-5pm)

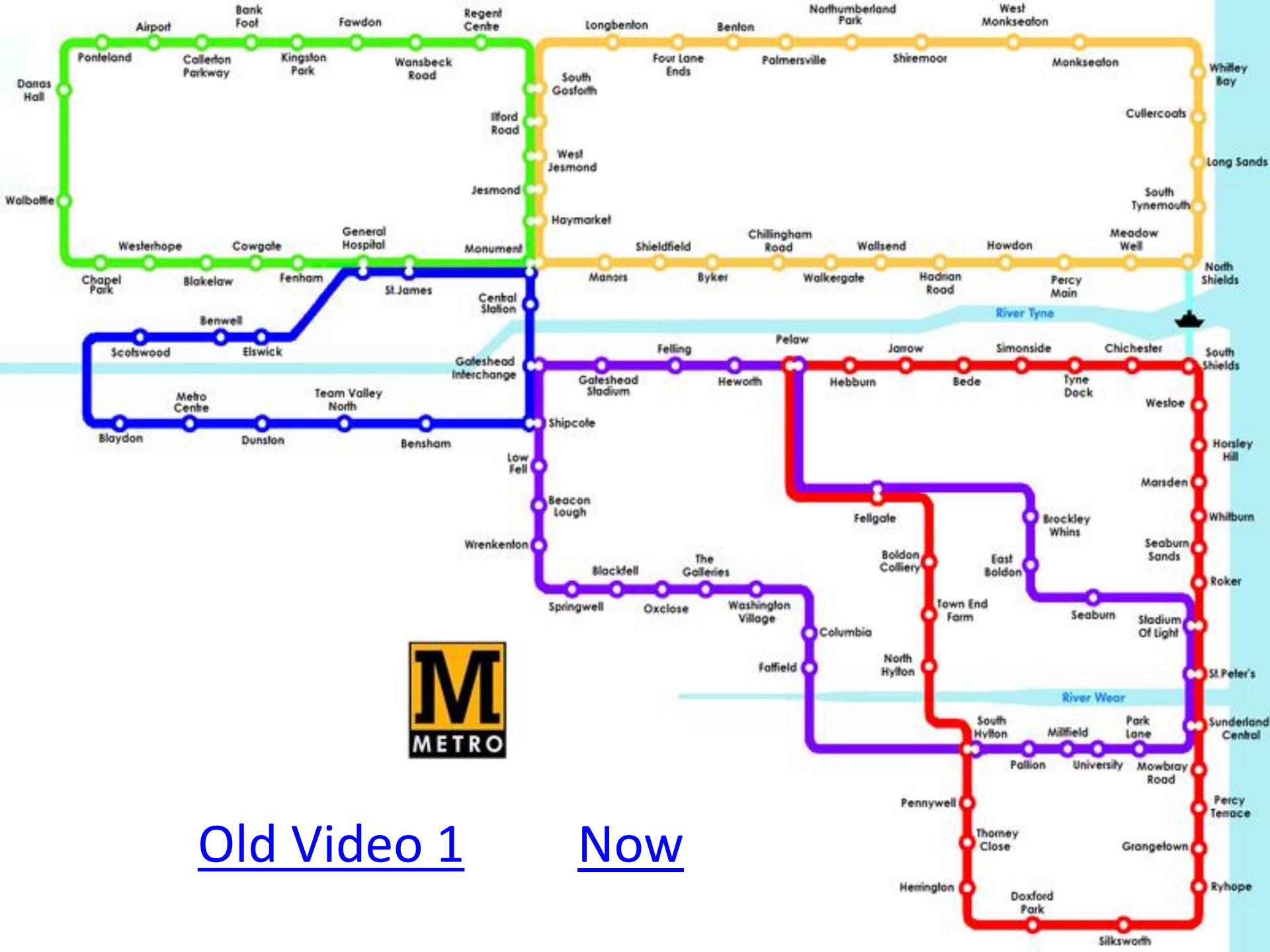


Public Transport in Newcastle



- The **Tyne and Wear Passenger Transport Executive** (TWPTE) commonly called Nexus runs public transport in Tyne and Wear.
- An example of Integrated transport management – buses used also.
- Tyne and Wear Metro is a light rail system with 60 stations serving Newcastle, Gateshead, Sunderland, North Tyneside and South Tyneside.





Old Video 1

Now

Quayside ultra low emission hybrid gas-turbine/electric buses



<https://www.youtube.com/watch?v=tv4L3-uwbu>

Park and Ride X66

CentreLink

Running mainly on its own dedicated bus route, CentreLink X66 takes only 10 minutes to get you to hundreds of shops and great leisure facilities at Metrocentre or Gateshead. And with a super-frequent service you'll never have long to wait for a bus. CentreLink is also a great service to help you link with other buses travelling further afield.

► [Buy tickets online](#)



Other Park and Ride facilities – Kingston Park, Great North Park, 4 Lanes End, Regent Centre, Heworth



Cycling in Newcastle



- The Government Cycle to work scheme – encourages people to cycle to work by tax free bikes with monthly payments from your salary.
- Safe cycle paths and lanes - more than 500 miles of routes on Tyneside.
- **Sustrans** is the UK's leading sustainable transport charity – aim is to reduce the impacts of transport.

Describe **two** different ways that public transport can **reduce traffic congestion** in Newcastle.

Explain **two** strategies for *managing traffic flow* in urban areas (anywhere in the UK).

How effective is the Metro in Newcastle?

- What is **good** and **bad** about it?
- Think about the map of congestion towards the centre compared to the edge of the city