Bath & North East Somerset Council

Climate Emergency and Sustainability Policy Development and Scrutiny Panel

Date: **Monday, 20th July, 2020**
Time: **4.00 pm**
Venue: **Via zoom**

Councillors: Karen Walker, Tom Davies, Alison Born, Shelley Bromley, Sue Craig, Joel Hirst, Lisa O'Brien, Grant Johnson and Dr Kumar

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NOTES:
1. **Inspection of Papers:** Papers are available for inspection as follows:

Council's website: https://democracy.bathnes.gov.uk/ieDocHome.aspx?bcr=1

Paper copies are available for inspection at the Guildhall - Bath.

2. **Details of decisions taken at this meeting** can be found in the minutes which will be circulated with the agenda for the next meeting. In the meantime, details can be obtained by contacting as above.

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Climate Emergency and Sustainability Policy Development and Scrutiny Panel - Monday, 20th July, 2020

at 4.00 pm via zoom

A G E N D A

1. WELCOME AND INTRODUCTIONS

2. EMERGENCY EVACUATION PROCEDURE

   The Chair will draw attention to the emergency evacuation procedure as set out under Note 6.

3. APOLOGIES FOR ABSENCE AND SUBSTITUTIONS

4. DECLARATIONS OF INTEREST

   At this point in the meeting declarations of interest are received from Members in any of the agenda items under consideration at the meeting. Members are asked to indicate:

   (a) The agenda item number in which they have an interest to declare.

   (b) The nature of their interest.

   (c) Whether their interest is **a disclosable pecuniary interest** *or* an **other interest**, (as defined in Part 2, A and B of the Code of Conduct and Rules for Registration of Interests)

   Any Member who needs to clarify any matters relating to the declaration of interests is recommended to seek advice from the Council's Monitoring Officer or a member of his staff before the meeting to expedite dealing with the item during the meeting.

5. TO ANNOUNCE ANY URGENT BUSINESS AGREED BY THE CHAIRMAN

6. ITEMS FROM THE PUBLIC OR COUNCILLORS - TO RECEIVE DEPUTATIONS, STATEMENTS, PETITIONS OR QUESTIONS RELATING TO THE BUSINESS OF THIS MEETING

   At the time of publication no notifications had been received.

7. MINUTES (Pages 7 - 14)

8. OVERVIEW OF THE RENEWAL PROGRAMME WORKSTREAMS (Pages 15 - 24)

   The report attached sets out an overview of the 3 workstreams (Re-opening, Resilience, Renewal Vision) for Panel Members to scrutinise and comment to Cabinet.

There will also be a presentation at the meeting.

9. LIVEABLE NEIGHBOURHOODS (Pages 25 - 168)

The report is attached on Liveable Neighbourhoods.

10. PANEL WORKPLAN (Pages 169 - 172)

This report presents the latest workplan for the Panel. Any suggestions for further items or amendments to the current programme will be logged and scheduled in consultation with the Panel's Chair and supporting senior officers.

The Committee Administrator for this meeting is Michaela Gay who can be contacted on 01225 394411.

BATH AND NORTH EAST SOMERSET

MINUTES OF CLIMATE EMERGENCY AND SUSTAINABILITY POLICY DEVELOPMENT AND SCRUTINY PANEL MEETING

Monday, 16th March, 2020

Present:- **Councillors** Karen Walker, Tom Davies, Alison Born, Shelley Bromley, Joel Hirst, Lisa O'Brien, Grant Johnson and Dr Kumar

Apologies for absence: Councillors: Sue Craig

42 EMERGENCY EVACUATION PROCEDURE

The Chairman drew attention to the emergency evacuation procedure.

43 WELCOME AND INTRODUCTIONS

The Chairman welcomed everyone to the meeting.

44 APOLOGIES FOR ABSENCE AND SUBSTITUTIONS

Councillor Sue Craig gave apologies for the meeting.

45 DECLARATIONS OF INTEREST

There were none.

46 TO ANNOUNCE ANY URGENT BUSINESS AGREED BY THE CHAIRMAN

There was none.

47 ITEMS FROM THE PUBLIC OR COUNCILLORS - TO RECEIVE DEPUTATIONS, STATEMENTS, PETITIONS OR QUESTIONS RELATING TO THE BUSINESS OF THIS MEETING

The Panel noted that a member of the public, Nicolette Boater, submitted a question regarding Climate Emergency (relating to item 8 on the agenda). The question and answer was circulated and is set out below:

Question:
In the absence of any reference of the B&NES Climate Emergency, Environment & Place Partnership (promised in Council's 10.10.19 Climate Emergency Progress report) in either the 16.3.20 Climate Emergency Update report or associated Appendix 1, please can you advise what progress has been made to setting this up?

Answer:
We have set up the Climate Emergency Public Services Group and further work is underway on the wider B&NES partnership, of which this group is a key part.

48 MINUTES - 20TH JANUARY 2020

The Panel confirmed the minutes of the previous meeting (20th January 2020) as a true record and they were duly signed by the Chair.

49 CLIMATE EMERGENCY ACTION PLAN

The Cabinet Member for Climate Emergency, Councillor Sarah Warren introduced the item. The Corporate and Community Sustainability Manager, Jane Wildblood, gave a presentation to the Panel which covered the following:

- Action Plan Update
- Corporate Strategy
- Report – key actions update
- Citizens engagement programme
- Strategy and plan reviews
- Recommendations

Panel members asked the following questions and raised the following points:

Councillor Born raised the following points. *Officer and Cabinet Member responses are shown in italics.*

- Could retrofitting could be brought forward and maybe progressed from the draft guidance stage. *The Cabinet Member for Housing, Planning and Economic Development explained that consultation on the development plan starts in November which is ten months away and quick in planning terms. The process must be followed.*

- The Parish Council tool kit is excellent, could it be adapted for Bath residents' associations. *The officer agreed that the tool kit could be adapted as suggested.*

- Could we produce some guidance for householders setting out practical steps. *The officer explained that this is in hand and the guide will be similar to the '50 things you can do' guide which has been publicised in the press.*

Councillor Hirst raised the following points. *Officer responses are shown in italics.*

- Are there any quick wins as it can be useful to be able to point to practical steps we are taking. *The officer explained that some things have been done already such as LED street lighting and the Civic Centre in Keynsham. Also, we are supporting Bath and West Community Energy. We have a small team compared to other local authorities so we will do our best with the resources we have.*
- Regarding the list of policies, can we create a timeline and do the policies come through this Panel for review or go to separate places. *The officer explained that the Panel could look at the policies.*

- There is a deficit regarding the Bath Area Forum, we have to fill that void. We must keep working to engage the whole of BANES.
- Supportive of a citizen's jury regarding retrofitting.

Councillor Johnson raised the following points. *Officer responses are shown in italics.*

- A task and finish group would be better than a single day event. Members could get more involved.
- Could the Parish Council tool kits be adapted for businesses too. Sometimes businesses need a nudge.
- The tool kit is available online but a lot of people still struggle to find things online, a lot of people will not prioritise this unless something is put in front of them. *Councillor Warren, Cabinet Member for Climate Emergency explained that she working with the Communications department to review how information can be accessed so they could consider paper copies.*

Councillor O Brien raised the following points:

- Retrofitting should be the priority as that is where most carbon emissions come from. There is a company that provides low ratio loans for people to carry out the work needed, the Council could look into this too.
- Solar panels can be problematic because of home ownership, the authority could 'rent' roofs to put solar panels on and the residents could receive a reduced energy rate. People respond where they can see a benefit or save money. Councillor Walker supported the idea of giving people a cash incentive and agreed that renting roofs was a great idea.
- Windfarms are controversial so maybe we should concentrate on using what we have already which is roofs (including schools).

  The officer responded that she loved the ideas and will be looking at the best financing options. She stressed the need for a community response rather than individual, piecemeal response.

Councillor Davies thanked the officers and the Cabinet Member. He stated that it would be good if residents could see the action plan, a lot has been done and people do not always join the dots. Things such as the Clean Air Zone and recycling are all related to the climate emergency. The action plan is full – it would be good to come up with a brand such as 'tackling the climate emergency' which we can use to show which projects are helping towards this. Maybe stickers with a logo or phrase – people can then see the things that are being done towards the goal. *The officer responded that this is on the agenda and work is being done with Communications and Marketing on a design.*

Councillor Bromley stated that it is good to have incentives for people who are time poor and busy.

Councillor Dr Kumar stated that the Council should improve facilities for online meetings. He stated that dissemination of online information on climate change is vital.

In response to a question from Councillor Walker, the officer explained that she is working with the housing team to help people in fuel poverty as any retrofitting scheme must take people on low income into account.
Councillor Walker asked if the officer could speak to the local authority for Cornwall to ask how they dealt with objections regarding wind turbines. The officer explained that she is sharing information on this, she explained that where there is community ownership regarding wind turbines – they are accepted. Also, a national survey has shown the 85% of the population are ok with wind turbines so there may not be as much resistance as anticipated.

It was **RESOLVED** that:

1. The Panel play a role in the alignment of all the Council's strategies and plans where possible;

2. Support the setting up of a task and finish group to investigate housing and retrofitting.

50 WASTE STRATEGY 2020-2030

Pam Jones - Interim Project Manager, Environmental Services introduced the report. She explained that this is an early report on emerging themes and wanted to hear the Panel's comments on compulsory recycling. She added that she had been working closely with the Corporate and Community Sustainability Manager.

Panel members asked the following questions and raised the following points:

Councillor Hirst raised the following points:

- He has concerns around the closure of the Midland Road Site. It would not be appropriate to move it to Oddown due to the busy road.
- Anxious about compulsory recycling as we are managing recycling well so would making it compulsory make enough of a difference?
- Worried about vulnerable people – a draconian approach may cause stress. The nudge approach is better.
- Excited about growing the reuse and repair group. They could drop in on ward meetings.

The officer explained that we have a 58% success rate regarding recycling, but we have run out of things to do to improve this. Around 20% of residents do not recycle. Making it compulsory might mean we can jump from 58% to 61%. This move would not be based around just fines, it would be mainly about education.

Councillor Bromley stated the current system for recycling in BANES is complex, maybe you could make the benefits of this system clearer and incentivise rather than punish.

Councillor Wood, Cabinet Member for Neighbourhood Services explained that some counter education is needed, some people believe the Council puts all the collected recycling into landfill. The officer explained that the Government 2023 Strategy will

set out how Council's should get rid of waste, we aligned with this already. We need to work on putting out the message that recycling is helping with the Climate Emergency agenda – the environmental benefits are the equivalent of taking cars of the road.

Councillor Johnson made the following points:

- Recycling should be made compulsory and BANES should push to be the best authority on this.
- Charges for garden waste may disincentivise people.
- To what extent will the Council's actions be superseded by the Government Waste and Recycling Strategy?
- Can the Council act over people having fires in their garden?

The officer responded that the Council's plans are aligned with the Government's Strategy. There is a need to help support people to compost more waste. There is a proposal in the Strategy that garden waste should be made free. Councillor Crossley, Cabinet Member Community Services explained that he disagreed with this in that some people do not have gardens. He stated that he thought the community initiatives in the report such as street champions and volunteers was a good idea as local people might get a better response than Council advice. Councillor Crossley added that the Government should give Council's the responsibility to pick up business recycling and litter and it should be made illegal to pack things with polystyrene.

Councillor O Brien stated (regarding the Waste Strategy) that there are a number of homes such as flats and apartments where there are inadequate recycling facilities so she cannot support compulsory recycling as it would not be fair. She added that there is still more education that can be done about what people can recycle (eg. Some tips take polystyrene). She added that she agreed with the point on the repair cafe as the one regularly held in Keynsham is well-support and was crowded at the last event. It helps people use skills and is also a community project. Councillor Wood, Cabinet Member for Neighbourhood Services commented that there is a drive to bring more flats on board regarding recycling rates. Lisa Gordon (Waste officer) added that there are storage issues for some flat owners and officers are working on this.

Councillor Born made the following points:

- A plea for more communal recycling – maybe underground bins, particularly in the city centre.
- It important to note that some city centre flats are not Curo properties so this may not be solely Curo's responsibility.
- Do not agree with compulsory recycling until there is more equality.
- We could publish how much we pay for waste that we put into landfill.
- Regarding the recycling centre – in agreement that it should be moved outside the city centre, but some smaller city centre provision also needed.

The officer agreed on the importance of publishing information such as how much it costs to put a dustcart full of waste into landfill verses the cost of a recycling truck.

The officer added that it can be hard to engage with flat owners in the city centre. The officers are looking at on street food waste bins.

Councillor Davies made the following points:

- There should be some caution on compulsory recycling until we have done everything else we can to address the issue.
- We could put stickers on bins etc. to show statistics about recycling.
- Do we understand what the barriers are for the 20% of people that do not recycle?

The officer responded that uptake regarding food waste was sporadic. This is being monitored and can be reported back. The officer stated that she did not know the reason why 20% of people do not recycle but from Autumn this year there will be technology which will identify which households are not recycling which can then be targeted with better information. The Cabinet Member for Neighbourhood Services added that this technology will be a game changer.

There was some discussion around the use of biodegradable bags in food waste bins. The Cabinet Member for Neighbourhoods explained that people can use newspaper or plastic bags – they will be removed at the plant.
Councillor Dr Kumar made the following points:

- In favour of the street champion idea.
- Agree that garden collections should not be free.
- In some religions there would be no food waste, these families should not be punished.

The Cabinet Member for Neighbourhood Services agreed that there may be good reasons why people do not have food waste so we cannot to be heavy handed.

Councillor Walker made the following points:

- Happy to support free garden waste as it might alleviate fly tipping.
- Support the deposit and refund scheme.
- Regarding the CCTV dash cam technology – crews must also be careful not to drop waste.
- If people compost, they will have no food waste.

Councillor Wood, Cabinet Member for Neighbourhood Services stated that the discussion had been useful and noted that most of the Panel are cautious about compulsory recycling.

51 PANEL WORKPLAN

The Panel noted the future workplan.

The Panel noted that any items suggested within the meeting would be considered at the Chairs and Vice Chairs meetings and also at the agenda planning meeting with the Chair of the Panel.

The meeting ended at 6.05 pm

Chair(person) .....

Date Confirmed and Signed .....

Prepared by Democratic Services

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Bath & North East Somerset Council	
MEETING	**Climate Emergency & Sustainability Policy Development & Scrutiny Panel**
MEETING DATE:	**20th July 2020**
TITLE:	**Overview of the Renewal Programme Workstreams**
WARD:	All
AN OPEN PUBLIC ITEM	
List of attachments to this report: 1. Renewal Programme	

1 THE ISSUE

1.1 BACKGROUND

Bath & North East Somerset is starting to move out of the lockdown phase following the COVID-19 Pandemic. Decisions are being made at speed to ensure that we can deliver a response to re-opening the B&NES area safely. The Council has developed a programme of workstreams to deliver our response to re-opening. This was set up 18/05/20 and includes the following 3 workstreams. (Re-opening, Resilience, Renewal Vision).

The Chair of the Climate Emergency & Sustainability Panel requested that the Panel receive an overview of the different workstreams to allow the opportunity for Members to scrutinise the Council's response to delivering these programmes.

2 RECOMMENDATION

The Climate Emergency & Sustainability Policy Development & Scrutiny Panel is asked to;

2.1 Discuss the programme of workstreams and report any comments to inform Cabinet.

3 THE REPORT

The Presentation at the Panel meeting on July 20th will be structured to provide the Panel with the following information: -

3.1 Overview of the 3 workstreams that have been developed.

David Trethewey – Director of Partnership & Corporate Services, will provide an update on the following workstreams:-

1. Re-opening

2. Resilience

3. Renewal Vision (re-opening/resilience/renewal vision)

3.2. Re-opening workstream (Lynda Dean)

The purpose of this workstream is to deliver the recovery plan for safely re-opening Bath and our Towns as and when the current restrictions are lifted, in line with our long- term renewal vision.

Details will be provided in a presentation, which will cover how we manage safety of place and our approach to reopening.

The presentation will cover how we manage safety of place and our approach to re-opening, including:

- Social distancing measures
- Access restrictions
- Licencing
- Business & Skills Support
- Marketing & Communications
- Cultural Activities

Cross over between areas, such as transport, licensing etc. will be addressed in a presentation by Chris Major.

4. STATUTORY CONSIDERATIONS

This report does not immediately give rise to legal implications.

[This section should contain details of any relevant considerations regarding equalities, crime & disorder, sustainability, natural environment, planning, human rights, children, public health & inequalities. It should also specify the legal power or duty that authorises the decision to be made Please refer to the Report Writing guidance for further advice]

5. RESOURCE IMPLICATIONS (FINANCE, PROPERTY, PEOPLE)

There are no specific resource implications from the report as it is an information report to show the current status and future development of the Renewal Programme and associated workstreams.

6. RISK MANAGEMENT

6.1 A risk assessment related to the issue and recommendations has been undertaken, in compliance with the Council's decision-making risk management guidance.

7. CLIMATE CHANGE

7.1 Together, the three workstreams of the Renewal Programme will be critical to delivery of the Council's 2019 commitment to enable Bath & North East Somerset to achieve carbon neutrality by 2030, in the short, medium and longer term. The Renewal Vision workstream, in particular, has tackling the climate and nature emergencies at its heart, recognising that action on these issues will play a central role in the creating a more resilient, diverse and green economic renewal, with all the benefits that flow from that action such as new, green jobs, clean air, more active travel, better access to nature, more vibrant local economies providing better support to the most vulnerable in our communities.

8. CONSULTATION

8.1 This report has been cleared by the S151 Officer and Monitoring Officer

Contact person	David Trethewey (Director – Partnership & Corporate Services)
Background papers	Appendix 1 – Renewal Programme
Please contact the report author if you need to access this report in an alternative format	

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Purpose

To renew Bath and North East Somerset and enable our residents to feel more connected to their locality and have greater opportunity to benefit from a broader based, greener and more resilient economy post COVID 19.

What problems are we addressing?

Covid -19 has highlighted the areas over reliance on low value tourism and retail sectors, which along with education, have been hardest hit by the pandemic. These sectors have also underpinned the Council's financial security through its heritage and commercial estate. These sectors are unlikely to fully recover and this fact, alongside the dramatic economic downturn shows that the area's economic base is not resilient and needs to change.

The pandemic has also had the positive benefit of dramatically improving air quality and re-connecting people to nature. It has also created new partnerships across residents, the 3rd sector and business, who have worked quickly and flexibly together in a short space of time, and who want to build on these changes.

Outline of approach

Establish an area wide Renewal programme to promote the renewal of the B&NES economy and community infrastructure, based on the following principles:

1. *Changing people's perceptions of the area through effective place marketing*
2. *Re-opening the area after lockdown in a way that supports the long term vision*
3. *Use climate investments to support economic recovery and jobs.*
4. *Rapid re-skilling of people who have lost jobs in the retail and tourism sectors.*
5. *Building strong resilient local communities*

Workstreams

In order to ensure this work proceeds with pace and focus the proposal is that we structure the work into three workstreams

1 **Re-opening and renewing our High Streets**
2 **Resilient Communities**
3 **Renewal vision**

Each workstream will have a dedicated Workstream Manager. These 3 managers will operate as a project team to ensure co-ordination across the streams with support from a Programme Manager.

The programme will report to a board meeting weekly that will monitor progress, resolve issues, give strategic leadership and ensure the work is owned and agreed at the appropriate level of leadership.

The programme will be led by John Wilkinson and David Trethewey reporting to the Chief Executive.

Workstream 1 - Re-opening and renewing our High Streets

Purpose

The purpose of the workstream is to deliver the recovery plan for safely re-opening Bath and our Towns when the current restrictions are lifted in line with our long term renewal vision.

Background

1. Re-opening and renewing our retail, cultural and commercial centres is one of three workstreams taking place to respond to the COVID-19 crisis as part of our plan for economic renewal in Bath and North East Somerset.

2. By the end of March 2020 many businesses, charities and cultural institutions had closed their doors or suspended their activities and furloughed their staff and / or stood down their volunteers.

3. Recovery from lockdown is likely to happen in stages, starting with open spaces where social distancing is easier to observe. People will be cautious about visiting indoor and enclosed spaces and these will only open when social distancing can be ensured.

4. Destinations with eye-catching marketing and offering a warm welcome, value for money and the chance to spend time with families and friends in a safe environment will recover more quickly. Visitors will expect to find an infrastructure that meets their needs. Recorded public preferences of things to do upon the lifting of lockdown are feel-good activities followed by meeting for a meal with family and friends. Many will be reluctant to travel by public transport and the ability to get people in and out of Bath and our Town Centres quickly and safely, including by cycling and walking is going to be vital. Food outlets that can offer a take-away or grab-and-go service will recover the quickest.

5. For businesses safe means of access to work spaces in Bath and our Towns is also going to be critical as is knowing whether the amenities they need (e.g. food outlets) will be safely open and available for their staff.

6. Consumer confidence will return for domestic tourism before international tourism. Early audiences are likely to comprise the AB socio economic groups, who are most motivated by cultural and heritage destinations. The retail sector may benefit as pent-up desire to shop is released as restrictions on movement are lifted.

7. Bath should be prepared for the accommodation, retail and F&B offers to look different from when the city went into lockdown. High street businesses that survive will still be in a fragile state and the recovery will be an opportunity to make town and city centres more pedestrian-friendly, experiential and sustainable. These opportunities can be explored by a number of Council services, working with businesses and landlords to discern how this can be achieved.

8. The decision to reopen Bath and our Towns for business will be taken by the Local Resilience Forum based upon Government and Public Health England advice. Reopening is likely to take place over a period of time with a series of events and activities that will animate our High Streets.

9. However the recovery of tourism to pre-COVID-19 volumes will not happen in less than three to five years. Although financially painful, it will present an opportunity to reimagine the visitor offer, make it more sustainable and less dependent on high-volume footfall. It will also be a period of transition as the Council finds ways to be less financially dependent on heritage and commercial property revenues.

10. A range of projects have already started and need to be coordinated through the workstream. These are:

    - **High Street/F&B:** Allison Herbert, Mark Minkley, Paul Garrod, Cathryn Brown, Lynda Deane, Carol Maclellan
    - **Public realm and open spaces:** Mark Minkley, Sara Brooks / Mark Cassidy, Lynda Deane, Joy Roberts (Chair of the Mayor's Honorary Guides)
    - **Culture, entertainment and outdoor events:** Kathryn Davis, Allison Herbert, Ian Stockley, Linda Todd
    - **Marketing, travel trade, accommodation:** Kathryn Davis, Penny Jenkins/ Clare Langrishe, Harry Tedstone
    - **Visitor attractions:** Stephen Bird, Caroline Kay / Claire Dixon, Tom Boden, Chris Stephens, Richard Wendorf (these already meet as an informal museum leaders team in the district) + Penny Jenkins
    - **Car parking, coaches and public transport:** Allison Herbert, Chris Major/ Andrew Dunn
    - **Employment and skills:** Duncan Kerr, Laurel Penrose, Katie Smith
    - **North East Somerset:**

Workstream 2 - Resilient Communities

Purpose

The purpose of this workstream is to plan and deliver an approach to the renewal of our work with the Communities of Bath & North East Somerset to address the issues the incident raised but also to build on the strengths of the community.

Background

1. This workstream is one three workstreams we are setting up as part of the economic and Community recovery and renewal of our places. It recognises the importance of strong resilient communities to the renewal of the area.

2. Bath & North East Somerset is an area combining urban and rural communities and has historically been a prosperous place with active communities playing a strong role in local life. There have however been areas of deprivation and there are differences in the capacity of different localities.

3. A successful response to the incident will require us to work with all our communities and build on the strengths within them to address the impacts we all face. This will require us to work in partnership, engage and where we can encourage positive action. There are likely to be increased needs and demands for services and we need build strong preventative approaches.

4. There is an increasing alignment of agendas around resilient communities, prevention of demand for services, employment and access to employment and the Climate and Nature emergency and low carbon communities.

5. The impact of Covid -19 on the council has been profound and will impact on the services that it can deliver to residents and communities and necessitate a shift in how residents needs are met and the relationship between public services and residents. This change needs to be understood, communicated and the Council its partners and residents and communities work together on solutions.

6. The incident has created new needs for our work but also have identified people and communities that we may not have been previously aware or responding to. Equally responding to the incident has brought together key partners and groups to work in new ways to develop new networks and generate innovative solutions.

7. We need therefore to take a new approach to our work recognising this new reality and building on strengths to enable communities to resolve as many of their issues themselves recognising that the Council will only be able to focus on its key statutory responsibilities

8. We have made progress over the last few years in working with local communities and communities of interest through the local forums and on initiatives such as the Community Libraries programme. However there remains an issue about an agreed approach within Bath.

9. Over the last year the Council with partners had been working on the Compassionate Communities approach and in March the leader officially signed the Council up to the approach

10. This enabled when the incident was declared the partners to come together to create a true, Public, private and voluntary sector response, the Compassionate Communities Hub. This has been a been a great success and we now need to think about how we build on that success as part of our continuing community response and into our renewal phase.

11. Many of the impacts will be into the medium to long term and we need to plan on the basis of a continued but changing need and to work out our shared outcomes and priorities to make our communities as resilient as we can.

The workstream needs to:

- Determine the future approach to the Community Hub
- Develop a community based approach to prevention
- Work on new models for engaging communities in the resolution of their issues
- Build on strengths in existing partnerships and communities
- Identify key areas for interventions and attention by the Council and its partners
- Mainstream Council services into new community led and or based approaches that recognise local need
- Further encourage community led responses to meet need
- Look at how low carbon communities can be further progressed

Workstream 3 – Renewal vision

Purpose

The purpose of this workstream is create a vision for our medium and long term renewal for the area, and to ensure our policies support and deliver that vision and the Corporate Strategy of the Council.

Background

1 This workstream is one three workstreams we are setting up as part of the economic and Community recovery and renewal of our places. It recognises the importance of clear vison and strategic approach to what we are trying to build for the renewal.

2 The vision will need to be evidence based but recognise we won't have all the knowledge of the impacts of COVID 19 for some time

3 The workstream will need to ensure at the Council is working as one on this work, all related policy work will need to be managed through the programme, including (but not exclusively), Climate emergency, transport, spatial planning, nature and green infrastructure, economic development and growth and skills etc

4 The work will need to recognise the key priority around the Climate Emergency and ensure we have principles around a zero carbon renewal

5 The workstream will need to link to strategic partnerships, such as the B&NES Economic Partnership, the WECA recovery and renewal taskforce, the Sub National transport body and the Western Gateway.

6 The workstream will need to manage the issue of short term delivery on issues whilst making more long terms strategic plans. So giving a clear policy steer to the organisation on existing plans, projects and processes will be a key task.

7 The workstream will need to operate as a gateway process for new initiatives ensuring that any work is aligned and supports our vision and is not going to distract our efforts from the priorities

The workstream needs to:

- Undertake analysis of the impacts of COVID and likely future changes
- Develop a coherent vison for the renewal, building on the existing ambitions of the administration
- Agree level of ambition, ie Zero carbon, green economy, etc
- Pull together the people working in this scope to virtual/real team
- Communicate the vision and set up work to deliver against it

Bath & North East Somerset Council	
MEETING	**Climate Emergency & Sustainability Policy Development & Scrutiny Panel**
MEETING DATE:	**20th July 2020**
TITLE:	**Liveable Neighbourhoods**
WARD:	All
AN OPEN PUBLIC ITEM	
List of attachments to this report: 1. Draft LTN Strategy 2. Draft RPS Strategy 3. Draft EV Strategy	

1 THE ISSUE

1.1 BACKGROUND

To support the Councils transport delivery plans and facilitate the delivery of a long term and sustainable liveable neighbourhoods' strategy, the attached Strategies have been developed to align the low traffic neighbourhoods, residents parking and electric vehicle charging outcomes.

The strategies build upon local, national and international best practice and set out the assessment processes necessary to prioritise and deliver strategic schemes in line with the Councils commitments.

The strategies proposed a complimentary approach under the following vision as agreed with Cabinet Members:

> ***Our vision is to create better places across B&NES that promote active travel and public transport use, improve community health and reduce the need for short car journeys.***

2 RECOMMENDATION

The Climate Emergency & Sustainability Policy Development & Scrutiny Panel is asked to;

2.1 review, consider and provide feedback on the draft policies prior to them being taken forward to public consultation, confirming if necessary:

- any changes that should be incorporated; and
- any areas where the panel considers further work is necessary

2.2 note the proposed timeline for adoption of the policies

3 THE REPORT

3.1 The attached strategies have been developed to help facilitate the outcomes of the wider local transport policies of the Council. This includes addressing the climate emergency by improving air quality and helping to achieving a 2030 headline target of a 25% reduction in car trips.

3.2 By reducing congestion through and vehicle intrusion into neighbourhoods, and particularly residential neighbourhoods, they help towards making Bath a world leader in air quality improvement and sustainable transport by ensuring NO2 targets are met, and CO2 emissions reduced in the shortest possible time, whilst meeting the Council's active travel ambitions.

3.3 The strategies presented support the Council's current parking and transportation policies which include:

a) Change the prioritisation of our transport hierarchy to focus on walking, cycling, micro mobility, and public transport/mass transit.

b) An ambitious, fresh look at our transportation strategies, to include greater pedestrianisation, low traffic neighbourhoods, delivering enhanced bus services and infrastructure, extending safer routes to schools, a comprehensive review of our parking strategies

c) Greater and earlier engagement of communities and partners

3.4 In order to develop a fair and balanced package of strategies, consideration has been given to a range of issues including potential impacts on residents; commerce; tourism; carbon footprint and air quality; and transportation.

3.5 **Low Traffic Neighbourhoods**

Low traffic neighbourhoods provide a valuable tool to reconsider how streets are managed to enable inclusive and safer environments, to promote active travel and encourage mode shift away from private cars. Principles of a low traffic neighbourhood focus on reducing the dominance of traffic to deliver attractive, healthy, accessible and safe neighbourhoods for people. This generates opportunities in residential areas to improve conditions for walking and cycling, as well as access to public transport and community spaces.

3.6 **Residents parking schemes**

Residents' parking schemes aim to give priority to permanent residents over commuters and visitors to the area, particularly those with limited off-street parking facilities. However, in order to be able to affect the behaviour change required to respond to the climate emergency and to further encourage commuters and visitors to use more appropriate locations to park (i.e. Park and Ride, off-street car

parks), it was necessary to review the current policies for the delivery of schemes and to align the outcomes with the wider strategic vision.

The strategy reinforces that the cost of administering the scheme is reflected in the cost of the permits, to enable all schemes to operate on a cost-neutral basis. Any surplus generated will be reinvested in the development, review and maintenance of low traffic neighbourhood and parking schemes. This builds the framework on to which any changes to permit costs, including the introduction of C02 based permit charges as and when considered appropriate.

3.7 **Electric Vehicle Charging Strategy**

The Strategy sets out the Council's current position and future strategy on public on-street electric vehicle (EV) charging, recognising that this is a key area of demand and an area where there are likely to be short-term opportunities to deliver improvements. Delivery of on-street EV charging in B&NES is closely aligned with a number of other key policy initiatives being pursued by the Council to tackle the Climate Emergency. In particular, the implementation of low traffic neighbourhoods offer an opportunity for fresh thinking on how road space in residential neighbourhoods is used and is likely to bring new opportunities to deliver on-street EV charging.

This document focuses predominantly on the issues around provision of on-street EV parking in residential areas, recognising that making provision for charging in these areas where the proportion of homes with off-street parking provision is low (as is typical across Bath and other parts of the B&NES area) is a particular challenge.

3.8 **Proposed timescale for adoption**

Formal adoption will be subject to an agreed public engagement and consultation strategy, but an outline timeline is set out below for consideration:

Stage	2020/21						
	June	July	August	Sept	Oct	Nov	Dec
1 – Informal Cabinet	X						
2 – PDS		X					
3 – Public consultation			X	X			
4 – Review of responses				X	X		
5 – Cabinet adoption						X	

4. STATUTORY CONSIDERATIONS

4.1 All schemes will be subject, where necessary, to the statutory Traffic Regulation Order processes and may be open to public objection before implementation.

5. RESOURCE IMPLICATIONS (FINANCE, PROPERTY, PEOPLE)

5.1 The development of the strategies in itself does not commit the Council to expenditure. However, the expectation is quite rightly that from the strategies,

schemes and proposed changes to the neighbourhoods will be developed and implemented on the ground.

5.2 To assist with this, work will be undertaken during the period of the public consultation to develop and confirm the available resources to ensure that the requirements are built within resource planning and funding bids both in year and in future years budget allocation.

5.3 As part of this work, a public forward plan of schemes will be developed and published, setting out the order in which work will be undertake based on the prioritisation of schemes by Cabinet Member and resources available. Additionally, preliminary work by communities will factor into the priority decision making but due to the need to ensure that the schemes are implemented where needed, rather than just where residents may be well organised and used to dealing with Council services, this will not be a key decision criterion.

5.4 Due to the complex nature of schemes, it is likely that changes on the ground will not be seen for between 6-12 months minimum from approval being given to consult on any area. This timeline is set and driven primarily by the statutory processes and work required to deliver a scheme and therefore cannot be shortened significantly, even with additional resources being allocated.

6. RISK MANAGEMENT

6.1. A risk assessment related to the issue and recommendations has been undertaken, in compliance with the Council's decision-making risk management guidance.

7. CLIMATE CHANGE

7.1 As set out in section 3, the attached strategies are in line with the requirements of the climate declaration and the recognition that road traffic plays a significant part in the generation of C02.

8. CONSULTATION

8.1 This report has been cleared by the S151 Officer and Monitoring Officer

8.2 The public engagement strategy is currently under development to ensure that it is in line with the legal and ethical requirements for consultations. This will allow all members of the public the ability to review, assess and comment on the draft strategies and ensure that comments are taken into account prior to the strategies being finalised and adopted.

Contact person	Chris Major (Assistant Director – Highways and Transport)
Background papers	*None*
Please contact the report author if you need to access this report in an alternative format	

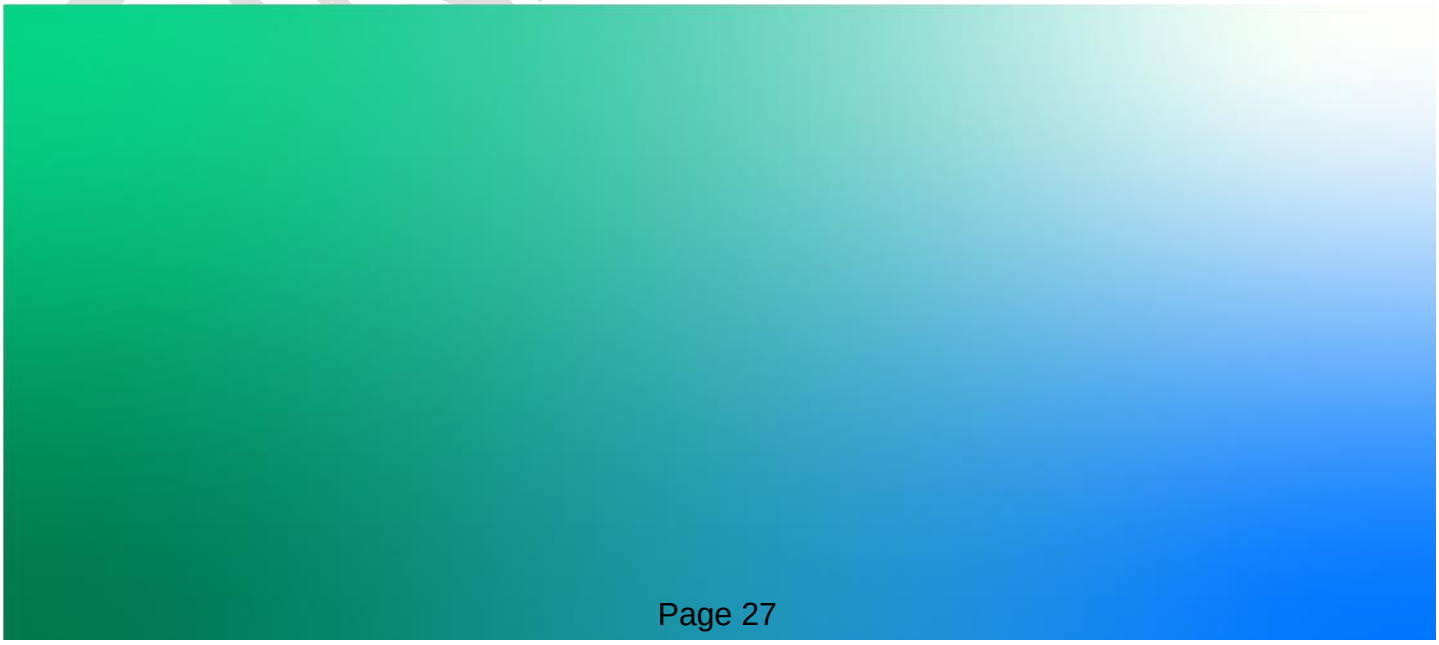
Low Traffic Neighbourhood Strategy

Final Draft Strategy

| V6

May 2020

Bath & North East Somerset



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Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
2	Jan 2019	Revised introduction to strategy	RL	CA		
2.1	Jan 2019	Revised introduction to strategy – following comments from B&NES	RL	LC	CA	
3	Feb 2020	Draft strategy report	EA/LC	RL	CA	
4	Mar 2020	Draft strategy report – following comments from B&NES	EA/LC	CA	RL	
5	Mar 2020	Draft strategy report – following further B&NES comments	EA/LC	RL	CA	
6	May 2020	Draft final strategy report – following B&NES members comments	EA/LC	RL	CA	

Executive Summary

Background

The declaration of a Climate Emergency within Bath & North East Somerset (B&NES) in March 2019 outlined the resolution for the authority to be carbon neutral by 2030. This requires a transformational change in how people choose to travel and how goods are transported across the authority. The necessary revolution in the transport system requires the development of solutions at local level which go beyond the schemes and policies set out in the newly adopted Joint Local Transport Plan 4 (JLTP4) and Getting around Bath Transport Strategy.

B&NES Council recognise the importance of responding to the Climate Emergency, which demands a fundamental step-change in methods of travel by residents, visitors and people who work in B&NES. It requires a major shift to public transport, walking and cycling in order to reduce transport emissions. A wide range of initiatives will play a part in delivering this, with low traffic neighbourhoods identified by the Council as a priority for the future as an important step in delivering the necessary changes across B&NES.

It should be noted that the proposals and principles of this strategy were developed before the Covid-19 pandemic and its emerging effects. The significant reductions in traffic seen within all areas as a result of the Covid-19 pandemic and lockdown has seen increases in people walking to local amenities and key workers cycling to work. As well as a greater focus on improving public spaces for people rather than continuing to allow cars to dominate.

The '*Decarbonising Transport, Setting the Challenge*' paper[1] published by Department for Transport (DfT) in March 2020 states that "*public transport and active travel will be the natural first choice for our daily activities. We will use our cars less and be able to rely on a convenient, cost-effective and coherent public transport network…. Clean, place-based solutions will meet the needs of local people*".

Vision and strategic objectives

Our vision is to create better places across B&NES that promote active travel and public transport use, improve community health and reduce the need for short car journeys.

Strategic objectives

- Improve air quality and respond to the climate emergency;
- Improve public realm and quality of life - creating better places for residents, businesses and visitors, as well as sympathetically accommodating emerging EV infrastructure requirements;
- Enable more local trips by active modes of travel and public transport, through providing easy, safe and comfortable routes within neighbourhoods in line with the wider public health outcomes; and
- Reduce the impact of "rat-running" vehicles along unsuitable residential roads, to support prosperity and improve community connectivity, whilst safeguarding access for residents and the needs of mobility impaired people.

What is a low traffic neighbourhood?

"Low traffic neighbourhoods" are being successfully introduced both across the UK and abroad as a means of tackling traffic issues in communities. They are typically considered in predominately residential areas, where several streets are grouped and organised in a way to discourage through-vehicle traffic or "rat-running". Importantly residents remain able to drive on their streets, park on their streets and receive deliveries although it is noted that strategies should be in place to help reduce car ownership and usage by residents within any low traffic neighbourhood area.

Measures typically used in low traffic neighbourhoods include:

- implementation of speed or carriageway width restrictions;
- partial or full road closures and the use of model filters;

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/876251/decarbonising-transport-setting-the-challenge.pdf

- implementation of bus gates;
- reallocation of road space or on-street parking to improve pedestrian and cycle infrastructure; and
- changes in priorities at junctions.

Key to low traffic neighbourhoods are the opportunities that reclaiming road space can then provide for public realm improvements, such as:

- areas for seating and meeting;
- locations for cycling infrastructure and storage;
- tree planting and green space; and
- locations for on-street EV charging infrastructure.

Ultimately low traffic neighbourhoods, whilst primarily focused on the reduction of vehicle intrusion within an area, are only effective if they also encourage residents within and between those neighbourhoods to consider active travel opportunities, reduce congestion on roads, improve connectivity and make the local environment safer and more attractive for journeys on foot, bike or public transport.

Principles

Low traffic neighbourhoods provide a valuable tool to reconsider how streets are managed to enable inclusive and safer environments, to promote active travel and encourage mode shift away from private cars. Principles of a low traffic neighbourhood focus on reducing the dominance of traffic to deliver attractive, healthy, accessible and safe neighbourhoods for people. This generates opportunities in residential areas to improve conditions for walking and cycling, as well as access to public transport and community spaces.

London Cycling Campaign and Living Streets have developed 'a guide to low traffic neighbourhoods'[2] following the success of projects in London Borough of Waltham Forest and continued roll-out across wider London (as Living Streets), with proposals in Camden, Enfield and Harrow. The guidance outlines key principles for the development of low traffic neighbourhoods, including:

Size: low traffic neighbourhoods should ideally include a group of residential streets, bordered by a main road (those used by LGVs, HGVs, buses and through-traffic), which is walkable within 15 mins (approximately 1km^2).

Location: low traffic neighbourhoods should be in close proximity to key amenities and services, especially key transport interchanges.

Infrastructure: a range of infrastructure can be used to support the implementation of low traffic neighbourhoods which could include modal filters, active mode development and public realm improvements.

Community involvement/engagement: active community engagement should be embedded from the start of the process, through to co-designing elements and continue through the active feedback and monitoring stages.

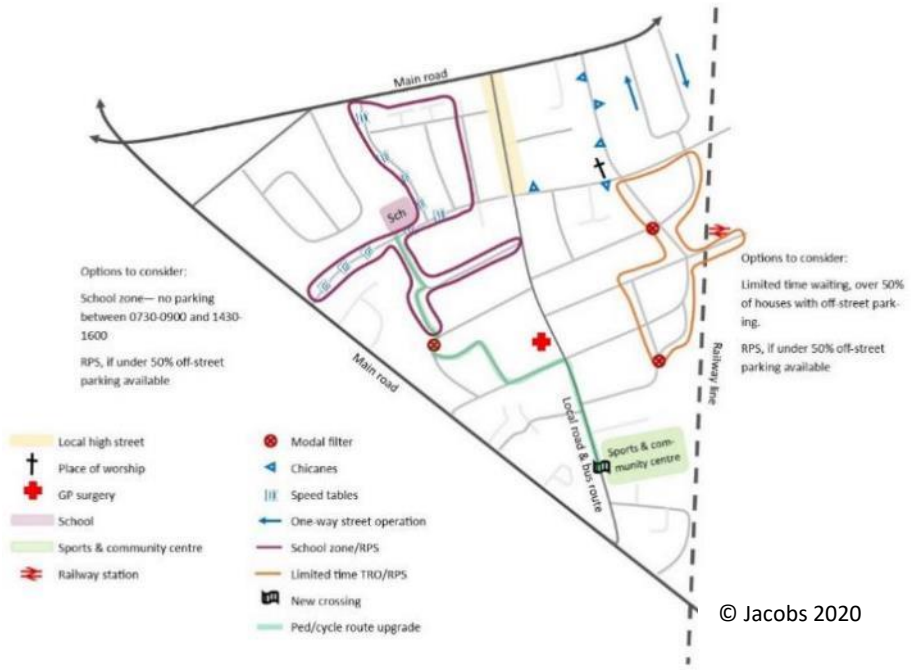
In B&NES, those which are likely to be most suitable include:

- modal filtering of residential streets through bollards, width gates, bus gates or planters;
- public realm enhancements, such as shared space, parklets and green infrastructure;
- alignment or consideration with residents' parking schemes;
- time-limited access restrictions through school streets; and
- blended / "Copenhagen" crossings to reinforce pedestrian and cyclist priority in an area.

It should be acknowledged that many streets, particularly in Bath, are narrow and as part of the implementation of some of these measures, there could be implications for on-street parking capacity. For example, as part of the installation of a modal filter, to ensure sufficient space for turning vehicles, it may be necessary to remove additional parking spaces from residential streets.

B&NES residents' parking scheme policy has been revised to sit alongside this strategy. A review of existing residents' parking zone boundaries may be necessary as part of the development of low traffic neighbourhoods and wider transport strategies, along with the consideration of whether a residents' parking scheme is required in the absence of one.

[2] https://londonlivingstreets.files.wordpress.com/2018/09/lcc021-low-traffic-neighbourhoods-detail-v9.pdf



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Early engagement is a key tenet of delivering low traffic neighbourhoods, it provides the opportunity to inform communities of what the schemes aim to achieve, whilst moderating expectations by outlining the processes involved, levels of influence and potential timescales.

Importantly engagement offers an opportunity to have open discussions about any potential trade-offs.

Measures within B&NES must also be carefully considered in terms of their impact on air quality and heritage.

Given that a CAZ will be implemented in the city centre and AQMAs have been declared across B&NES, it must be ensured that measures will not have a negative impact of the clean air plans and air quality compliance in the long term. Additionally, the heritage city and conservation areas require close consideration to ensure that measures implemented are consistent with the environment through following relevant design guidance and material pattern books.

Low traffic neighbourhoods in B&NES

As the majority of these transport-related problems and issues are more prevalent within urban areas, the predominant focus of implementation for low traffic neighbourhoods is within the city of Bath. Proportionate consideration of these issues in Keynsham/Saltford and other areas within B&NES has been undertaken within this strategy, as there may be potential for some measures or themes of low traffic neighbourhoods to be delivered within streets or smaller geographical areas. Many of the transport issues are multi-layered and interlinked, therefore they could be improved by low traffic neighbourhoods but are unlikely to be directly tackled through these schemes alone.

Outcomes of low traffic neighbourhoods in B&NES include:

- Promote mode shift to more active modes, by increasing walking and cycling uptake of residents for local trips.
- Improved public health through increasing levels of physical activity, getting out within the neighbourhood and choosing not to drive.
- Local air quality improvements by reducing through-traffic on residential roads and encouraging mode shift from private cars to more sustainable modes.
- Improved community and social connectivity through the reduction in traffic on residential streets and providing opportunities to create more public realm and community space.
- Reduced traffic and vehicle speeds, including the reduction in traffic dominated public realm, reduced rat-running traffic and inappropriate routeing by HGVs, and assistance in reducing inappropriate traffic speeds on residential streets.
- Reallocation of road-space to remove the pressure for non-residential parking (through residents' parking scheme), improve public realm and provision for enhanced walking and cycling infrastructure.

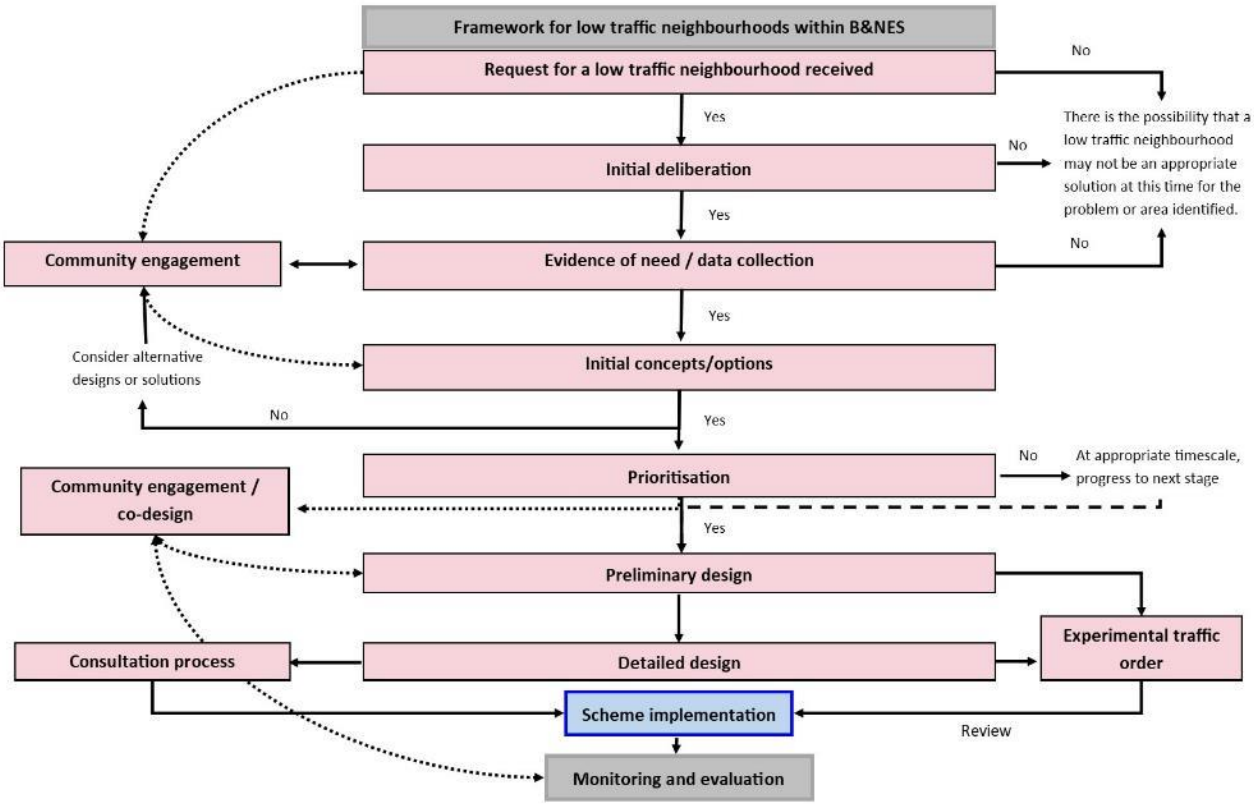
During previous consultations, the promotion of active travel and its uptake have often resulted in responses regarding the topography of Bath and how the steep street gradients can discourage people from walking and cycling more. However, whilst it is recognised that this is a concern for some residents of Bath, active travel for short trips to key local services and public transport links can still be promoted by safer walking and cycling routes through the implementation of low traffic neighbourhoods. The promotion and take-up of electric bikes (e-bikes) and electric scooters (e-scooters) where appropriate and legal also has the potential to overcome some of these barriers to active travel by making it easier to navigate steeper inclines.

Low traffic neighbourhoods should be considered, designed and implemented specifically for the local area and respond to local problems, issues and opportunities. Low traffic neighbourhoods are not about rewarding one group of people

while punishing another, but about making long-term decisions about how people travel, by delivering safer environments for people to travel by a range of sustainable modes. It is important that during the development of low traffic neighbourhoods, cognisance of the location and heritage of the neighbourhood is considered, particularly in the selection of interventions and materials.

This strategy sets out the approach to how B&NES will consider low traffic neighbourhood projects, reinforcing their development and implementation through an iterative, collaborative and holistic process. As proposals come forward and are developed and implemented, the associated ongoing monitoring and evaluation will inform the evolution of the strategy, framework, processes and prioritisation of schemes.

The summary process flow below highlights the broad stages for low traffic neighbourhood consideration and implementation. Section 4 of this strategy provides guidance on consideration of a how a proportional approach should be taken based on the issues experienced, severity and geographical scale. The timeframe for this process will vary on a location-by-location basis.



The initial development of the low traffic neighbourhood framework will further expand this strategy, to provide a basis for communities and B&NES Council to implement low traffic neighbourhoods. Prioritisation against other low traffic neighbourhood proposals, along with wider delivery programme and available budgets will be considered on a six-monthly rolling review.

Contents

1. Vision

1.1 Context

The declaration of a Climate Emergency within Bath & North East Somerset (B&NES) in March 2019 outlined the resolution for the authority to be carbon neutral by 2030. This requires a transformational change in how people choose to travel and how goods are transported across the authority. The necessary revolution in the transport system requires the development of solutions at local level which go beyond the schemes and policies set out in the newly adopted Joint Local Transport Plan 4 (JLTP4) and Getting around Bath Transport Strategy.

B&NES Council recognise the importance of responding to the Climate Emergency, which demands a fundamental step-change in methods of travel by residents, visitors and people who work in B&NES. It requires a major shift to public transport, walking and cycling in order to reduce transport emissions. A wide range of initiatives will play a part in delivering this. Low traffic neighbourhoods are an important step in delivering the necessary changes across B&NES and have been identified by the Council as a priority for the future.

It should be noted that the proposals and principles of this strategy were developed before the Covid-19 pandemic and its emerging effects. However, there are obvious and significant parallels as low traffic neighbourhoods are focussed on improving public spaces for people rather than continuing to allow cars to dominate. The significant reductions in traffic seen within all areas as a result of the Covid-19 pandemic and lockdown has seen increases in people walking to local amenities and key workers cycling to work.

For many, this has reminded us what our streets and public spaces could be like. Families when exercising were able, in many cases for the first time, to cycle on roads that were previously deemed too busy and dangerous under normal conditions. Whilst social distancing has highlighted that pavements in many areas are too narrow, as road space is allocated disproportionately in favour of motor vehicles. The delivery of low traffic neighbourhoods supports residents choosing to walk or cycle to undertake all of their normal tasks, such as a trip to local shop or to school, rather than using car to make the same journey. This change is perhaps once in a generation and provides an opportunity to capture benefits from such a devasting pandemic.

The recent '*Decarbonising Transport, Setting the Challenge*' paper[3] published by Department for Transport (DfT) in March 2020 sets out the Government's position on decarbonising transport to assist in achieving 'net zero' greenhouse gas (GHG) emissions by 2050. With transport playing a huge role in the economy reaching net zero, it outlines the vision of how a net zero transport system will benefit everyone:

"*Public transport and active travel will be the natural first choice for our daily activities. We will use our cars less and be able to rely on a convenient, cost-effective and coherent public transport network…. Clean, place-based solutions will meet the needs of local people. Changes and leadership at a local level will make an important contribution to reducing national GHG emissions*".

Therefore by reducing the intrusion of vehicles into residential areas, this enables the return of neighbourhood streets to the people who live and work there. Low traffic neighbourhoods, in addition to residents' parking schemes where necessary, are one of the key ways in which this could be realised across B&NES; by combating the impact of traffic and on-street parking on residential streets, improving air quality, enhancing connectivity and helping to create an environment which better encourages walking and cycling.

London Cycling Campaign published their '**Climate Safe Streets**' report in March 2020, which whilst focusing on London, outlines some key considerations for encouraging substantial mode shift and enable people to choose non-car modes more easily. '*Streets must become safer and more convenient for walking and cycling; bus travel must become cheaper, more reliable and more convenient; and people must have easy access to zero-carbon shared motor transport as an attractive alternative to car ownership'.*

The report states that the issue is not just about moving traffic, but it is also about parked vehicles. '*In the UK, the average car is in use for around 4% of the time, therefore shifting journeys out of private cars and into more sustainable modes of transport, provides opportunities to free up space currently used by parked cars for cycling and walking infrastructure, shared mobility options and public space improvements'*

This report sets out the strategy for the implementation of low traffic neighbourhoods in B&NES. It draws on case studies and best practice examples to consider how low traffic neighbourhoods could benefit local communities.

[3] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/876251/decarbonising-transport-setting-the-challenge.pdf

1.2 What is a low traffic neighbourhood?

"Low traffic neighbourhoods" are being successfully introduced both across the UK and abroad as a means of tackling traffic issues in communities. They are typically considered in predominately residential areas, where several streets are grouped and organised in a way to discourage through-vehicle traffic or "rat-running". Importantly residents remain able to drive on their streets, park on their streets and receive deliveries although it is noted that strategies should be in place to help reduce car ownership and usage by residents within any low traffic neighbourhood area.

Source: Waltham Forest Cycling Campaign https://wfcycling.wordpress.com/mini-holland/mini-holland-key-issues-successes/)

A low traffic neighbourhood also includes the introduction of a number of measures to encourage non-local traffic to use main roads (those used by LGVs, HGVs, buses and general traffic) by making it more difficult to drive directly between main roads, on what are often deemed unsuitable roads.

Measures typically used in low traffic neighbourhoods include:

- implementation of speed or carriageway width restrictions;
- partial or full road closures and the use of model filters;
- implementation of bus gates;
- reallocation of road space or on-street parking to improve pedestrian and cycle infrastructure; and
- changes in priorities at junctions.

Key to low traffic neighbourhoods are the opportunities that reclaiming road space can then provide for public realm improvements, such as:

- areas for seating and meeting;
- locations for cycling infrastructure and storage;
- tree planting and green space;
- locations for on-street EV charging infrastructure; and
- consolidated delivery points

Ultimately low traffic neighbourhoods, whilst primarily focused on the reduction of vehicle intrusion within an area, are only effective if they also encourage residents within and between those neighbourhoods to consider active travel opportunities, reduce congestion on roads, improve connectivity and make the local environment safer and more attractive for journeys on foot, bike or public transport.

In B&NES there is an opportunity to introduce low traffic neighbourhoods in suitable areas (likely focused on Bath, but also in other areas where appropriate) and to, in parallel, review related policies on residents parking.

1.3 The vision

This strategy has been developed in the context of national, regional and local policy[4], along with the overarching B&NES vision for the future. The vision for low traffic neighbourhoods below looks to reflect the wider aims of local planning and transport policy as well as the key priorities for B&NES in addressing the climate emergency. It also aligns with the purpose, core policies and principles outlined in B&NES Corporate Strategy, adopted in 2020.

Our vision is to create better places across B&NES that promote active travel and public transport use, improve community health and reduce the need for short car journeys.

[4] Appendix A contains the wider policy review

A core principle of this vision is to empower people to make the fundamental step-change in how they choose to travel, by making sustainable choices more accessible.

1.4 Strategy objectives

In order to realise the Vision and facilitate the development of this low traffic neighbourhood strategy, the objectives of the strategy are to:

- Improve air quality and respond to the climate emergency;
- Improve public realm and quality of life - creating better places for residents, businesses and visitors, as well as sympathetically accommodating emerging EV infrastructure requirements;
- Enable more local trips by active modes of travel and public transport, through providing easy, safe and comfortable routes within neighbourhoods in line with the wider public health outcomes; and
- Reduce the impact of "rat-running" vehicles along unsuitable residential roads, to support prosperity and improve community connectivity, whilst safeguarding access for residents and the needs of mobility impaired people.

Best practice examples have advocated the importance of community engagement throughout the delivery of low traffic neighbourhoods. Although not outlined as a strategy objective, a key tenet woven through this strategy and associated policies will be stakeholder and community engagement.

1.5 This strategy

This report outlines the strategy and policies for the use of low traffic neighbourhoods within B&NES, supported by policy considerations for residents' parking. Whilst Bath is the predominant focus of this strategy, the policies will be applicable throughout the B&NES authority area.

The structure of this strategy document includes:

- Principles of a low traffic neighbourhood;
- Low traffic neighbourhoods in B&NES;
- Approach to implementation of low traffic neighbourhoods in B&NES; and
- Summary

This strategy also sits alongside the revised residents' parking policy and the on-street electric vehicle (EV) charging strategy, which reflects opportunities and considerations for EV charging infrastructure within B&NES.

2. Principles of a low traffic neighbourhood

2.1 Introduction

Low traffic or 'liveable' neighbourhoods and streets are on the rise within the UK, as car-dominance and their intrusion into residential areas have become more prevalent, resulting in traffic and air quality concerns which impact the health and quality of life for residents.

Low traffic or 'liveable' neighbourhoods have been introduced in various UK and EU locations, under different guises and at differing scales for several decades. From the large-scale strategies implemented as part of Van den Berg's traffic circulation plan in the Dutch city of Groningen, to the more recent implementation of Barcelona's 'superblocks'. These area-wide strategies involve the fundamental re-prioritisation of road space and access within cities has been changed from car-dominance to pedestrian, cycling and public transport users.

The principles identified as part of these ambitious plans have recently been translated to a more local level, with the 'mini-Holland'-style low traffic neighbourhoods successfully implemented in the London Borough of Waltham Forest and being rolled out across wider London as part of the 'liveable neighbourhood' initiative, including Brixton in London Borough of Lambeth[5]. Smaller projects such as School Streets, examples of which have recently been implemented in Birmingham, are showing positive results in improving local air quality and safety specifically around schools. Overall there is a growing awareness of the role of low traffic neighbourhoods as part of a wider package of measures to tackle transport and environmental issues.

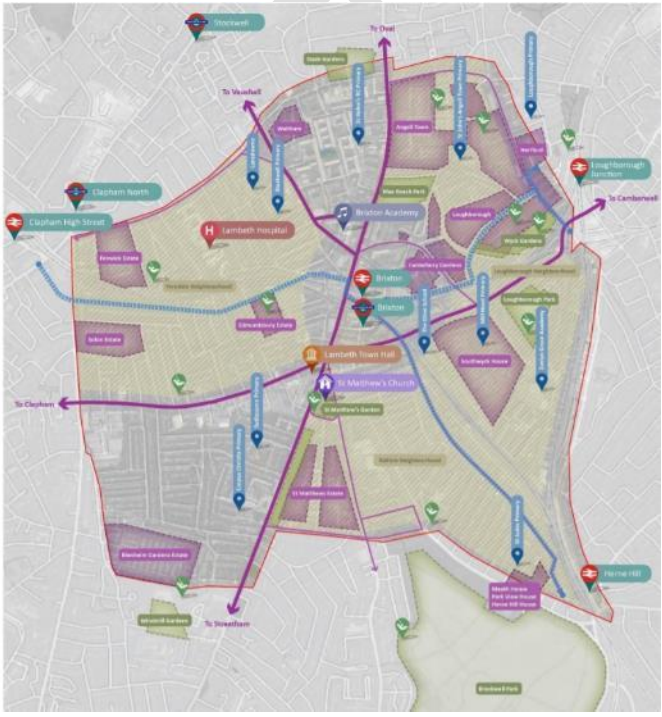


Figure 2-1: Proposed 'liveable' neighbourhood in Brixton

Low traffic neighbourhoods provide a valuable tool to reconsider how streets are managed to enable inclusive and safer environments, to promote active travel and encourage mode shift away from private cars. Principles of a low traffic neighbourhood focus on reducing the dominance of traffic to deliver attractive, healthy, accessible and safe neighbourhoods for people. This generates opportunities in residential areas to improve conditions for walking and cycling, as well as access to public transport and community spaces.

Additionally, low traffic neighbourhoods provide the potential to review on-street parking provision as well as electric vehicle charging considerations, particularly given increasing demand and the wider Climate Emergency.

2.2 Principles

London Cycling Campaign and Living Streets have developed 'a guide to low traffic neighbourhoods'[6] following the success of projects in London Borough of Waltham Forest and continued roll-out across wider London, with proposals in Camden, Enfield and Harrow. The guidance outlines key principles for the development of low traffic neighbourhoods, including:

- Size
- Location
- Infrastructure and interventions
- Community involvement

[5] https://s3-eu-west-1.amazonaws.com/commonplace-customer-files/brixtonlnmap/Brixton%20Liveable%20Neighbourhood%20Project%20Summary.pdf
[6] https://londonlivingstreets.files.wordpress.com/2018/09/lcc021-low-traffic-neighbourhoods-detail-v9.pdf

These key principles have been further developed following a best practice review, to incorporate additional considerations and potential outcomes. It should be noted that these principles provide guidance for the development of low traffic neighbourhoods, not absolute requirements. Therefore, their consideration should also reflect location-specific details and be adjusted as necessary.

2.2.1 Size

Low traffic neighbourhoods should include a group of residential streets, bordered by a main road (those used by LGVs, HGVs, buses and through-traffic). Ideally these groups of streets should be walkable within 15 mins (approximately 1km^2), with the size of a low traffic neighbourhood making it easier for walking and cycling to become an incidental part of a daily routine, either as a main mode of travel or as part of a longer public transport journey[7].

The main road(s), such as A or B roads, bordering an area identified for a potential low traffic neighbourhood should be suitable to (and already carry) through-traffic, bus routes, LGVs and HGVs. This key principle of a low traffic neighbourhood is important in order to encourage traffic which may currently be rat-running/travelling through residential areas to re-route via more appropriate main roads. Local roads (i.e. B roads or classified unnumbered roads) can often include routes within communities that carry bus services and provide access to local shops and amenities.

The illustrations in Figure 2-2 below outline some of the key elements for consideration when determining the size of a low traffic neighbourhood, in the context of rat-running through traffic.

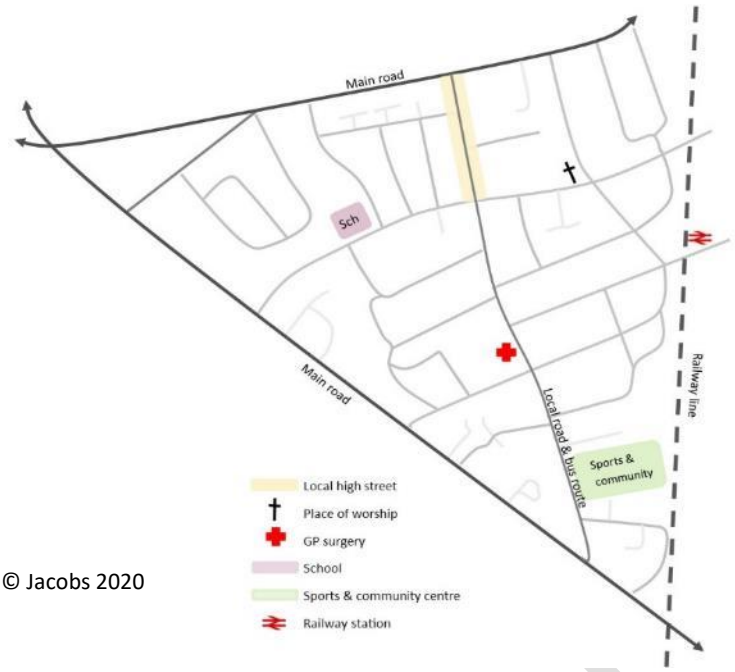
Figure 2-2: Illustrative considerations for the size of low traffic neighbourhoods

When identifying the size of a low traffic neighbourhood or 'cell', an area too small or compact (see blue dashed area in Figure 2-2 above) could push rat-running traffic onto other, equally unsuitable roads within a neighbourhood (identified in orange). Therefore, it is important to consider potential displacement of any issues (i.e. traffic or on-street parking) to neighbouring residential streets.

[7] Aldred, R., Croft, J., & Goodman, A. (2019) Impacts of an active travel intervention with a cycling focus in a suburban context: One-year findings from an evaluation of London's in-progress mini-Hollands programme Transportation Research Part A: Policy and Practice Vol 123, May 2019, Pg147-169 https://www.sciencedirect.com/science/article/pii/S0965856417314866

It is not recommended to have low traffic neighbourhoods across main through roads, due to traffic volumes and speeds. However, where neighbouring 'cells' are located across main through roads, it is vital to provide high-quality pedestrian and cycling links through safe crossing points and cycle infrastructure. Failure to provide these facilities can reduce the number of people choosing to walk and cycle, particularly those with disabilities or who use adapted cycles.

2.2.2 Location



Successful low traffic neighbourhoods, or groups of neighbourhoods, are often in close proximity of key amenities and services and where possible these should serve as the focus of the area. The identification of these elements within an area is crucial in order to understand travel patterns within a neighbourhood and identifying the future opportunities that changes to the travel patterns could bring.

Key amenities and services may include locations such as: schools, doctor surgeries/hospitals, high streets, key businesses/employment sporting facilities, railway stations, supermarkets, places of worship and community centres.

When identifying the amenities and services, it is essential to consider the type of use (i.e. short-stay duration, all-day access), the times of day that attract trips and the number of people using the services.

Figure 2-3: Illustrative considerations for the location of low traffic neighbourhoods - amenities

This is particularly important as some amenities may also be a contributing factor in the problems trying to be addressed with a low traffic neighbourhood. For example, a school will have different patterns for access compared to a supermarket or a leisure centre; with hospitals or medical facilities also having different requirements for access. Importantly, different amenities will serve different geographical areas, as well as attracting trips from outside the neighbourhood. Understanding these issues is critical to ensuring the design of a low traffic neighbourhood does not adversely hinder local access or have other unintended consequences.

This will also help inform whether measures proposed as part of the low traffic neighbourhood are needed on a permanent basis (i.e. speed restrictions or infrastructure) or whether interventions could be considered at particular times of the day (school streets or a residents' parking scheme during typical commuting hours).

It is also vital to consider access within an area, particularly for businesses (loading), cul-de-sacs/no-through roads and one-way streets, as well as continued access for emergency and refuse vehicles along all streets and for public transport vehicles where relevant.

In considering the suitability of areas as low traffic neighbourhoods, recognising constraints in an area can assist in identifying boundaries, along with main roads. For example, railway lines, rivers and canals can contribute to severance within an area due to limited crossings available for pedestrians, cyclists, public transport and vehicles. However, rivers and canals can also provide opportunities for improved connectivity with traffic-free pedestrian and cycling links between low traffic neighbourhoods and key amenities, such as a city centre.

Other constraints to recognise may include the cultural heritage of an area, particularly those designated as Conservation Areas or containing protected sites. Careful consideration of any historic street patterns, access to properties or key landmark features needs to be included when categorising an area, particularly if proposals have the potential to change the character of the area. The identification of opportunities to improve these areas is equally important, where restoration or enhancement of infrastructure can improve the historic context of a neighbourhood.

There may already be measures in place within the area to help alleviate some of the issues a low traffic neighbourhood looks to address. Examples include: existing residents' parking schemes, time-limited on-street parking, speed restrictions or one-way streets. Categorising these factors informs how an area is currently functioning and enables a review of whether they are effective measures to be incorporated into the proposals or whether changes need to be made.

Not every area will be suitable for a low traffic neighbourhood, however there are opportunities for elements or considerations to be incorporated into an area. In some cases, local issues may be better addresses via other methods or solutions. For example, existing residents' parking schemes may need to be altered, in terms of the area covered and the operational time-periods, to account for wider low traffic neighbourhood requirements. Consideration should also be given to the implementation or amendment of a residents' parking scheme, which in isolation may resolve acute issues in certain locations, without the need for a low traffic neighbourhood. The residents' parking policy document provides more information on the process for delivering residents' parking schemes within B&NES.

2.2.3 Infrastructure and interventions

Principles of a low traffic neighbourhood focus on delivering attractive, healthy, accessible and safe neighbourhoods for people. This involves the consideration how streets are managed, which can be via infrastructure changes along with enforcement of speed and parking controls, to enable inclusive and safer environments for residents and business owners. These measures can encourage active travel and mode shift away from private cars, by changing residential areas and improving conditions for walking and cycling, as well as reducing traffic dominance. Further complementary measures that promote active travel and public transport use over private vehicle use can follow.

Figure 2-4: Example of modal filter with active mode promotion[8]

The types of infrastructure and traffic management controls typically used in low traffic neighbourhoods do not stop residents from being able to access their homes, nor delivery and service vehicles accessing dwellings and businesses when required. It is however likely to mean a slightly more indirect route if travelling by car, as the interventions make it is more difficult to drive straight through from one main road to the next (and in so doing, encourage non-essential traffic to use more appropriate routes). Interventions can be implemented on a trial or permanent basis, with changes including:

- *Modal filters* – partial or full road closures, implementation of bus gates or carriageway width restrictions (i.e. width gates);
- *Active mode promotion* – reallocation of road space or on-street parking (secure with rentable spaces) to improve pedestrian and cycle infrastructure, on-street cycle parking, change in priorities at junctions to provide better crossings;
- *Public realm improvements* – reclamation of space following implementation of modal filters and width gates can enable development of options such as parklets, build outs, tree planting; and
- *Encouragement towards low emission vehicles* – through incorporation of EV charging points within low traffic neighbourhoods (making use of reclaimed road space).

[8] Source: https://www.enjoywalthamforest.co.uk/about-mini-holland/

Interventions associated with the implementation of a low traffic neighbourhood could deliver additional opportunities, including the unlocking of space for further public realm improvements (i.e. parklets). Additionally, changing the way vehicles access and move around a neighbourhood could provide opportunities for the review and optimisation of bus routes within the area (in line with Transport Delivery Plan). Particularly if bus gates are considered on some local roads, or modal filters and changes to traffic circulation patterns reduce conflicting traffic flows along bus routes. Improvements to walking and cycling routes within a community may also improve connectivity to bus stops or railway stations.

The various types of interventions that can be used in low traffic neighbourhoods are summarised in Table B-1, in Appendix B. These have been developed from Manual for Streets guidance and best practice research. It has been assumed that implementation of these interventions is predominately within the highway boundary and, where possible, does not impact on third party land/access or highway improvement lines.

Table B-1 does not provide an exhaustive list of measures; however it aims to provide information on the main types of measures, their appropriate applications, details of the potential benefits and disbenefits and considerations for use specifically within B&NES. Improving the public realm within residential areas is another key principle in encouraging more community interaction and providing more attractive environment for walking and cycling. Table B-1 also summarises examples of these measures which would be implemented in conjunction with other interventions. It is likely some of these measures may require the reallocation of road space to facilitate their delivery within the neighbourhood. When requesting a low traffic neighbourhood, communities (through their local councillor) will be asked to sign up to a Community Charter outlining their understanding of the potential requirements and their ongoing commitments to the low traffic neighbourhood.

Interventions have differing costs, whether for implementation or ongoing maintenance and enforcement[9]. Therefore, experimental traffic orders (ETO) are a useful tool to be able to trial proposals enabling the delivery of potential benefits earlier, monitoring impacts and checking the scheme is suitable before a permanent scheme is implemented. It also facilitates engagement with the communities throughout the process.

Once an ETO is in place, there is a statutory six-month period in which objections must be considered. Changes to the scheme can be made during the first six months of the experimental period to any of the restrictions (except charges). However, an ETO can only stay in force for 18-months before a decision must be made on whether to make the changes permanent. If feedback or an objection is received during the period that suggests an immediate change to the trial, the change can be made, and the trial can then proceed. It should be noted that without a decision, the ETO lapses and the changes must be reverted.

The success of low traffic neighbourhoods depends on residents and businesses taking responsibility for the overall scheme and their travel choices. Interventions can only encourage changes in behaviour by removing or limiting through-traffic and delivering the potential for quieter, safer-feeling streets. Complementary scheme initiatives, led by the community, could also be promoted during engagement and the implementation of low traffic neighbourhoods, to inform residents and visitors of their behaviour change opportunities.

If a low traffic neighbourhood is to be trialled using an ETO, this offers the time and opportunity for the community advocates to provide promotional activities to the public, such as cycle maintenance and cycle training sessions or hosting a ‘play street’ for one day with community events (music, games etc.). These activities help show the potential of low traffic neighbourhoods by bringing the community together and promoting sustainable travel.

2.2.4 Community involvement/engagement

A key tenet of all low traffic neighbourhood projects has been active community engagement from the start of the process, including identifying issues and opportunities, through to co-designing elements and active feedback and monitoring.

Initial discussions and engagement with residents and businesses is key to understanding issues and opportunities within an area, what people want from their neighbourhood and how they use their neighbourhood. Residents will likely have different views and priorities to business owners. Engagement is essential to ensure the identification of solutions that are locally supported.

[9] See Appendix C for some indicative costs for interventions, along with wider costs for scheme implementation and engagement.

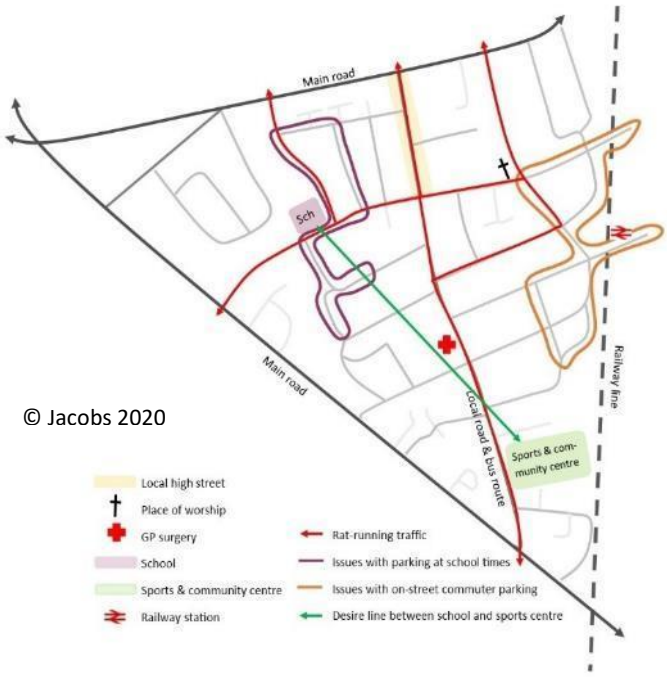


Figure 2-5: Community-led engagement – mapping issues and opportunities

Different methods of engagement are critical to understanding the views of residents and businesses, as perceptions of issues can differ in terms of severity and importance depending on an individual, their perspective and the value they put on certain issues.

For example, someone who works outside of the neighbourhood during the week may not place as much value in school traffic and parking issues during the day, as they do not see it directly impacting them. That same person may be concerned about weekend traffic around the high street, including local air quality concerns, as well as the subsequent rat-running traffic along residential roads to bypass the high street.

Mapping out issues and opportunities (see Figure 2-5) following initial discussions provides a record of engagement and forms a good basis for investigation and option development. Example of methods for engagement have been summarised in Table 2-1 below.

Table 2-1: Example engagement methods

Engagement method/technique		Types of stakeholders
Informal public forums, exhibitions or drop-ins	Share, collect and compile information, enabling topics to be discussed in an informal environment Inform the public of principles May provide an indication of levels of support	Residents, general public, individuals
Workshops	Share and collect information Focused themes for discussions Specific issues to be deliberated and solutions identified	Owners of businesses, hotels/guest houses
Community street audits[10]	Working with residents and businesses to evaluate the quality of street from the view point of people using them Small groups of local residents, traders, officers and Councillors assess the route on foot.	Businesses and residents, Councillors
Discussions with community representatives	Wider conversations with representative groups Empowerment of groups to engage locally	Residents associations, community groups, Councillors
Focused conversations with individuals or groups	Specific issues and requirements to be discussed Working through issues/concerns to identify solutions	Schools, disability groups, GP surgeries, emergency services, Council services
Design sessions/co-design	Working through issues/concerns to identify solutions and creating design responses with stakeholders	Residents, traders/businesses, community groups, schools, disability groups

Active community engagement not only assists in problem identification, but also solution generation (Figure 2-6).

[10] https://www.livingstreets.org.uk/products-and-services/projects/community-street-audits

Key considerations should include the direct and potential indirect impacts of issues to residents and businesses, along with what people want from their neighbourhood that could be achieved within the remit of a low traffic neighbourhood. However, all discussions should be framed within an understanding of the requirements of those with disabilities or specific needs. Engagement with "harder to reach" groups within a community is particularly important, including older people, families with young children, unemployed, people with disabilities and people for who English is not their first language.

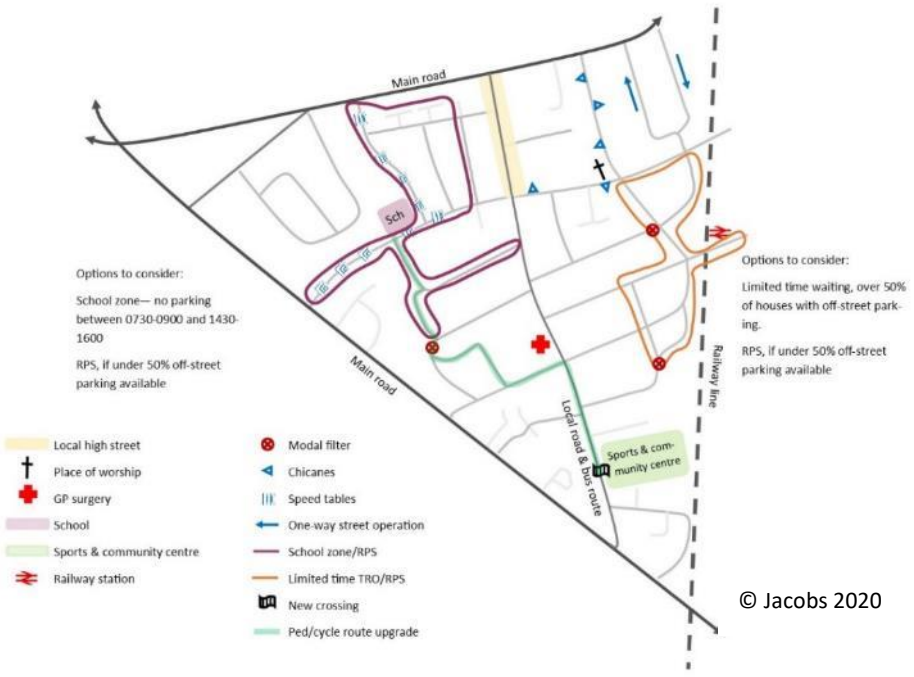


Figure 2-6: Community-led engagement – interventions and proposals

Early engagement also provides the opportunity to inform communities of what a low traffic neighbourhood aims to achieve, whilst moderating expectations by outlining the processes involved, levels of influence and potential timescales.

Importantly engagement offers an opportunity to have open discussions about any potential trade-offs. For example, implementing a low traffic neighbourhood may offer many benefits, but lead to a small loss of parking or an increase in journey length for some trips. These issues are important to discuss early and honestly, particularly in the context of communities taking a lead on scheme development. However when considering the delivery of wider strategic transport aims, a balance will likely be required, with communities not having a veto on the implementation of a scheme where it is required to achieve strategic transport needs.

Best practice example: Walthamstow Village, Waltham Forest

A public consultation period for the permanent scheme lasted for three weeks, with results showing 44% were in favour of the traffic changes and 41% were against; however importantly, 74% were in favour of the safer environment plans with 13% against.

A detailed review of the changes was carried out by the Council around one year after scheme implementation was completed. 49% of residents identified road closures as the least beneficial part of the scheme, however only 17.6% stated they wished to adjust this measure after the scheme was completed. Overall, 55% of residents said they would make no changes to the scheme and only 1.7% said they wish to scrap the scheme and remove all changes.

Further information on the Walthamstow Village example is located in **Appendix C**.

It is also important not to under estimate the amount of engagement required throughout the process. However engagement should also be proportionate to the schemes proposed, particularly responding to the context of the issues to be addressed and level of intervention required.

Best practice examples illustrate that there can be almost as much opposition as support for schemes, particularly in the initial stages of development, with LCC guidance advising Councils to be ready to handle the dissent as well as support.

It is possible that, in some cases, early plans may initially be supported by the community, but concerns and objections may begin to emerge as details progress (and trade-offs become clearer). Therefore, ongoing engagement is important to work through these issues and manage expectations.

Community-led engagement not only reduces pressure on Council resources, but more importantly can be a mechanism to ensure a more inclusive process, reaching groups within communities that may not be engaged and encourage active participation in the development of proposals. It can also inspire a community to take ownership of their area and the proposals going forward[11].

Following implementation of a low traffic neighbourhood, monitoring is an important element to understand whether the scheme is delivering benefits to the area. Depending on the proposed interventions, this could include: further road safety audits, traffic and air quality monitoring, parking surveys, cycling and walking audits etc. It is expected that the Community will continue to lead throughout the period of assessment and ongoing monitoring, supported by the Council with the feedback and data provided from residents and businesses defining the successes and any subsequent concerns.

Best practice example: Turnpike Lane/West Green DIY Streets project, Haringey

The Turnpike Lane/West Green DIY Streets project is a collaboration initiative funded by London Borough of Haringey Council and created by Sustrans. It was a two-year initiative involving working closely with the local community to deliver an affordable, community-led improvement scheme to transform an area around Turnpike Lane Tube Station.

The project aimed to improve many aspects of the neighbourhood including reducing traffic speeds and through-traffic, enhancing the environment and improving residents' sense of community within their area.

Further information on this example is located in **Appendix C.**

2.2.5 Outcomes

Low traffic neighbourhoods have the capability to enhance residential environments and improve community connectivity through reducing the impact of rat-running traffic, improving air quality and encouraging more local trips by sustainable transport modes. Low traffic neighbourhoods have the potential to be good value for money for the outcomes achieved, as interventions themselves can often be lower-cost in comparison to larger-scale infrastructure projects. However, interventions are not the only costs to be considered, with engagement and development costs not to be underestimated as well as the possibility to be resource-intensive, depending on the proposals and level of support.

Promoting mode shift to more active modes

Best practice example: Waltham Forest

"Monitoring (one-year) following the implementation of the Waltham Forest schemes showed that residents were walking over 30 minutes more a week, with cycling increasing by nearly 10 minutes more a week. Reasons for the increase in active mode travel choices provided by respondents included: quieter roads, slower vehicles and an improved environment to walk and cycle within".

Further information on this example is located in **Appendix C**.

Best practice examples of low traffic neighbourhoods within the UK and EU show the benefits of reducing traffic and reallocating road space for community use to provide safer, more attractive environments for walking and cycling.

The climate emergency requires a significant shift in people choosing to walk and cycle for local trips in particular. London Cycling Campaign's 'Climate Safe Streets' report (March 2020) states that a revolutionary approach must be taken to transport in order to begin to tackle climate change. As such, it outlines a range of priorities including the need for infrastructure to be improved to enable people to choose to walk or cycle for their everyday journeys. Similarly, the B&NES Climate Emergency Outline Plan approved in October 2019 recommends a major shift to mass transport, walking and cycling to reduce transport emissions is necessary. It suggests that a modal shift is needed to create 7% reduction in car travel.

Maintaining and improving walking and cycling links have the ability to transform how people consider travelling within their neighbourhoods. Well-designed and well-maintained infrastructure, which limits obstacles (i.e. difficult crossings, street clutter, conflicts with higher volumes of traffic) and prioritises access for non-motorised users can encourage more daily active travel and healthy physical activity. The 'Climate Safe Streets' report (LCC, 2020) details that in the UK, the average car is in use for only around 4% of the time, with parked cars having a considerable impact on space availability on local residential roads. Therefore, by encouraging sustainable travel choices, particularly for local trips, this offers the potential to influence levels of car ownership and the demand for on-street parking.

[11] https://www.haringey.gov.uk/sites/haringeygovuk/files/turnpike_lane_area_diy_streets_statutory_notification_document.pdf

However, as a consequence of people choosing to walk or cycle to work and using their car less (but retaining vehicle ownership), there may be an increase in demand for residential on-street parking, particularly during the day and where off-street parking is not available. This may result in the consideration or review of residential parking controls, such as residents' parking zones.

Provision of cycle parking and its security are essential for supporting the development of cycling as a practical transport choice. By catering for the needs of cyclists of all types, including those with disabilities and adapted cycles, in the form of good quality long and short-stay cycle parking and by providing secure, well-lit locations, people will be reassured that their bicycle will be safe where it is parked and that they will be safe accessing and using the parking. Additional space for secure cycling parking could be unlocked through the implementation of low traffic neighbourhood measures, particularly those interventions which release road space and review the need for on-street vehicle parking.

The example from Blackhorse Village in Figure 2-7 below, shows the opportunities provided by the implementation of a permanent modal filter and associated reallocation of road space. Pedestrian and cycle access has been enhanced and access to properties maintained. Both sheffield stands and secure cycle parking have been provided, with public realm improvements and soft landscaping further improving the streetscape. The scheme has involved the removal of through-traffic and some residents' parking closest to the junction. This example illustrates a high-quality option of potential interventions. Types of interventions and materials used will also be dependent on location-specific requirements and funding availability, with the likelihood of lower cost temporary measures implemented and tested prior to permanent infrastructure changes.

Figure 2-7: Examples of before and after scheme implemented on Northcote Road, Blackhorse Village (Waltham Forest)

The changes delivered through low traffic neighbourhood interventions may also enable opportunities for the review of local bus routes, through the installation of bus gates on local roads improving bus journey times, along with the potential reduction of conflicting traffic movements by implementing modal filters and width restrictions.

Improved public health

The majority of adults in England in 2017 were overweight or obese (64%)[12], with 28.7% classified as obese and a further 35.6% as overweight. There are considerable health risks associated with obesity, including increased prevalence of chronic diseases (such as type-2 diabetes, raised blood pressure, coronary heart disease and strokes) as well as some types of cancer. Obesity is a complex problem that requires action from individuals and society across multiple sectors, including social, economic and physical environments. One important action is to modify the environment so that it does not promote sedentary behaviours, creating places where people are supported to maintain a healthy weight[13].

Regular physical activity is a key contributor to a person's energy balance, helping to prevent obesity and excess weight. Physical activity that can be incorporated into everyday life, moderate exercise has been found to be as effective for weight loss as supervised exercise programmes. Figure 2-8 illustrates the intensity of exercise and types of activities[14].

Daily active travel, such as walking and cycling, can contribute to the recommended 150 minutes of moderate intensity exercise a week for a healthy life. Even lower volume and intensity of physical activity may provide health benefits.

Figure 2-8: Types of physical activity and their intensities with examples of everyday activities and exercises

Local air quality improvements

Air pollution is one of the largest environmental risks to public health in the UK, with an estimated 28,000 and 36,000 deaths a year attributed to human-made air pollution. NOx (oxides of nitrogen) emissions from transport make the largest contribution to the UK total, accounting for 34% in 2016[15]. Public Health England published a report following a review of interventions to improve air quality in 2019. As part of the review, it considered that traffic management interventions, such as access restrictions, have the potential to improve air quality and encourage the public to consider travel behaviour change and active travel options. It also considers that air quality within urban areas is likely to be improved by interventions that promote the uptake of low- and zero-emission vehicles, particularly electric vehicles.

The implementation of low traffic neighbourhoods within Waltham Forest found that levels of exposure to NO_2 significantly decreased between 2007 and 2017. The number of households exposed to more than the EU recommended maximum amount of NO_2 (40µg/m^3) has reduced from 61,316 to 6,377. Figure 2-9[16] illustrates the comparison locations of relevant exposure in Waltham Forest between 2007 and 2017.

[12] https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-obesity-physical-activity-and-diet/statistics-on-obesity-physical-activity-and-diet-england-2019/part-3-adult-obesity

[13] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/256796/Briefing_Obesity_and_active_travel_final.pdf

[14] https://www.gov.uk/government/publications/physical-activity-guidelines-uk-chief-medical-officers-report

[15] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf

[16] Source: Air Quality Consultants (2018), Population Exposure Comparison: 2007 and 2017

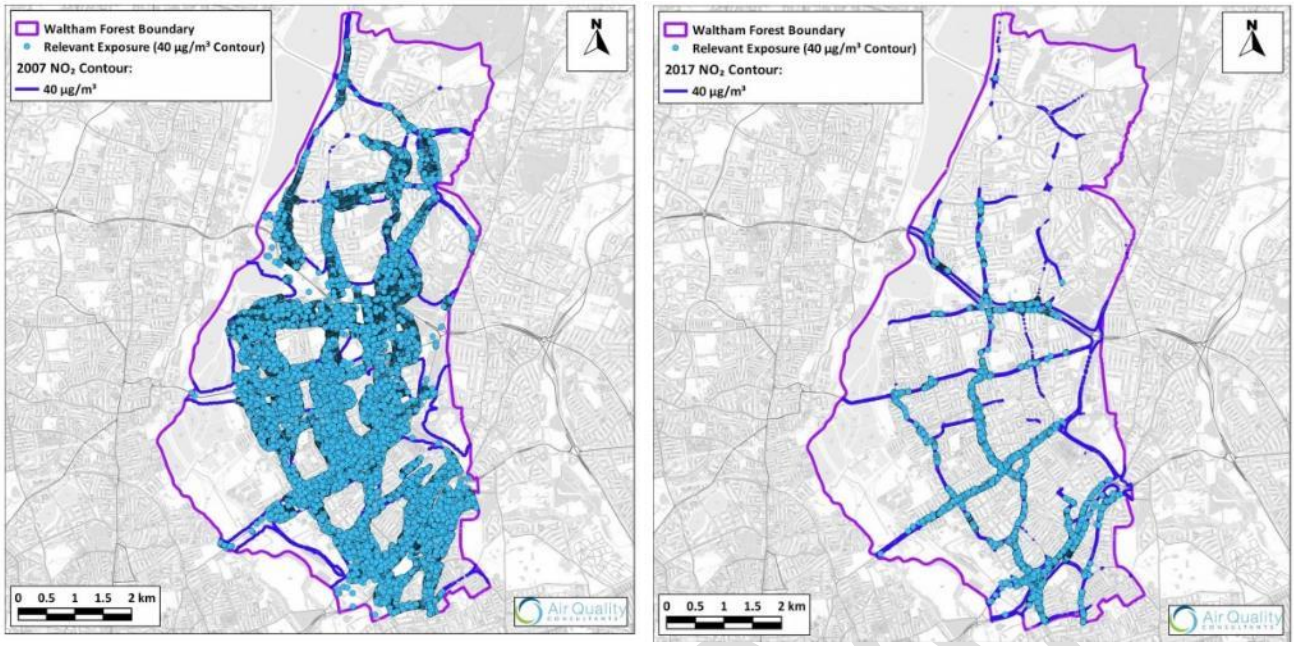


Figure 2-9: Comparison of locations of relevant exposure in Waltham Forest between 2007 and 2017

Improved community and social connectivity

Research undertaken by Donald Appleyard (Liveable Streets, 1981) which was further developed by Hart and Parkhurst (2011[17]) outlined the effects of traffic on the lives of local residents, in terms of social interaction within residential streets.

Their findings detail correlations between the number of connections residents have with neighbours and the level of traffic travelling along the street, with more lightly trafficked streets creating better places for social interaction and community cohesion.

Low traffic neighbourhoods can provide opportunities to enhance the public realm, with enhanced greenspace and parklets transforming road space into places for whole communities that will encourage people to get out and about.

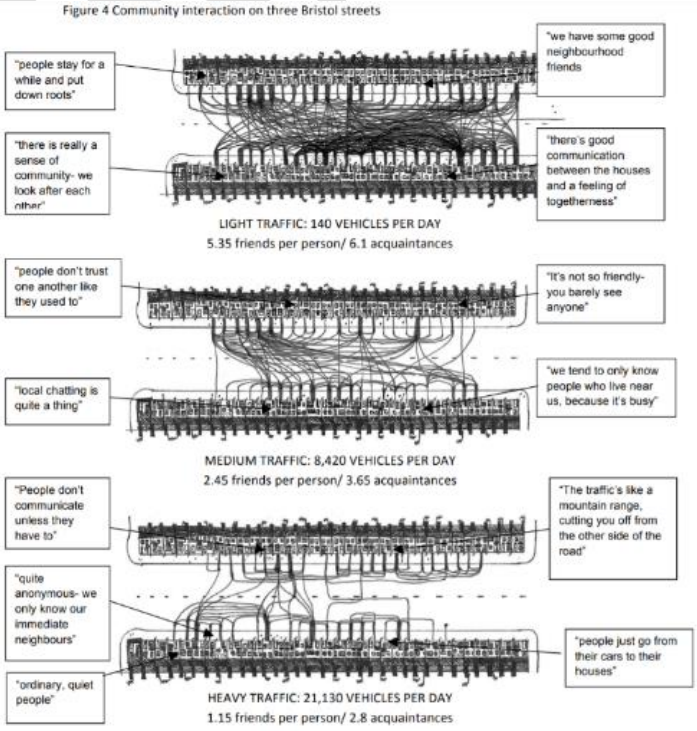


Figure 2-10: Illustration of community cohesion and effects of traffic levels on three Bristol streets (2011)[18]

[17] Hart and Parkhurst (2011) Driven To Excess: Impacts of Motor Vehicles on the Quality of Life of Residents of Three Streets in Bristol UK

[18] Image taken from http://www.eco-logica.co.uk/pdf/wtpp17.2.pdf

Reduction in traffic and vehicle speeds

Best practice example: Ghent Circulation Plan

Whilst on a larger scale than low traffic neighbourhoods, Ghent implemented a city circulation plan in 2017, following a two-year process to strengthen its sustainable mobility policy and give the streets back to the residents.

The proposals involved the enlargement of the city's pedestrian area and creating six distinct areas with no vehicle accessibility between them without using the ring-road.

Before implementation, City of Ghent reported 40% of traffic was through-traffic, not originating or ending in Ghent. Within a year of implementation, the impacts of the plan have seen a 25% increase in bicycle users, 8% increase in public transport use, 12% decrease in car traffic during the rush hour, even 29% fewer cars on the most important routes within the ring road and 58% on residential streets.

In addition, Ghent's police found the number of traffic collisions have decreased by 25% in the city-centre since the plan implementation.

Further information on this example is located in **Appendix C**.

One of the main aims of a low traffic neighbourhood is to reduce, if not remove, through-traffic within a residential area. Making it more convenient to walk and cycle throughout a neighbourhood, than drive within it. Whether it is traffic circulating to find available parking or unsuitable residential streets being used as cut-through routes between main roads and to avoid congestion, these issues can all contribute to traffic volumes and speeds within a neighbourhood.

By making roads more suitable for cycling, walking and public transport services rather than for the private car, not only has the potential to reduce traffic, but can also prompt modal shift particularly for shorter journeys[19]. However, it is acknowledged that not all journeys can be undertaken by active modes or public transport. Therefore careful planning is required to ensure that traffic is reduced, rather that diverted to other inappropriate routes.

Speeding traffic, whilst an issue on its own, also impacts people's perception of dangers on their streets. It can be a determining factor in people choosing not to walk or cycle. It is widely understood that 20mph is the most appropriate speed limit for built-up, residential areas where people live, work and play[20]. As such, any scheme being developed should commence with the understanding that a 20mph speed limit will be implemented throughout the zone as standard, if not already in place, with good reasons needed to vary from this standard.

Benefits of reducing traffic volumes and speeds, through interventions and/or enforcement, not only reduces the number and severity of collisions, it can improve peoples' perception of personal safety.

Economic considerations

Low traffic neighbourhoods aim to improve to public health, local air quality, social cohesion and take up of active travel modes within residential areas, which can all bring economic benefits to an area. Whilst dependent on many different factors, reductions in through-traffic and improvements to the public realm also have the potential to benefit neighbourhoods, in terms of land value uplift.

There are potential disbenefits to those who still choose to travel by car, as there is the possibility of needing to travel slightly further which may increase journey times. There may also be slight increases in traffic along main roads bordering the low traffic neighbourhoods, which could impact on existing congestion, air quality and noise concerns. The benefits of schemes and any resulting impacts need to be considered throughout the development of proposals.

The interventions delivered as part of a low traffic neighbourhood could be considered at a lower cost than other transport schemes. However it is important to ensure that costs are identified for ongoing maintenance of infrastructure and additional resource requirements to enforce certain measures (i.e. residents' parking zones and bus gates). Although additional revenue could be gained through enforcement, it may not be sufficient to guarantee cost neutrality of certain schemes.

Depending on the schemes proposed and the nature of the businesses within the neighbourhood, there could be concerns regarding impacts to business turnover by reducing through-traffic. However there is also potential for increased footfall

[19] https://nacto.org/docs/usdg/disappearing_traffic_cairns.pdf
[20] http://www.brake.org.uk/rsw/15-facts-a-resources/facts/1256-speed-communities

in the vicinity of shops or businesses, as public realm improvements and reduced traffic makes for a more pleasant environment, where people can linger and enjoy their neighbourhood.

3. Low traffic neighbourhoods in B&NES

3.1 Introduction

As outlined in sections 1 and 2, low traffic neighbourhoods can be effective in reducing vehicles on residential streets, therefore enabling people to walk, cycle and use public transport within their neighbourhood. This can contribute to increased safety, reduced traffic flows and speed and improved air quality.

Linking with the policy objectives the Getting Around Bath Transport Strategy and existing local, regional and national strategies, low traffic neighbourhoods have the potential to reduce the impact of vehicles and promote more sustainable modes of travel.

- UNESCO added The City of Bath as a "cultural site" to its World Heritage List in 1987 due to its Roman Remains, 18th Century Architecture, 18th Century Town Planning, Hot Springs, and Landscape Setting
- While 35% of car trips within B&NES are less than 5km whilst these contribute to congestion and poor air quality, they account for just 7% of total distance travelled. There is huge potential to encourage mode shift for these shorter trips.
- 21% of travelling time in the Bath, Bristol, North Somerset and South Gloucestershire region is spent at a standstill.
- The average car occupancy rate within Bath is 1.1 persons per car.

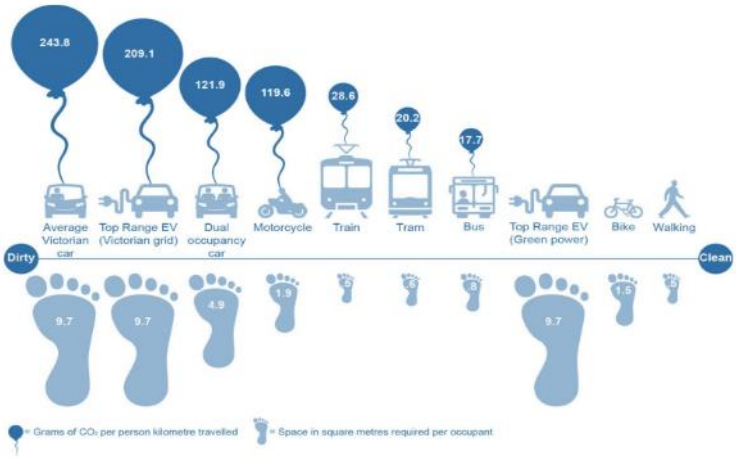


Figure 2.71: Carbon footprint and space required (Source: Institute for Sensible Transport)

The B&NES Public Realm and Movement Strategy outlines the vision for a bold and innovative approach, where old hierarchies of car and pedestrian are reversed, giving people, cyclists and public transport priority access. This is further supported within the B&NES Parking Strategy where parking, particularly long-stay, is placed at the bottom of the road space hierarchy.

This, in line with the Climate Emergency declared within B&NES, has the potential to encourage mode shift, reduce carbon emissions, improve air quality and benefit the heritage city.

Figure 3-1: Carbon footprint and road space required per mode

Figure 3-1, produced by the Institute for Sensible Transport[21], highlights how overall walking and cycling are most efficient in terms of the road space required and CO_2 emitted per kilometre.

In order to support policy objectives and address local issues across B&NES, opportunities to introduce low traffic neighbourhoods in suitable areas should be considered. Existing and emerging policies should be considered alongside low traffic neighbourhoods such as existing policies on residents' parking schemes (also known as residents' parking zones) and emerging policies on-street electric vehicle charging, which have been reviewed and developed to compliment this strategy.

3.2 Policy alignment

The implementation of low traffic neighbourhoods within B&NES is closely aligned with wider policy at both the national and local level. Table 3-1 highlights the current main policy linkages, showing how low traffic neighbourhoods would help to support the achievement of aims and ambitions set out in existing adopted policy. Notably the table highlights the importance that national, regional and local policies place on enabling mode shift away from the private car, through solutions which encourage active modes but retain local access. The implementation of low traffic neighbourhoods offers huge potential to deliver against these aims.

Generally, adopted policies outline how moving away from the prioritisation of the private vehicle can improve our health by encouraging active travel and contributing to improvements in air quality. It is also highlighted in recent and emerging policies that encouraging sustainable modes of transport is required due to the Climate Emergency and to enable us to meet national and local targets. **Appendix A** provides a full review of the current policy context.

[21] https://sensibletransport.org.au/

Table 3-1: National, regional and local policies supported by low traffic neighbourhoods

Existing policy	How low traffic neighbourhoods will help achieve these policy aims
National Policies	
National Planning Policy Framework	The low traffic neighbourhood strategy aligns with key objectives of the NPPF, by acknowledging greater priority for pedestrians, cyclists and access to public transport, thus promoting sustainable transport and healthy communities. It highlights the importance of policies lowering car usage and pedestrian / cyclist / vehicle conflicts to maintain the character, activities and healthiness of places.
Clean Air Strategy 2019	A Class C CAZ is being implemented to improve air quality within Bath, in line with the national Clean Air Strategy. At consultation, concerns were raised about the diversionary impacts as vehicles look to avoid the charging zone. As such the introduction of low traffic neighbourhoods could help to reduce concerns and impacts of this.
The Clean Growth Strategy	Low traffic neighbourhoods would help to support a reduction in overall vehicle trips and encourage a shift to more sustainable modes such as walking and cycling.
Road to Zero	The Road to Zero supports a reduction in greenhouse gases, specifically through reducing vehicle emissions and prompting cleaner vehicles on UK roads. The low traffic neighbourhood strategy similarly supports a reduction in vehicle emissions.
Decarbonising Transport, Setting the Challenge	The Decarbonising Transport strategy sets out aims to deliver a net zero transport system which include accelerating a modal shift from cars to public and active modes. Through prioritising walking, cycling and public transport, low traffic neighbourhoods can help support the delivery of the Decarbonising Transport report.
Public Health England Strategy	The Public Health England strategy outline the aims for improvements to health, particularly through enhancements to air quality and reduced obesity. It acknowledges the significance inequalities in health. The low traffic neighbourhood strategy supports the aims and should be considered in line with health inequalities.
Regional / Local Policies	
West of England Joint Local Transport Plan 4 2020	Sustainable forms of travel are central to this low traffic neighbourhood strategy. This strategy supports the five objectives in the JTLP4 through encouraging walking and cycling, decreasing car usage for shorter trips therefore improving air quality, health and places. The delivery of low traffic neighbourhoods in B&NES will directly deliver against the JLTP policy on local connectivity which aims to take opportunities "*to create 'road cells' in residential areas, where groups of streets are closed with limited access points/one way (with contraflow for cyclists), or bus gates, residential traffic restrictions to manage rat-running and provide a quieter space for residents, pedestrians and cyclists*.".
West of England Local Cycling and Walking Infrastructure Plan 2020	The Local Cycling and Walking Infrastructure Plan seeks to identifying the walking and cycling routes to be prioritised for future investment, therefore developing long-term plans for improvements. It supports modal shift to walking and cycling through infrastructure improvements which will also be supported through low traffic neighbourhoods.
West of England Bus Strategy 2020	The West of England Bus Strategy identifies how bus services could help to reduce congestion and carbon emissions regionally. It seeks to improve connectivity and reliability of the bus network whilst decreasing journey times with the aim of doubling passengers by 2036. The delivery of low traffic neighbourhoods could support this through encouraging modal shift.
Bath and North East Somerset Corporate Strategy 2020 -2024	The low traffic neighbourhood strategy links directly to the key commitments and the three principles within the draft Corporate Strategy: "*We want to prepare for the future, deliver for local residents and focus on prevention*". The delivery of low traffic neighbourhoods will also help to support a modal shift and promote good health.
The Getting Around Bath Transport Strategy	The low traffic neighbourhood strategy aligns with objectives in the Getting around Bath Transport Strategy by prioritising sustainable transport modes and safeguarding the historic environment. It will enable shifts in travel behaviour to walking from motorised modes, through creating environments in which the walking and cycling is prioritised over cars.
Existing B&NES local plan (Core Strategy and Placemaking Plan)	The low traffic neighbourhood strategy aligns with aims to reduce the need to travel by car and encourage walking and cycling through increasing attractiveness. It will support the objective to deliver well connected places though increasing local active permeability.
Emerging B&NES local plan	The Emerging Local Plan is supportive of improving and providing walking, cycling and public transport infrastructure. Policy KSM5 states how identified walking and cycling links could be considered to create healthy neighbourhoods and a shift to active travel modes. Low traffic neighbourhoods align with this policy.

Existing policy	How low traffic neighbourhoods will help achieve these policy aims
The Medium-Term Financial Strategy 2019	Low traffic neighbourhoods would support a key theme for the Council - "*Delivering for Residents*". This theme includes a focus on reducing congestion and the impact of cars on residential streets through better traffic management and reductions in rat-running.
B&NES Health and Wellbeing Strategy	The Health and Wellbeing Strategy and low traffic neighbourhood strategy both aim to increase travel by active modes which will help to contribute to improvements in public health and creating healthier and sustainable places.
Shaping Up! Healthy Weight Strategy	The Shaping Up! Healthy Weight Strategy aims to increase opportunities for increasing physical activity which could be directly supported through increased provision of active modes infrastructure. Through considering the objectives and aims in the strategy, the low traffic neighbourhood strategy supports it.
Public realm and movement strategy	The low traffic neighbourhood strategy aligns with the aim to restructure the vehicle hierarchy placing higher importance on people and pedestrians than on cars as well as aims to improve the public realm.
World Heritage Site Management Plan	The World Heritage Site Management Plan identifies congestion as a major issue and aims to promote less car use and to close key streets to vehicles whilst encouraging walking to improve air quality and quality of life for residents and businesses, this directly aligns with the broad aims of low traffic neighbourhoods.
Bath City-wide Character Appraisal	The document outlines the 22 character areas recognising the World Heritage Site, Hot Springs, Conservation Areas, Green Belt, Areas of Outstanding Natural Beauty, Listed Buildings, Ancient Monuments and historic landscapes. Consideration of these areas is required in the development of a low traffic neighbourhood to establish suitable interventions.
WaterSpace Project	A low traffic neighbourhood should consider the WaterSpace project which highlights water corridors around Bath as potential routes for improved connectivity, especially for active model travel.
Balancing Your Needs: A parking strategy for Bath and North East Somerset	The Parking Strategy could support the implementation of a low traffic neighbourhood through the encouragement of a reduction in car dependency. It supports, where appropriate, the implementation of residents parking zones which could be alongside, instead of or replaced by a low traffic neighbourhood.
B&NES Climate Emergency Progress Report	The low traffic neighbourhood strategy would support a reduction in car use and modal shift.
Bath Clean Air Plan	Changes to traffic movements across wider Bath may feed into the demand for low traffic neighbourhoods from communities across the city. Any potential travel changes as a result of the CAZ have been considered as part of the development of the strategy and associated policies.
Air Quality Action Plans for Keynsham and Saltford	The low traffic neighbourhood strategy considers the changes to traffic management and improvements to active modes infrastructure as a result of the Air Quality Action Plan.

3.3 Opportunities for low traffic neighbourhoods to address issues in B&NES

This section draws attention to the transport-related problems and issues identified across B&NES which low traffic neighbourhoods, alongside wider packages of transport measures, could address. These issues include air quality and public health concerns, car dominance (particularly in the city of Bath) and inappropriate routeing and speeds of vehicles in residential areas. In residential areas, low traffic neighbourhoods may combat and address these issues for local residents by reducing through-traffic and encouraging walking and cycling.

As the majority of these transport-related problems and issues are more prevalent within urban areas, the predominant focus of this section is the city of Bath. Proportionate consideration of these issues in Keynsham/Saltford and other areas within B&NES has been undertaken, as there may be potential for some measures or themes of low traffic neighbourhoods to be delivered within streets or smaller geographical areas.

Many of the transport issues are multi-layered and interlinked, therefore they could be improved by low traffic neighbourhoods but are unlikely to be directly tackled through these schemes alone. However, improvements to tackle these wider issues may also benefit, support or shape schemes proposed through low traffic neighbourhoods.

The problems discussed below have been identified and collated through a range of means including policy research (such as the emerging B&NES Local Plan which outlines the key transport challenges across B&NES), communication with local

B&NES officers and using local knowledge. Any additional local issues and the significance of these should also be considered before and during the development of a low traffic neighbourhood, as well as after their implementation to ensure that existing problems are not exacerbated or new issues created.

3.3.1 General mode shift improvements

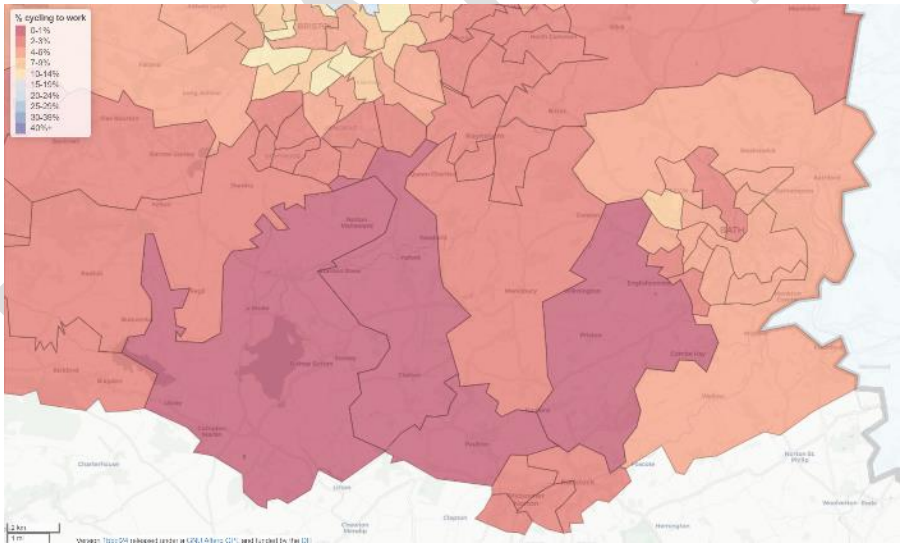
Generally, low traffic neighbourhoods seek to increase modal shift to public transport, cycling and walking. As such, improvements should identify opportunities to encourage uptake of the existing services and infrastructure as well as provide new complimentary measures.

When considering public transport, the existing network and access to services should be reviewed within the area to identify any opportunities for enhancements. This could include bus gates on local roads (carrying bus routes) within a low traffic neighbourhood, active mode link improvements to railway stations or bus stop enhancements. Modal filters could also be considered, which could reduce conflicting movements between general traffic and buses, to improve bus journey times.

The geography and topography of B&NES should be noted when considering opportunities to encourage modal shift. The difference between urban areas, such as Bath and Keynsham and the more rural areas of B&NES, in terms of average journey distances, mode choice for commuting and availability of public transport services, all impact on ability and opportunity to travel more sustainably.

The DfT have funded a Propensity to Cycle Tool (PCT)[22], which can be used as a high-level assessment of current cycling levels and the latent potential to cycle within B&NES. The PCT is an open-source, freely available tool which provides estimates of cycling potential under a range of scenarios. The PCT estimates the cycling potential for commuting and travel to school, which can be used to inform the potential for modal shift within an area. The tool uses origin-destination data to identify trip potential to switch to cycling, based on trip distance and hilliness (local topography).

Figure 3-2 and Figure 3-3 respectively show the current level of cycling to work in B&NES (using Census 2011 data) and to school (using school Census 2011 data, not including private schools). The figures illustrate the current cycling levels in Bath are greatest to the west of the city for commuting and south of the city of school travel. Whereas cycling to school attributes to up to 14% of journeys to school in Saltford and Keynsham, the highest in B&NES, with cycling trips to work lower in these areas.



[22] https://www.pct.bike/

Figure 3-2: Current levels of cycling to work in B&NES (middle super output area, Census 2011)

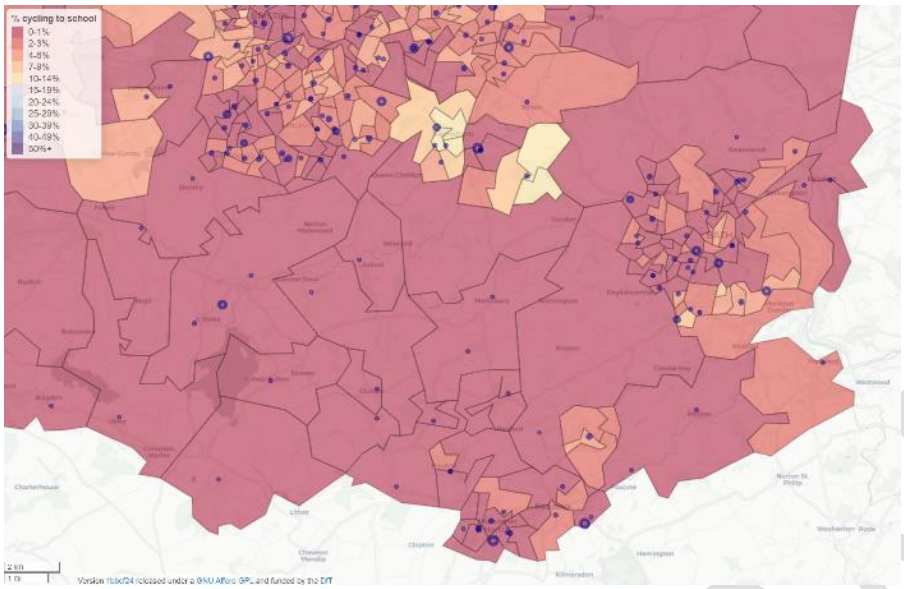


Figure 3-3: Current levels of cycling to school in B&NES (lower super output area, Census 2011)

Some of the PCT scenarios[23] include: UK government targets (to double cycle uptake); 'Go Dutch' (represents what would happen if people in B&NES were as likely as Dutch people to cycle a trip of a given distance and level of hilliness) and ebikes (additional increase on 'Go Dutch' scenario that would be achieved through the widespread uptake of electric cycles). The scenarios do not estimate the impact of specific schemes or interventions.

In developing a low traffic neighbourhood, the PTC tool could be used to inform the likeliness to cycle within the area taking into account the local attractors (such as work places and schools) and topography (hilliness).

3.3.2 Bath

Traffic-dominated public realm

As highlighted in the Public Realm and Movement Strategy, "*over the past century, the increasing dominance of the motor car has done much to damage the character and quality of public space and public life across the world*". This has had particular impact within Bath as a World Heritage Site as the dominance of the car in the city has resulted in the decline of the public realm and the erosion of "*its sense of order, coherence, clarity of design and quality*".

The traffic dominance within Bath, intertwined with other constraints, have resulted in the city centre and central neighbourhoods being designed around the prioritisation of the motor vehicle. Pedestrian, cycling and public transport provisions have been constrained, with movements using these modes often constricted. As such, the attractiveness of travelling via these modes has not been acknowledged or enhanced, which reinforces habits for travelling via private car. The Public Realm and Movement Strategy highlights that this contributes to high levels of air pollution, stress for pedestrians, cyclists and drivers, as well as pedestrians using a limited number of overly crowded routes.

Low traffic neighbourhoods can help to reduce the traffic-dominated public realm in local neighbourhood areas through discouraging through-traffic and designing and prioritising the streetscape around walking and cycling measures predominately.

Walking and cycling uptake

In 2001, approximately 35% of Bath residents working within Bath travelled to work on foot. By 2011, this figure had increased to approximately 44%, with walking to work identified as the primary mode of transport for those living within Bath. In 2011 approximately 31% of Bath residents working within Bath drove to work. As such, the transport strategy

[23] More information on scenarios is available: https://npct.github.io/pct-shiny/regions_www/www/static/03a_manual/pct-bike-eng-user-manual-c1.pdf

highlights the potential to expand and improve walking opportunities to further encourage walking for short trips rather than driving. Encouraging people to walk and cycle more can also contribute to their recommended levels of weekly exercise.

Low traffic neighbourhoods could help to encourage a modal shift to walking and cycling through increasing the attractiveness by creating an environment in residential areas which is more conducive to walking and cycling, and specifically supporting the development of walking and cycling infrastructure. This could include additional crossings and cycle storage (on-street, secure), along with prioritised safer routes of pedestrians and cyclists (including electric bikes and people using adapted cycles), which may prompt a shift to traveling by active modes for shorter trips. There may also be potential to consider additional micro-mobility modes, i.e. electric scooters (e-scooters), following the outcomes of future consultation and possible trials by West of England Combined Authority (WECA) and the Department for Transport.

During previous consultations, the promotion of active travel and its uptake have often resulted in responses regarding the topography of Bath and how the steep street gradients can discourage people from walking and cycling more. These steep gradients, along with the severance resulting from the limited locations to cross the railway line, river and canal, have all been identified as deterrents or barriers to walking and cycling within the city of Bath. It should be noted that one of the main walking and cycling routes through the city is along the valley floor from which walking and cycling routes up to the plateaus of Bath and other destinations along the way can be accessed.

However, whilst it is recognised that this is a concern for some residents of Bath, active travel for short trips to key local services and public transport can still be promoted by safer walking and cycling routes through the implementation of low traffic neighbourhoods. The promotion and take-up of electric bikes (e-bikes) also has the potential to overcome some of these barriers to active travel by making it easier to navigate steeper inclines.

The PCT enables a high-level assessment of set scenarios within Bath to understand different levels of potential mode shift to cycling, whilst accounting for journey distance and topography. Figure 3-4 shows the potential for cycling to work in Bath that could be achieved if government targets (to double cycling uptake) are met. Figure 3-5 shows the potential for cycling to work in Bath under the 'Go Dutch' scenario, whilst Figure 3-6 shows the potential for cycling in Bath if there is a greater uptake in ebikes.

The figures highlight how there is a potential for cycling to make up 30-40% of journeys to work in some areas in Bath. It also demonstrates that hillier areas such are Lansdown and Claverton Down are less likely to have large numbers of cyclists, and therefore mode shift to cycling in these areas may be less attainable without the assistance of ebikes.

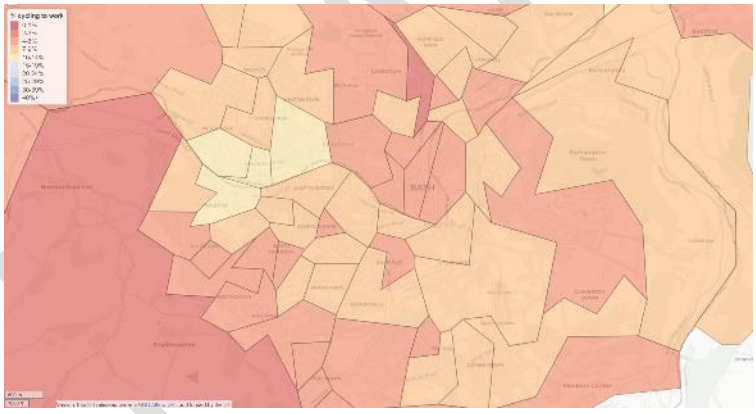


Figure 3-4: Levels of cycling to school in Bath under Government target (near market) scenario

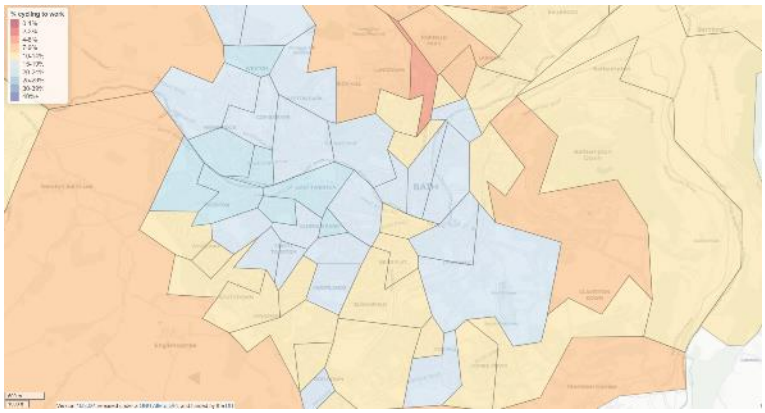


Figure 3-5: Levels of cycling to work in Bath under 'Go Dutch' scenario

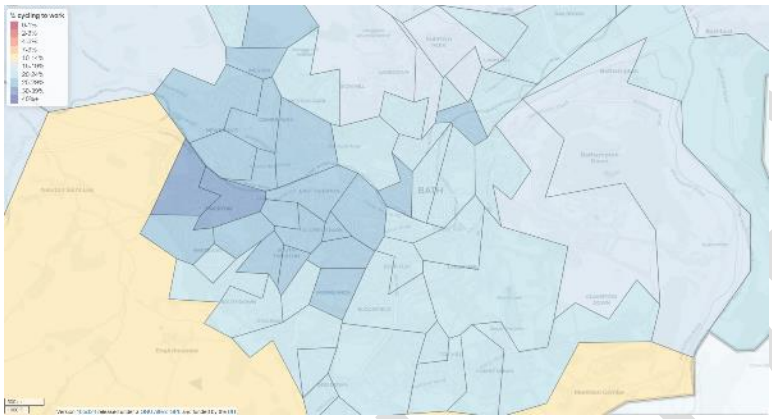


Figure 3-6: Levels of cycling to work in Bath under 'ebikes' scenario

Rat-running traffic and inappropriate routeing by heavy goods vehicles

The B&NES Corporate Strategy approved in February 2020 identified that a key theme for the Council was "*Delivering for local residents*" which included a focus on reducing congestion and the impact of cars on residential streets through better traffic management and reductions in rat-running.

Rat-running traffic is one of the main issues reported to the Council by local residents, particularly within Bath city centre. In some areas of the city, non-local traffic uses residential streets and inappropriate routes to bypass congestion and queues on main roads.

The prevalence of queuing traffic on main roads, particularly in the morning and evening peaks, can prompt drivers to travel via residential side streets potentially taking a longer route to avoid slow moving or standstill traffic. Extra traffic from rat-running can contribute to high traffic in residential streets which discourages active travel and worsens air quality.

Through recent CAZ consultations, rat-running and through-traffic has been identified as problematic on residential streets within the Oldfield Park and Twerton areas of Bath, as traffic cuts between A367 Wells Road/Wellsway and A36 Lower Bristol Road. Similarly, residents within Larkhall and Camden areas have also raised the issue of rat-running traffic between the A46 and A4 London Road. As well as people living within Pulteney Estates describing issues with traffic trying to queue jump between A36 and Bathwick Street particularly at peak times.

The consultation undertaken as part of the proposed CAZ scheme also showed that residents have concerns that the introduction of a charge for non-compliant vehicles may exacerbate this issue (albeit that under a Class C CAZ, the impact may be limited due to cars not being charged). Particular concerns about rat-running were mentioned in proximity to schools, parks and residential areas.

The Transport Delivery Action Plan for Bath highlights that 35% of car trips within B&NES are less than 5km, whilst contributing to congestion and poor air quality, they only account for 7% of the total distance travelled in B&NES. The Action Plan also stated that there are lower levels of through-traffic in Bath than previously thought, with around 75% of people driving to work within Bath living outside the city boundary.

However, a recent ANPR survey in Bath identified the origins and destinations of vehicle movements across Bath, which showed that 30-50% of total car trips were made entirely within Bath. This indicates that while there are low levels of commuting by car within Bath by residents, there are much higher levels of short distance car use for other trip purposes – such as leisure, accessing healthcare and shopping.

The Transport Delivery Action Plan also outlines that Bath is a key freight origin and destination, resulting in relatively high volumes of freight traffic on key corridors (including on the A36 and A4 London Road); with LGVs/HGVs representing 15% of the total traffic volume on the A36 and 20% of total traffic volume on the A4 London Road. However only 12% of LGV and 9% of HGV traffic is through-traffic, with the majority of freight traffic on Bath's roads stopping somewhere within Bath.

Through the CAZ consultation, residents also raised concerns about HGVs within Bath suggesting that many used Bath as a cut through between the strategic road network. Residents were particularly concerned about the implications that the Bath CAZ could have for HGVs on residential roads, as they perceived that HGVs could be encouraged to avoid paying charges for travelling through the zone by using inappropriate residential routes. A number of locations in Bath currently have HGV or weight restrictions.

Low traffic neighbourhoods can contribute to tackling high volumes of non-residential traffic in residential neighbourhoods through measures to discourage traffic. It should be noted that measures to discourage traffic through residential areas must be proportionate and not unduly prevent essential traffic from accessing key attractors.

Inappropriate traffic speeds on residential streets

The dominance of traffic on residential streets is increasingly seen as detrimental to opportunities for better use of public space and safer environments for pedestrians and cyclists. In particular, drivers who travel at higher speeds are known to have less time to identify and react to what is happening around them, therefore taking longer to stop. Consequently, if a collision occurs, it is likely to be more severe particularly to non-motorised users.

Between 2011 and 2016 B&NES designated nearly 1,500 residential streets (through signage) as 20mph. Following a review of the changes in speed limits in 2016, the changes resulted in a small overall reduction in vehicle speeds of 1.3 mph[24].

Low traffic neighbourhoods could assist in reducing speeds within residential areas through area-wide traffic calming measures. Whilst any speed reduction is beneficial to making an environment more attractive for walking and cycling, 20mph limits may need to be supported by a range of measures to create conditions in which drivers choose to drive at no more than 20mph. As stated in section 2.2.5, any low traffic neighbourhood scheme being developed should commence with the understanding that a 20mph speed limit will be implemented throughout the zone as standard, if not already in place, with good reasons needed to vary from this standard.

Pressure for non-residential parking

In some areas of Bath, traffic which is not through-traffic but also does not have a direct local destination, is drawn into residential areas in search of on-street parking spaces (sometimes known as park and stride). Whilst some residential areas currently benefit from residents' parking restrictions, there is not full coverage across the city. In addition, some residents' parking spaces in the central area remain as pay and display parking for the general public, which can lead to drivers circulating to find available on-street parking spaces.

It is possible that pressure for non-residential parking could increase after the implementation of the CAZ (as vehicles seek to avoid the charge). Although it should be noted, the location of the various residential parking zones and other existing TROs, such as double yellow lines, already limit the areas available to park immediately outside the CAZ boundary.

[24] https://democracy.bathnes.gov.uk/documents/s46582/20mph%20Zones%20Review%20Report.pdf

It is possible that to combat pressures associated with non-residential parking, there could be an increase in requests for residential parking schemes. Residents' parking zones are one solution to managing non-residential parking issues, however low traffic neighbourhoods may also further limit demand for non-residential parking by making it more inconvenient to access areas to park. Careful consideration should be undertaken in relation to residents' parking zones and the interaction between any proposed zone and low traffic neighbourhoods, whether one option or a combination of both provide the solution to non-residential parking concerns in a particular area. Residents' parking schemes can also be a useful tool in the delivery of mode shift targets, through the restriction of on-street parking availability and potentially car ownership.

Public health and physical activity

The B&NES 'Shaping up! Healthy Weight Strategy' (2015-2020)[25] states that over half (58.7%) of adults in B&NES are estimated to be overweight or obese, with these rates rising. Obesity can lead to reduced life expectancy and higher risks for chronic diseases. Activity limitations due to obesity or related chronic illnesses may also increase the risk of depression by reducing involvement in physically rewarding activities.

Only 27% of the B&NES population undertake 30 minutes of moderate intensity exercise on three or more days a week. Health costs in B&NES due to inactivity comes to £2.9 million per year, with a wider cost of inactivity in B&NES estimated at £15 million.

Low traffic neighbourhoods aim to tackle inappropriate traffic volumes and speeds, as well as provide opportunities to implement improved walking and cycling infrastructure to create a more attractive environment for active travel within residential areas. These elements encourage an increase in daily walking and cycling, which can contribute to peoples' weekly levels of exercise and support improvements in the physical and mental health of residents.

Air quality issues

The Bath Air Quality Management Area (AQMA) was declared in 2002 and updated in 2013. The AQMA highlights that levels of nitrogen dioxide (NO_2) within the city exceed the national annual average objectives of 40 micrograms per cubic metre. The majority of nitrogen dioxide is generated via road transport, particularly diesel and older petrol vehicles. Air quality presents an issue to human health as the latest research indicates that in the UK, between 1 in 4 and 1 in 12 new cases of asthma in children each year are attributable to NO_2.

Figure 3-7 illustrates the mean annual modelled concentrations in Bath for 2017. The figure shows a number of exceedance of the 40 µg/m3 annual mean NO2 levels particularly on London Road, Bathwick Street, A3039, A367, Upper Bristol Road and Lower Bristol Road. To tackle these exceedances, B&NES submitted the final business case for a Class C CAZ to central government in December 2019. This will charge most higher-emission vehicles to drive in the city centre from November 2020. Cars (excluding taxis/PHVs) and motorbikes will not be charged in the zone.

[25] https://www.bathnes.gov.uk/sites/default/files/shaping_up_healthy_weight_strategy_2015-20.pdf

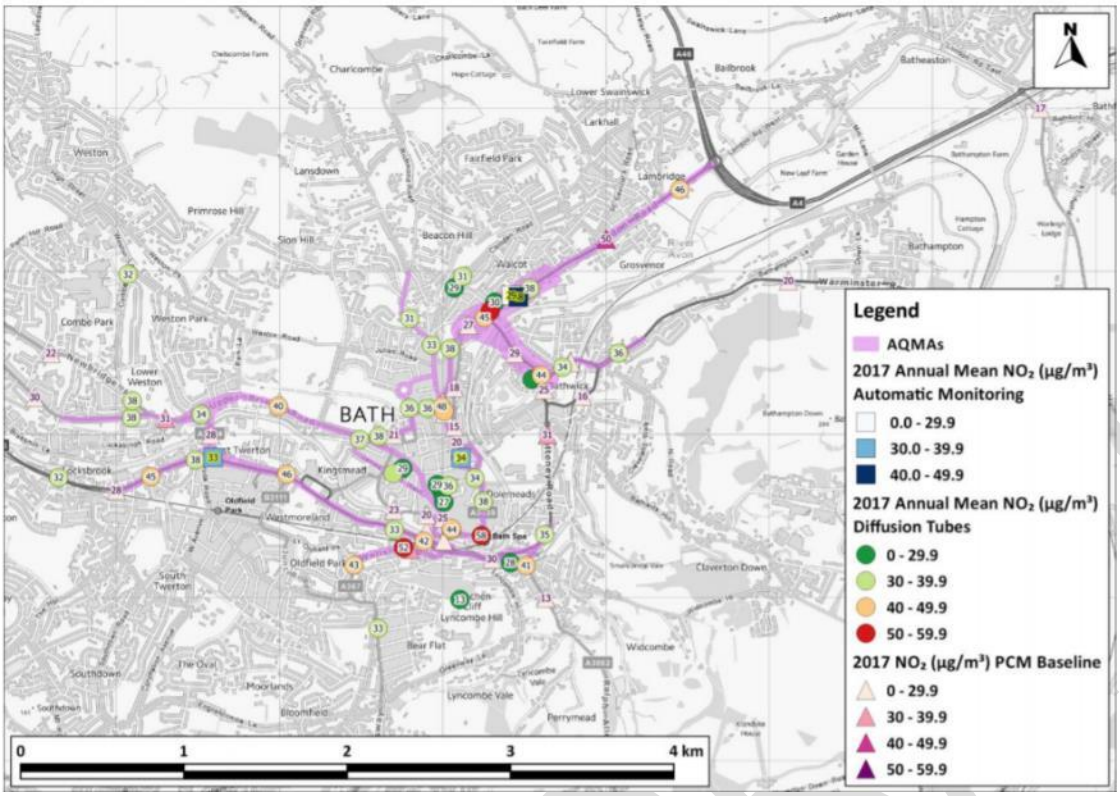


Figure 3-7: Mean annual modelled NO_2 concentrations in Bath (2017)

When designing low traffic neighbourhoods, it is important to recognise these air quality hotspots and consider the implications of any potential traffic displacement as a result of changes to residential streets. Any significant impacts on hotspots could lead to issues of non-compliance with the CAZ. However as main roads are designed to take larger amount of traffic a small increase in traffic on a main road is overall less noticeable or problematic than the transformation brought about by a dramatic reduction on a residential street.

Although traffic displacement is to be expected, some best practice examples in Waltham Forest have reported that the maximum peak flows were found to be lower on the surrounding main roads (through peak spreading, re-routeing and mode shift), following the introduction of low traffic neighbourhoods. Even though those boundary roads experienced a slight increase in traffic levels over the day (between 4% and 28%), the increase was not directly proportionate to the decrease in levels of traffic on the residential roads, with a degree of traffic disappearance or evaporation occurring.

Importantly, the Walthamstow Village Review[26] also showed that the number of vehicle movements had significantly decreased on the majority roads within the area (11 out of 14 roads), with the average road in the village seeing a 44.1% reduction in vehicle numbers. This included over 90% reductions in traffic on Copeland Road, Eden Road and West Avenue.

Physical features and heritage

A key consideration in the delivery of transport schemes within Bath is the width of the highway boundary. The narrow streets in the heritage city continue to influence the development and delivery of transport schemes. As such, traffic is often at odds with Conservation Areas and the World Heritage Site.

Bath has over 5,000 listed buildings and a number of Scheduled Monuments. The City of Bath World Heritage Site Management Plan identified transport as a major issue for the World Heritage Site due to the impact on air quality, people and businesses. This highlights that car use should be reduced and public realm enhancements continued. As such any

[26] https://londonlivingstreets.files.wordpress.com/2019/07/2017-08-23-wv-report-final.pdf

schemes implemented require consideration in line with Planning (Listed Buildings and Conservation Areas) Act 1990 and Streetscape Manual[27] guidance to ensure appropriate design.

In addition, the Georgian city has a number of underground cellars and vaults which require consideration in the development of schemes which may require earthworks.

Street gradients are another potential constraint which should be considered in relation to encouraging walking and cycling. Whilst in relation to low traffic neighbourhoods this may not act as a deterrent for active travel within the neighbourhood; the feasibility of linking into other neighbourhoods and the city centre should be appropriately considered. Figure 3-8 illustrates the topography surrounding and within Bath city centre in relation to the cycle network.

Low traffic neighbourhoods offer an opportunity to enhance streetscape and public realm in keeping with World Heritage Site status.

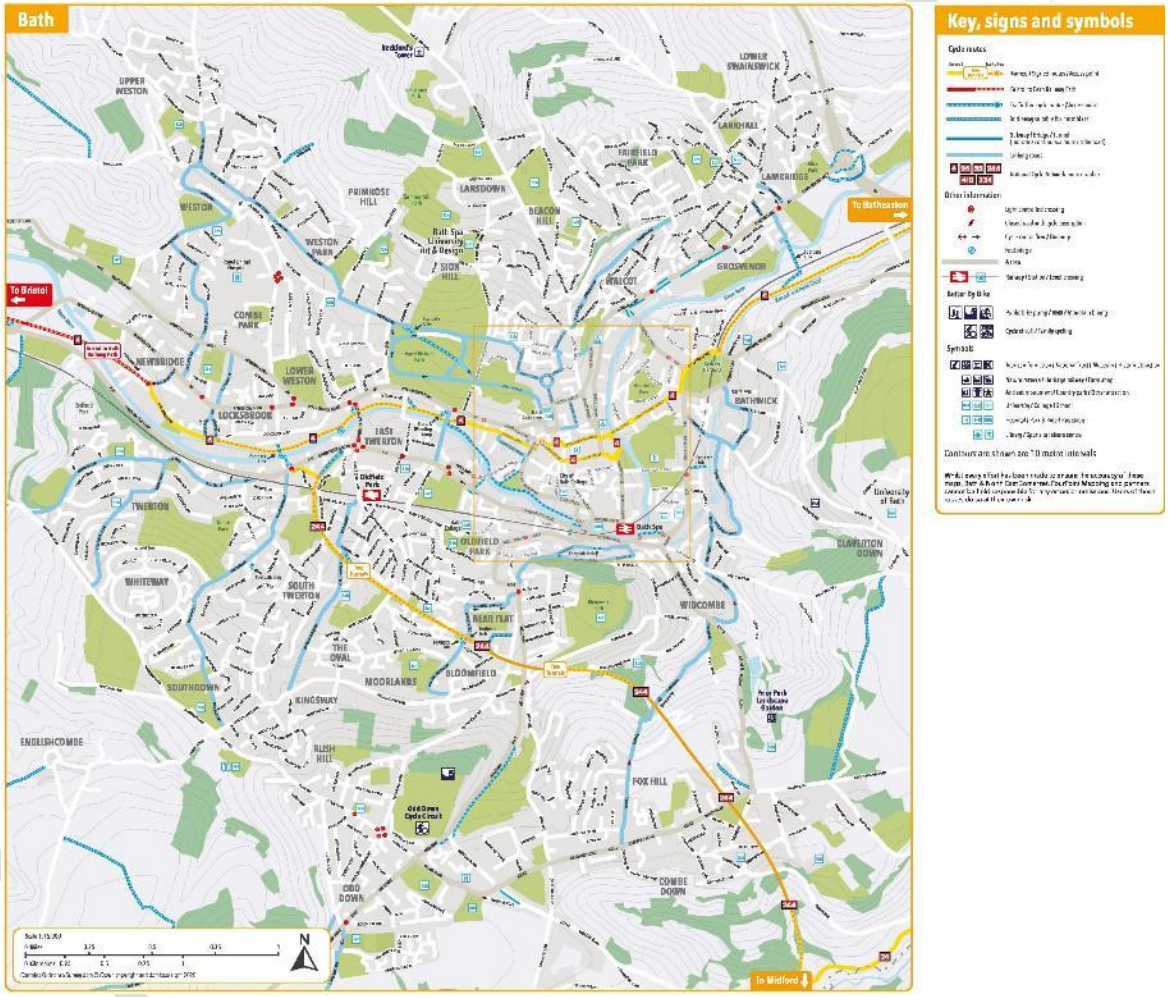


Figure 3-8: Bath cycle network[28], including topography

3.3.3 Keynsham, Whitchurch and Saltford

Travel in Keynsham, as detailed in the Getting Around Keynsham Transport Strategy, is predominately by car. The Strategy sets out that future travel will likely remain as mainly by car, but that any reductions will deliver benefits for congestion,

[27] https://www.bathnes.gov.uk/sites/default/files/sitedocuments/Planning-and-Building-Control/Planning-Policy/SPDs/streetscape_manual_adopted.pdf
[28] https://betterbybike.info/wp/wp-content/uploads/2016/04/Bath.pdf

the environment and the local economy. Similarly travel in Saltford and Whitchurch is predominately car-based, particularly as the settlements are located directly along A-roads.

Impact of vehicles

The highway network in Keynsham is highly constrained and large volumes of trips take place by car. In 2011, two thirds of work trips by Keynsham residents were made by car. Due to the high volume of local trips by car, the presence of through-traffic and the constrained network, congestion on the main east-west and north-south routes is high and predicted to worsen with increased housing provision.

The majority of through-traffic in Saltford and Whitchurch remains on the A4 and A37 respectively, with limited opportunities for rat-running on less suitable residential roads.

Low traffic neighbourhoods can help to reduce the impact of a highly traffic-dominated environment in local neighbourhoods by promoting active travel modes and discouraging through-traffic.

Air quality issues

The Keynsham AQMA was declared in 2010 and in Saltford in 2013. As a result, the Keynsham and Saltford Air Quality Action Plan developed in 2016. As with the Bath AQMA, the Keynsham AQMA highlights the areas of NO_2 exceedances which mainly cover the high street. In Saltford the AQMA covers the A4, through the centre of the settlement.

The Air Quality Action Plan sets out a number of measures to reduce air pollution. These encourage a transition to electric vehicles and a shift to walking, cycling and public transport through infrastructure provision, these would be supported through the implementation of low traffic neighbourhoods. It has considered that recently air quality has improved in both Keynsham and Saltford.

Residential on-street parking

A Keynsham parking study (2016[29]) highlighted that residential parking was reaching capacity and that residents' parking zones may be required. A residents' parking zone has been implemented within Keynsham, which covers Mayfields, Rock Road and The Labbott. Consideration of the existing residents' parking zone should be included in any proposals for low traffic neighbourhoods in Keynsham.

Walking and cycling

The Getting Around Keynsham Transport Study established that there are opportunities for improving linkages between neighbourhood areas and Keynsham town centre. Similarly, the Placemaking Plan identified the importance of walking and cycling in Whitchurch stating some of Whitchurch's key transport issues as:

- *"The importance of avoiding severance between the existing Whitchurch Village and the new community as there is the need to ensure easy pedestrian and cyclist movement across the new link road without adversely affecting its function as part of the strategic network";* and
- *"How to best provide or enhanced walking and cycle routes proposed throughout the wider area to encourage a greater shift to active travel and more sustainable travel modes."*

Low traffic neighbourhoods could support the shift to higher uptake of walking and cycling through increasing the attractiveness of active modes, particularly for shorter trips, and decreasing the attractiveness of car trips through residential areas.

3.3.4 Chew Valley

Given the rural nature of Chew Valley, there is high car ownership. The Chew Valley Transport Strategy identifies that Norton Malreward has the highest proportion of households with three or more cars (over 30%) while Ubley has the highest proportions of households with two cars (over 50%). Cameley has the highest proportion of one car households.

[29] Keynsham Parking Survey Review - https://www.bathnes.gov.uk/sites/default/files/siteimages/Parking-and-Travel/20170511_task_5_technical_note_v8-final_issue_revised-djl_080917.pdf

The high car usage and a constrained network in Chew Magna impacts on traffic flow and on pedestrian activity. The Chew Valley Transport Strategy notes that much of the traffic management is self-enforcing with informal alternate working of infrastructure and slow speeds. As such it highlights that further speed reduction measures and signing would conflict with the nature of the village and should be resisted.

Additional transport issues detailed in the Chew Valley Transport Strategy highlights the impact that the relatively few large vehicles travelling through villages have due to the narrow roads. Concerns of rat-running on the B3130 through Chew Magna to get to Bristol Airport have been raised. Through-traffic survey results showed that a temporary closure of the airport for a number of days had little impact on traffic flows on the network and as such the rat-running traffic issues reported in the area are due to general traffic levels, rather than as a result of access to the airport.

Air quality is also an issue in Temple Cloud with an AQMA declared in 2018.

Whilst low traffic neighbourhoods may not be suitable for implementation given the smaller geographical scale of the area, some measures or themes of low traffic neighbourhoods could be implemented within streets or smaller areas within Chew Valley.

3.3.5 Somer Valley

The Somer Valley Core Strategy & Placemaking Plan and Transport Strategy highlights some of the local transport issues which include: high traffic volumes through built-up areas; high levels of out-commuting (by car) resulting in peak congestion; and limited pedestrian, public transport and parking provision. There has been significant housing growth across Somer Valley, contributing to a growth in traffic, particularly commuting traffic on main roads. Air quality is also an issue in Farrington Gurney with an AQMA declared in 2018.

Midsomer Norton is a key market town in Somer Valley, serving the surrounding towns and villages. The town centre has a range of attractors including shops and leisure facilities, with the historic core designated as a Conservation Area. The Placemaking Plan identifies that the high street presents an opportunity to encourage new and enhanced walking links within the centre and between residential areas. Consideration of improved walking and cycle links should be considered in this area.

Radstock, located to the south of Somer Valley, is also a key town centre. It is located along National Cycle Route 24 which the placemaking plan notes is an asset to the area, with new and enhanced linkages to be encouraged. Enhancements to the public realm through links to green spaces and sustainable transport routes, landscape enhancements and greater provision for pedestrians and cyclists in the town centre are also included within Policy SV3. There are several site allocations under the existing local plan within Radstock which sets out proposed developments.

Surrounding areas including Westfield, Paulton and Peasedown St John have separate identities but are closely linked with Radstock and Midsomer Norton. Paulton, over the last few years has experienced housing growth on the edge of the village. Old Mills Industrial Estate was set out in the existing local plan as an employment site. It is accepted there has been substantial growth in traffic, especially commuter traffic. However, this growth is prevalent on the main roads as opposed to along local neighbourhood roads experiencing rat-running.

Whilst low traffic neighbourhoods may not be suitable for implementation given neighbourhood traffic is relatively low and through-traffic is already travelling along main roads; some measures or themes of low traffic neighbourhoods could be implemented within streets or smaller geographical areas within Somer Valley.

3.4 Vision and objectives for low traffic neighbourhoods in B&NES

The existing and emerging policies for B&NES set out the aims to prompt a major shift from private vehicles to walking, cycling and public transport to reduce emissions, protect the World Heritage Site and improve the health of its residents. An increase in travelling by active and sustainable modes within low traffic neighbourhoods will support a reduction in congestion and unlock additional street space.

Approximately 192,000 people were estimated to live in B&NES in 2018 and it is important to ensure that they are able to interact with high quality streets particularly within residential areas. The design and use of residential streets have the

ability to positively and negatively impact on the lives of those interacting with them. As such, it is vital that communities are involved in the design and use of their neighbourhoods in the shift from designing for cars to designing for people.

Based on existing policies, discussions with B&NES officers and Councillors, along with best practice research, the following vision has been developed for low traffic neighbourhoods across B&NES.

Our vision is to create better places across B&NES that promote active travel and public transport use, improve community health and reduce the need for short car journeys.

The problems and issues within B&NES, as outlined in section 3.3, have been considered in the formation of strategy objectives, along with linkages to existing local and national policies. In particular, three policy principles from the B&NES Corporate Strategy have also influenced the development of the following strategy objectives in Table 3-2. "*We want to prepare for the future, deliver for local residents and focus on prevention*".

Table 3-2: Strategy objectives

Objectives	Existing policies supported	Potential issues addressed through low traffic neighbourhoods
Reduce carbon emissions, improve air quality and respond to the climate emergency	▪ Clean Air Strategy 2019 ▪ The Clean Growth Strategy ▪ DfT Decarbonising Transport, ▪ JLTP4 ▪ Bath and North East Somerset Corporate Strategy ▪ Emerging B&NES local plan ▪ B&NES Climate Emergency Progress Report ▪ Clean Air Plans (Bath, Keynsham, Saltford)	▪ **Air quality:** Five AQMAs have been declared across B&NES due to high NO_2 emissions from high emission vehicles. Encouraging walking and cycling will help tackle this. ▪ **High carbon emissions:** High number of vehicle trips and long distances travelled in private cars contribute to carbon emissions and local air pollution. ▪ **Climate emergency:** B&NES has declared a climate emergency to reduce carbon emissions to net zero by 2030
Improve public realm and quality of life - creating better places for residents, businesses and visitors, as well as sympathetically accommodating emerging EV infrastructure requirements	▪ NPPF ▪ JLTP4 ▪ Existing B&NES local plan ▪ Emerging B&NES local plan ▪ B&NES Health and Wellbeing Strategy ▪ Public realm and movement strategy ▪ World Heritage Site Management Plan ▪ WECA Draft Ultra Low Emission Vehicle Strategy	▪ **Vehicle dominance and high traffic** volumes in the city centre and residential areas has decreased the public realm, particularly within the World Heritage Site. ▪ **Insufficient walking and cycling space** due to streets designed to prioritise vehicle movement contributes high volumes of short trips in cars. ▪ **Insufficient space to accommodate on-street EV infrastructure**
Encourage more local trips by active modes of travel, through providing easy, safe and comfortable routes within neighbourhood	▪ NPPF ▪ The Clean Growth Strategy ▪ DfT Decarbonising Transport ▪ JLTP4 ▪ B&NES Corporate Strategy ▪ Existing B&NES local plan ▪ Emerging B&NES local plan ▪ Getting Around Bath Transport Strategy ▪ B&NES Climate Emergency Progress Report ▪ B&NES Health and Wellbeing Strategy ▪ Public realm and movement strategy	▪ **High vehicle volumes** in the city centre and residential areas. ▪ **Insufficient walking and cycling space** due to streets designed to prioritise vehicle movement contributes high volumes of short trips in cars. ▪ **Unattractiveness of travelling by active modes** and barriers to walking and cycling due to high vehicle volumes.

Objectives	Existing policies supported	Potential issues addressed through low traffic neighbourhoods
	▪ World Heritage Site Management Plan ▪ WECA Draft Ultra Low Emission Vehicle Strategy	
Reduce the impact of "rat-running" vehicles along unsuitable residential roads, to support prosperity and improve community connectivity, whilst safeguarding access for residents (and the needs of mobility impaired people)	▪ Existing B&NES local plan ▪ Emerging B&NES local plan ▪ Getting Around Bath Transport Strategy ▪ B&NES Health and Wellbeing Strategy	• **Decline of public realm and communities** as congestion on the constrained network has resulted in the inappropriate routeing of vehicles via residential areas. • **Safety issues** associated with high volumes of traffic in residential areas.

3.5 Role of low traffic neighbourhoods in B&NES

Low traffic neighbourhoods consider how streets are managed to enable inclusive and safer environments, to promote active travel and mode shift away from private cars. The principles of a low traffic neighbourhood focus on delivering attractive, healthy, accessible and safe neighbourhoods for people.

As such, the implementation of low traffic neighbourhoods in B&NES could support the policies and assist in tackling some of the issues across the district outlined in section 3.3.

The key principles of low traffic neighbourhoods have been discussed in section 2 and are summarised below. The location and development of low traffic neighbourhoods within B&NES should broadly follow these principles.

Key principles in the development of low traffic neighbourhoods

Size: low traffic neighbourhoods should ideally include a group of residential streets, bordered by a main road (those used by LGVs, HGVs, buses and through-traffic), which is walkable within 15 mins (approximately 1km^2).

Location: low traffic neighbourhoods should be in close proximity to key amenities and services, especially key transport interchanges.

Infrastructure: a range of infrastructure can be used to support the implementation of low traffic neighbourhoods which could include modal filters, active mode development and public realm improvements.

Community involvement / engagement: active community engagement should be embedded from the start of the process, through to co-designing elements and continue through the active feedback and monitoring stages.

Schemes within B&NES should look to tackle local issues through tailoring local aims and objectives whilst fitting to the objectives set in the strategy. Based on the issues identified in section 3.3, local objectives could include reducing through-traffic on residential streets, calming traffic in neighbourhood areas and/or increasing travel by active modes, as well as utilising opportunities that arise to enhance the public realm and utilise space for provision of EV charging. Other improvements alongside the low traffic neighbourhoods could be integrated into low traffic neighbourhood design.

Specific measures which could be included in low traffic neighbourhoods are outlined in Table B-1 in **Appendix B**. In B&NES, those which are likely to be most suitable include:

- modal filtering of residential streets through bollards, width gates, bus gates or planters;
- public realm enhancements, such as shared space, parklets and green infrastructure;
- alignment or consideration with residents' parking schemes;
- time-limited access restrictions through school streets; and
- blended / "Copenhagen" crossings to reinforce pedestrian and cyclist priority in an area.

It should be acknowledged that many streets, particularly in Bath, are narrow and as part of the implementation of some of these measures, there could be implications for on-street parking capacity. For example, as part of the installation of a

modal filter, to ensure sufficient space for turning vehicles, it may be necessary to remove additional parking spaces from residential streets.

It should be noted that the residents' parking scheme policy has been revised to sit alongside this strategy. A review of existing residents' parking zone boundaries may be necessary as part of the development of low traffic neighbourhoods, along with the consideration of whether a residents' parking scheme is required in the absence of one.

Measures within B&NES must also be carefully considered in terms of their impact on air quality and heritage. Given that a CAZ will be implemented in the city centre and AQMAs have been declared across B&NES, it must be ensured that measures will not have a negative impact of the clean air plans and air quality compliance in the long term. Additionally, the heritage city and conservation areas require close consideration to ensure that measures implemented are consistent with the environment through following relevant design guidance and material pattern books.

4. Approach for the implementation of low traffic neighbourhoods in B&NES

4.1 Introduction

Low traffic neighbourhoods should be considered, designed and implemented specifically for the local area and respond to local problems, issues and opportunities. As such, a flexible approach to scheme development and implementation is outlined in this section which can be used as a guide. However further local knowledge of the issues and place will be required throughout the process and should be used to tailor the requirements of the process to the specific local circumstances. That said, it is important that there is a clear overall approach for identifying and taking forward low traffic neighbourhood proposals.

This section has been informed through the review and evaluation of existing low traffic neighbourhood or liveable neighbourhood policies and schemes from the UK. The approach outlines the way in which appropriateness will be determined and engagement, development, design and delivery of low traffic neighbourhoods is carried out in B&NES.

This approach to low traffic neighbourhoods has been informed and developed in line with the following principles:

- **Collaborative**: Work with local communities to determine the suitability of low traffic neighbourhoods and co-design them. Ideas may be trialled and adjusted as appropriate and informed by community responses. Communities will inform the current and future user requirements when designing proposals, particularly engagement with:
  - those groups within communities who are historically deemed "harder to reach", such as people with disabilities, people who do not belong to organised groups, the unemployed and people for who English is not their first language; and
  - those who are understood to be the end users of community space, such as families with young children, older people and those who, through choice or otherwise, live without access to a car.

  Engagement with additional stakeholder groups will be undertaken as appropriate, such as the emergency services. Inputs from a range of service teams within the Council will be sought in the development of low traffic neighbourhoods, including but not limited to transport policy, traffic management and parking, air quality, public health, planning and conservation.
- **Responsive**: Work with those requesting low traffic neighbourhoods to assess the eligibility and feasibility of implementation. Prioritisation of the schemes will be based on a number of factors and will take into consideration other schemes which could impact on traffic flows in areas. The iterative process of scheme development, engagement and prioritisation enables the evolution of proposals to respond to changes in local context.
- **Holistic**: Low traffic neighbourhoods will be considered within the larger context of B&NES transport vision and therefore the flexible approach enables future policies and objectives to be incorporated within low traffic neighbourhood design. Wider existing or emerging schemes (such as residential parking or on-street EV charging) in a local area will be taken into account. Solutions will be considered based on their local and wider impacts to ensure limited displacement effects. Complimentary or alterative solutions may also be considered.

Low traffic neighbourhood projects within B&NES should be developed or integrated with other local and regional programmes, including:

- a safer pedestrian and cycling experience (under the Bath Transport Delivery Plan and the emerging West of England Local Cycling and Walking Infrastructure Plan);
- improving air quality (under the Bath Clean Air Zone);
- encouraging shift towards low emission vehicle use (under emerging EV on-street charging strategy and West of England ULEV strategy);
- review of parking considerations (residents' parking schemes and B&NES parking strategy);
- expand existing Park and Ride capacity (under the Bath Transport Delivery Plan and WECA Park and Ride fund);
- better bus routes (under the Bath Transport Delivery Plan and WECA Bus Infrastructure Fund); and

- improved public health (emerging public health programmes)

More about these programmes can be found on the B&NES and travelwest websites.

4.2 Process and considerations for the delivery of low traffic neighbourhoods

The summary process flow in Figure 4-1 below highlights the broad stages for low traffic neighbourhood consideration and implementation. More details are provided in this section, along with the expanded process flow in Figure 4-5, which outlines a high-level guide of information to be considered at each stage. It also provides guidance on consideration of a how a proportional approach should be taken based on the issues experienced, severity and geographical scale. The timeframe for this process will vary on a location-by-location basis.

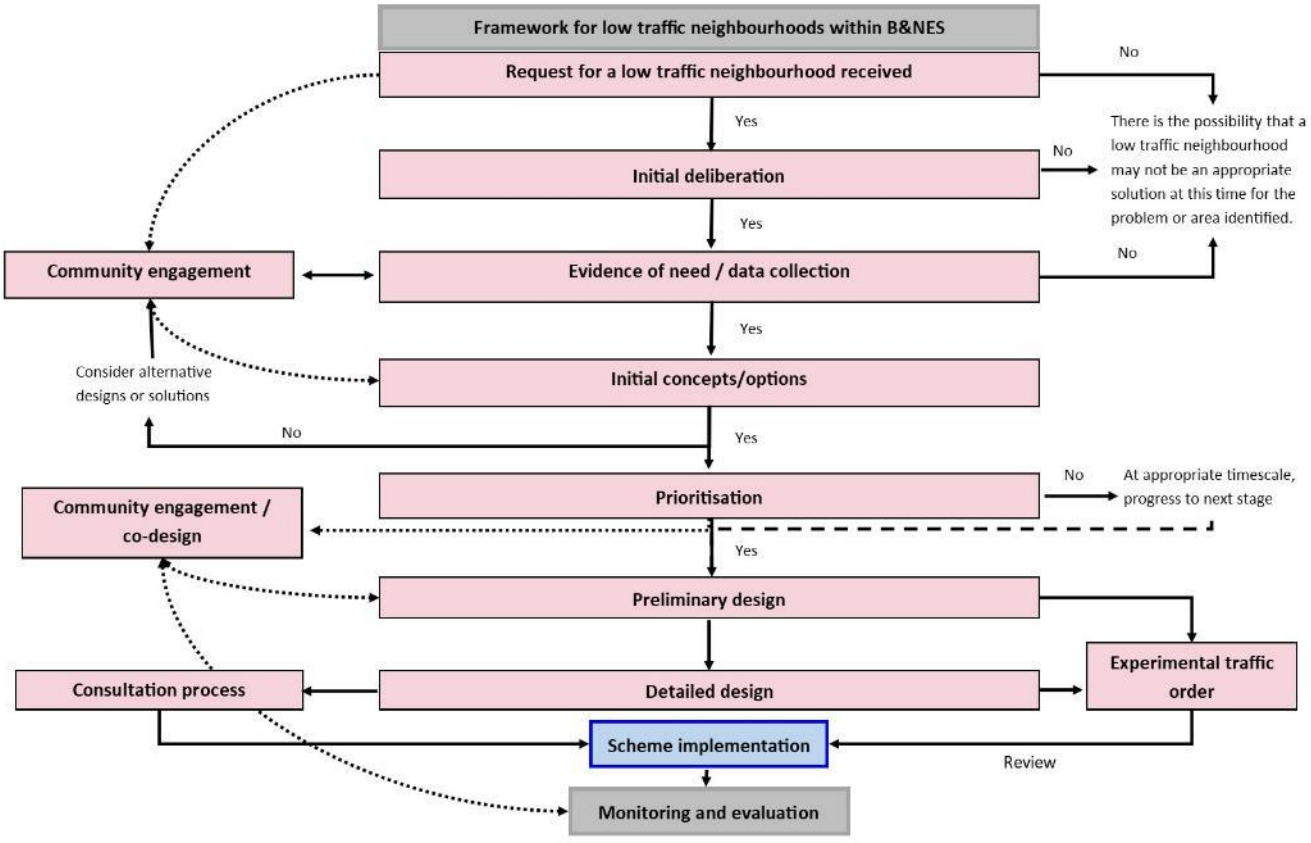


Figure 4-1: Summary process for delivery of low traffic neighbourhoods in B&NES

This flow process identifies the stages undertaken to ascertain the eligibility, feasibility and prioritisation of low traffic neighbourhood requests, as an appropriate solution to local issues. Throughout the iterative process, critical analysis should be used to determine the appropriateness of a low traffic neighbourhood and whether alternative solutions could be more suitable (i.e. residents' parking scheme).

4.2.1 B&NES framework for low traffic neighbourhoods within Bath & Keynsham

In order to ensure a holistic, joined-up approach to the implementation of low traffic neighbourhoods, B&NES will develop a framework to identify potential areas which may be suitable for a low traffic neighbourhood, following the principles outlined in section 2.

A key principle includes the identification of main roads and local roads within the urban areas of B&NES. The initial mapping of road by classifications provides a first step to understanding the suitability of potential areas. Examples maps for Bath, Keynsham / Saltford and Somer Valley are shown in Figure 4-2, Figure 4-3 and Figure 4-4 respectively. The maps highlight the all-purpose roads (A Roads), B roads and classified unnumbered roads, which could be used to bound low traffic neighbourhoods. When identifying main boundary roads for low traffic neighbourhoods, it is important to ensure that they are suitable for accommodating through-traffic.

The framework should consider the existing and emerging local policies and schemes, current connectivity between areas, gradients, historical street patterns, Conservation Areas, public transport routes, bus stops and existing walking and cycling routes.

When considering the framework for low traffic neighbourhoods, this also provides an opportunity for the review and optimisation of bus routes within the area (in line with Transport Delivery Plan), as well as the improvement of walking and cycling routes to bus stops or railway stations.

Action Point: B&NES to develop a framework to identify potential areas which may be suitable for a low traffic neighbourhood, including establishing the main and local road networks, as well as key public transport and active travel routes.

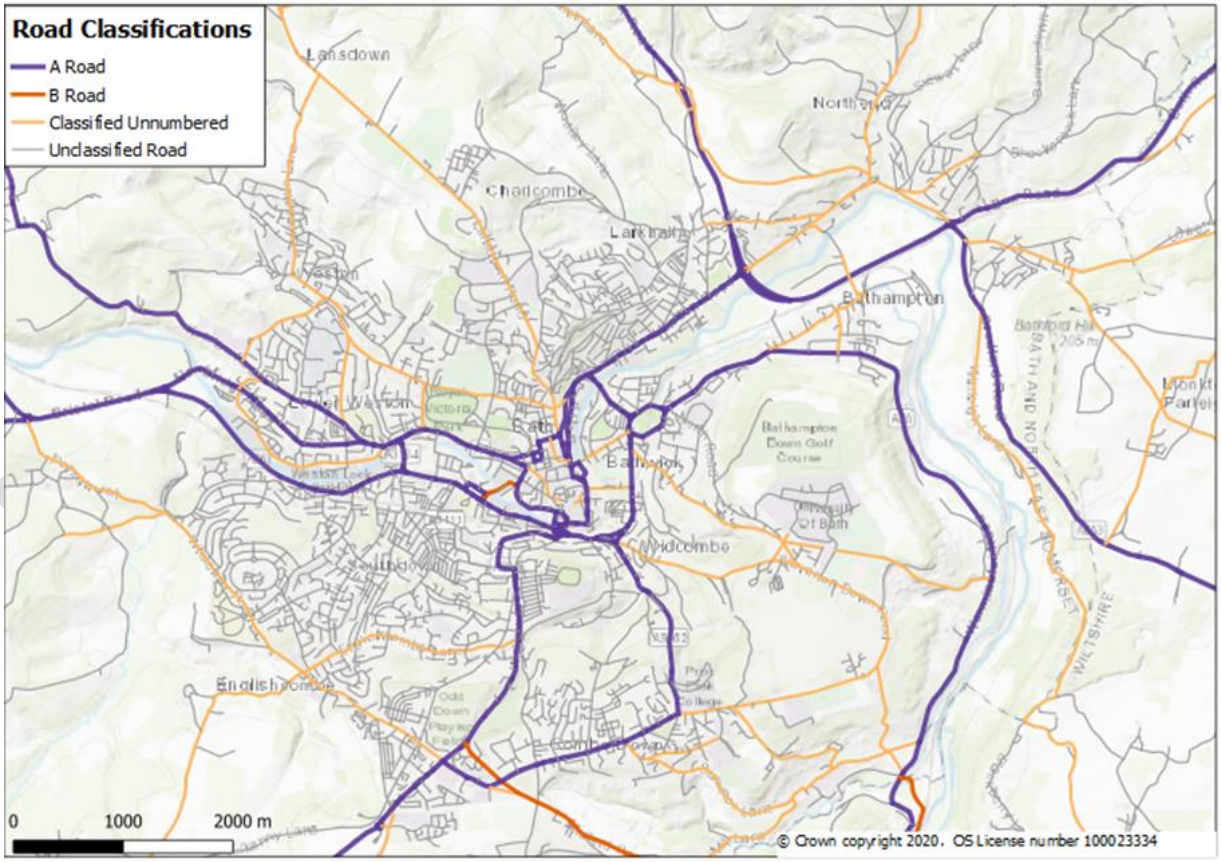


Figure 4-2: Identification of main and local roads in Bath

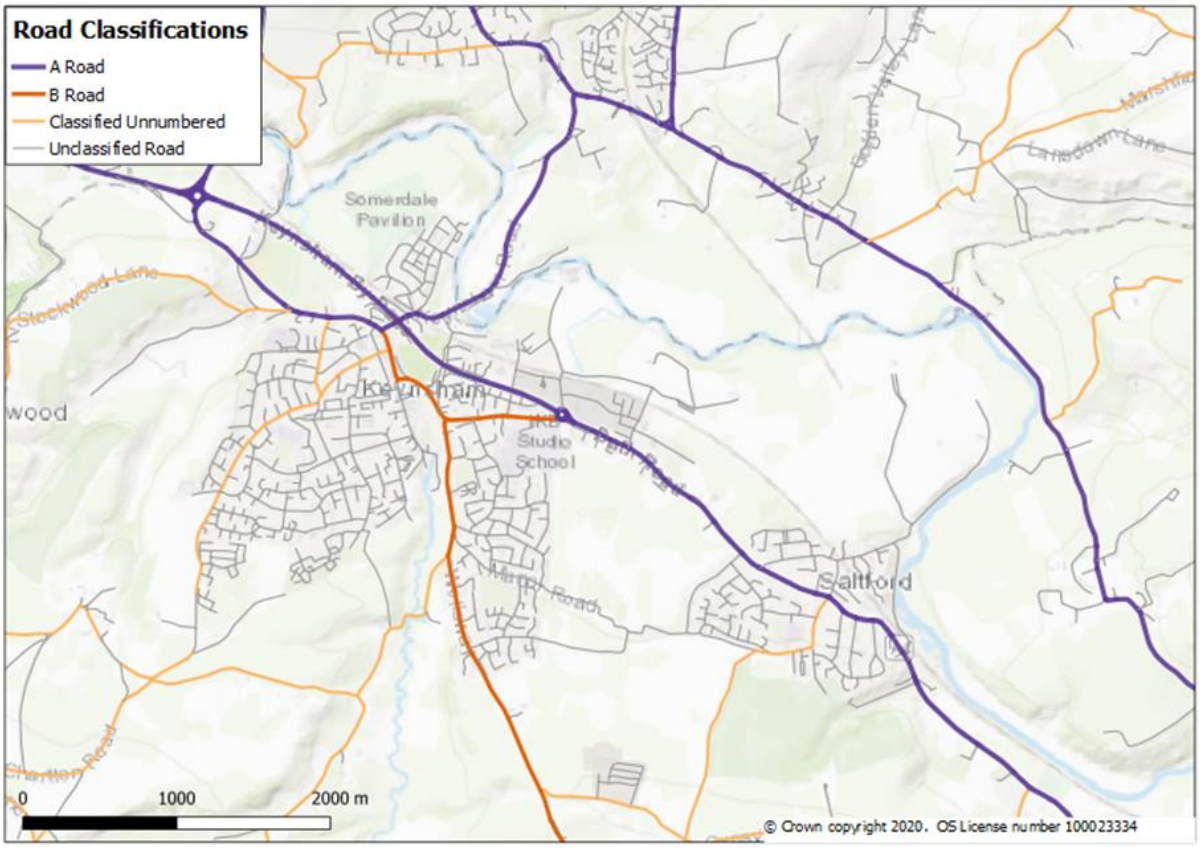


Figure 4-3: Identification of main and local roads in Keynsham/Saltford

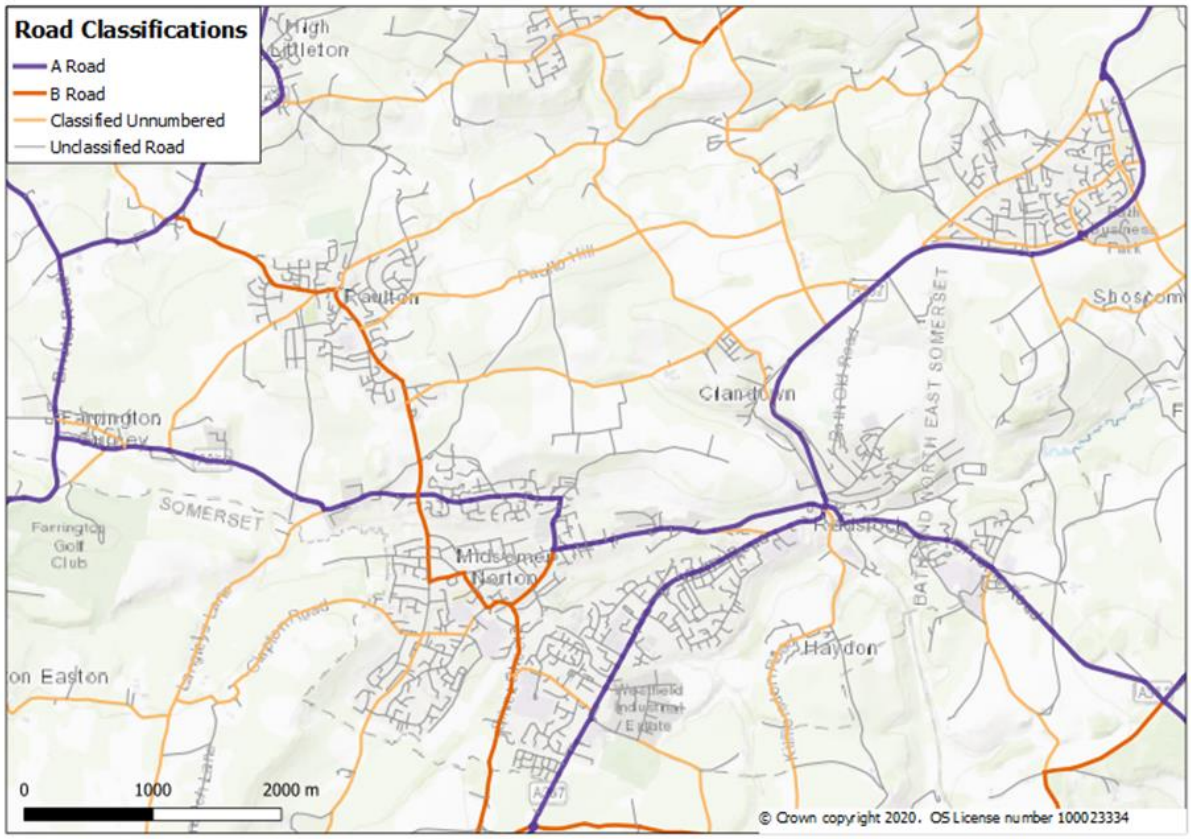


Figure 4-4: Identification of main and local roads in Somer Valley

4.2.2 Request for low traffic neighbourhood received

Requests for a low traffic neighbourhood will generally be received from local members supported by their community wishing to specifically implement a low traffic neighbourhood or more generally looking to solve a local issue within their area. Identification of potential low traffic neighbourhoods may also arise via work undertaken by the Council, for example in relation to wider implementation of transport strategy and projects.

Requests should be accompanied by a justification for why a low traffic neighbourhood is considered suitable for further investigation. A proforma has been developed to capture this information, to be completed by the request originator (see **Appendix D** for the proforma template) and submitted to B&NES. It should provide enough detail to allow the Council to assess whether a low traffic neighbourhood is potentially suitable. It should set out:

- scale of community engagement;
- the problem perceived / causes of issues;
- the geographic area affected by the problem;
- the scale / severity of the problem; and
- strength of local feeling/potential support for a low traffic neighbourhood including who the key stakeholders are to engage with at future stages.

Action Point: B&NES will actively identify areas as candidates for low traffic neighbourhoods. In tandem, the Council will invite communities, via their Councillor, to put forward their own proposals for local traffic neighbourhoods in their area. The Council will work with local Councillors and their communities to share information on the potential role that local traffic neighbourhoods can play and explain the potential suitability benefits and potential trade-offs to enable well though through proposals to come forward.

Output: Justification for request undertaken by the request originator, via proforma

4.2.3 Initial deliberation

Once the initial request has been received, B&NES will undertake a desktop review using information provided in the proforma as well as existing available data. The purpose of this initial deliberation is to consider if the proposal aligns with the main principles and objectives of low traffic neighbourhood. This will determine the eligibility and high-level feasibility of a low traffic neighbourhood in response to the problems identified and area affected. Understanding the issues, opportunities and feasibility is important at this stage to ensure the correct solution for the location and issues can be considered.

Eligibility review

A scheme is likely to be deemed eligible if there are issues or opportunities that a low traffic neighbourhood could potentially provide a solution. The existing information which may be considered could include:

- fit with B&NES low traffic neighbourhood framework;
- fit with existing policy and strategies;
- traffic data (volume, composition and speed);
- public transport journey time data;
- parking availability and permit demand (if an existing residents parking scheme is in place);
- personal injury collision data (within the last 36 months);
- air quality data; and
- review of previous engagement and consultations in the area(s).

The desktop review may include a site walk over and initial fact-finding engagement with the request originator or, if appropriate, the local community, through suitable means such as residents' and business associations, community groups or parish councils.

At this stage, it may be determined that a low traffic neighbourhood is not required. Instead it could be established that an alternative solution such as a new or revised residents' parking zone, speed limit reductions, weight limit enforcement or a discrete low-cost intervention (rather than area-wide intervention) is more suitable. It is expected that this will be considered through separate relevant channels within B&NES to ensure that any alternative solutions are not inhibited or delayed by the approach and prioritisation of low traffic neighbourhoods.

Feasibility review

If a request is deemed to be eligible for low traffic neighbourhood consideration, the feasibility of implementing a low traffic neighbourhood in an area should be considered. Additional high-level consideration of the following may be included at this stage:

- existing key active travel infrastructure in the vicinity of the area;
- public transport provision in the vicinity of the area;
- location of the area relative to any main roads;
- likelihood and potential impact of any displacement of issues;
- fit with heritage, conservation and historical street patterns;
- local attractors / land use in the vicinity of the area (community facilities, leisure centres, schools, local shopping and green spaces should be included);
- freight operations / deliveries in the vicinity of the area;
- parking availability and existing residents' parking zone in the vicinity of the area;
- infrastructure in the area which may be impacted (such as signals);
- site conditions, constraints or items needing further investigation at the feasibility design stage. Examples might be land ownership, Conservation Areas or utilities diversions; and
- initial local community and political support of the principle.

Any gaps in the available data should be identified at this stage for collection in the next stage.

In the determination of high-level feasibility, engagement with other B&NES officers could be required. This could include input from officers in the following areas: traffic, highways and parking; environment, air quality and public health; and planning, conservation and heritage.

Action Point: B&NES will use existing data to assess the eligibility and high-level feasibility of a low traffic neighbourhood approach. Low traffic neighbourhoods will be considered as potential solutions alongside other approaches.

Output: Eligibility & feasibility review to inform the initial consideration of requests

4.2.4 Evidence of need / data collection

Based on the data identified during the request and initial deliberation stages, additional data may be required. This need should be based on the local issues and take account of any data gaps. One of the main tenets of low traffic neighbourhoods is to encourage changes in travel behaviour, through the promotion of active travel and reducing private car use (particularly for local short trips). Therefore, if a low traffic neighbourhood is identified as part of a wider transport strategy, it may not be necessary to obtain additional data. Alternatively, existing information, anecdotal evidence and professional judgement of B&NES officers may also be used to identify need.

However, if additional data is required, it will depend on the nature of the problem identified in the specific area. It may include:

- the commissioning of Automatic Number Plate Recognition (ANPR) surveys (in areas where through-traffic or rat-running are concerns);
- parking surveys (in areas where parking problems identified);
- traffic speed surveys (where speed is an issue);
- air quality surveys (where concerns for local air quality are known or where necessary); and
- public transport journey time data.

This stage of data collection should also be planned such that it can form the baseline for future monitoring and evaluation.

At this stage, an initial high-level prioritisation should take place, which considers the low traffic neighbourhood request alongside other low traffic neighbourhood proposals under consideration. It is acknowledged that there could be a large volume of requests for low traffic neighbourhoods and therefore the prioritisation of schemes will be required in order to ensure targeted use of resources. Schemes will also be assessed against other schemes and available budgets.

Factors which are likely to be included within the initial high-level prioritisation assessment are:

- **fit with wider strategies and visions** - this will be informed based on the information gathered in the previous stages.
- **likelihood of delivery-based on public and political support** - this will be informed based on the information gathered in this stage and previous stages.
- **assessment against the low traffic neighbourhood strategy objectives** - this will be informed based on the information gathered in the previous sections and based on the severity / likelihood of the following:
  - air quality (NO_2) issues (linking with the objective to reduce carbon emissions, improve air quality and respond to the climate emergency);
  - collision issues and proportions of vulnerable populations (linking with the objective to improve public realm and quality of life - creating better places for residents, businesses and visitors, as well as sympathetically accommodating emerging EV infrastructure requirements);
  - ability to link with existing active travel and public transport routes and expedite them (linking with the objective to encourage more local trips by active modes of travel, through providing easy, safe and comfortable routes within neighbourhoods); and
  - evidence of rat-running as an issue (linking with the objective to reduce the impact of "rat-running" vehicles along unsuitable residential roads, to support prosperity and improve community connectivity, whilst safeguarding access for residents (and the needs of mobility impaired people)).

The outcomes of the initial prioritisation will inform timescales before progression to the next stage in the process.

Action Point: B&NES will initially prioritise low traffic neighbourhood schemes following further data collection and initial consideration of requests against strategic fit, local support and available budgets. This will determine whether schemes could/should progress to the concept design stage.

Output: Additional evidence of need, if required, and initial prioritisation of a low traffic neighbourhood requests

4.2.5 Community engagement

Community engagement could be included at multiple stages throughout the process, but particularly alongside the evidence of need/data collection stage. This engagement builds on information gathered at previous stages of the process. If a low traffic neighbourhood proposal is given the go ahead to proceed following initial prioritisation and evidence of need, the first step should be to engage the community. Effective community and stakeholder engagement is a key part to delivering low traffic neighbourhoods successfully. Consideration to the level / intensity of engagement and key stakeholders at this stage should be considered. This should be informed by the initial indication of local support, the potential scale of the project, any impacts or opportunities it may deliver for businesses and community.

The purpose of this early engagement would likely be to:

- understand the problems and issues;
- identify opportunities for enhancement;
- identify potential solutions; and
- understand acceptability of likely trade-offs.

This stage of engagement should also seek ideas for design from the local community to be incorporated in the next stage of the process.

Action Point: B&NES will engage with local communities throughout the process of developing low traffic neighbourhoods, at appropriate stages, to ensure collaboration in the development and design process.

Output: Community ideas for inclusion within the design of a low traffic neighbourhood.

4.2.6 Initial concepts / options

For those areas/requests which have been identified through the initial high-level prioritisation, the next step will be the development of initial options/concepts. This stage should scope out the potential measures that could be used to deliver a low traffic neighbourhood and the extent to which these would be in line with the principles outlined in section 2. This process may result in the development of a 'long list' of potential approaches to be considered and the opportunities and constraints of each. This should be informed by the community engagement undertaken and in collaboration with relevant residents' associations, businesses and organisations in the area.

Any scheme should be designed to ensure:

- contribution to the B&NES corporate strategies, such as transport strategies, public realm strategies;
- appropriate local access is retained, in particular for refuse and emergency service vehicles;
- consideration of displacement of issues, especially any traffic and associated air pollution on other routes;
- ensuring schemes consider safety for both non-motorised users and highway users within any proposal, maintaining visibility and safe access around neighbourhoods;
- accordance with existing B&NES street design guidance, promoting the requirements of those with disabilities and additional needs;
- consideration of the wider setting such as residents' parking zone (boundaries or potential for implementation), Conservation Areas and streetscapes, etc.;
- inclusion of additional wider opportunities such as the feasibility of electric vehicle charging, tree planting/soft landscaping/green spaces, parklets, shared space, high street public realm improvements;
- sustainability, addressing opportunities to minimise impacts and energy use;
- green infrastructure should be protected and schemes, if possible, should seek opportunities to increase the provision; and

- the schemes proposed should seek to encourage travel by active modes and therefore look to create attractive, safe and accessible walking and cycling routes linking with public transport and local destinations should as schools, shops and green spaces.

Consideration of the long-list could include modelling to identify any re-routing, consideration of design issues/trade-offs, timescales for intervention and high-level costing.

If the designs are not considered to be suitable, then further community engagement should be sought to identify alternative or additional options.

Action Point: B&NES aims to establish potential options for a low traffic neighbourhood solution.

Output: Long list of initial design options

4.2.7 Prioritisation

Following further data collection, evidence of need and the development of initial options for low traffic neighbourhood proposals, schemes will be assessed, using criteria and scored on a scale of 1 -3 (max. score to be established based on number of categories) against other proposed low traffic neighbourhood schemes. The prioritised list will then be considered against the wider delivery programme and available budgets.

Factors which are likely to be included within the prioritisation assessment are:

- **fit with wider strategies and visions -** this will be informed based on the information gathered in the previous stages.
- **assessment of options against the low traffic neighbourhood strategy objectives** - this will be informed based on the information gathered in the previous sections and based on the severity / likelihood of the following:
  - air quality (NO_2) issues;
  - collision issues and proportions of vulnerable populations (including indices of deprivation);
  - ability to link with existing active travel routes and expedite public transport options for wider benefits; and
  - evidence of rat-running or significant volumes/speeds of traffic as an issue.
- **likelihood of delivery based on public support -** this will be informed based on the information gathered in the previous stage and community engagement.
- **technical feasibility of solutions -** this will be based on an assessment of the deliverability of initial options and concept designs. The consideration within the framework as to whether there are opportunities for grouping and delivering neighbouring proposals as area-wide package of measures.
- **high level costs -** an initial cost estimate should be undertaken. Whilst only an initial estimate with little detail on potential scheme designs, this should include high-level costs for any potential scheme based on comparable areas and problems tackled. Cost could include consideration of the feasibility, concept and detailed design stages, costs associated with consultation, the likely type of materials, post implementation monitoring requirements, traffic and air quality modelling, potential costs for utilities and third party works (traffic signals), third party consents for works and risk considerations.
- **potential timeframes for implementation -** this will be informed by consideration of potential schemes design, likely extent of community support/opposition and length of time required to implement them, as well as funding opportunities.

The short list for low traffic neighbourhood proposals will then be put forward to B&NES cabinet for prioritisation, informed by public support. B&NES cannot guarantee that the available budget in one financial year will be able to support all the possible applications. To ensure budgets are appropriate, B&NES may re-prioritise projects and requests, with consideration on a six-monthly rolling review.

Action Point: When initial concept low traffic neighbourhood schemes have been developed, B&NES will continue to review, prioritise and re-prioritise schemes against criteria and available budgets ensuring when high priority schemes are developed and budget is available, schemes are progressed.

Output: Process for review, prioritisation and re-prioritisation of potential schemes.

4.2.8 Community engagement / co-design

Effective community and stakeholder engagement is a key part to delivering low traffic neighbourhoods successfully.

Community feedback on the initial long list of design options/concepts should be sought. Ideally, where resources allow, the design process should be undertaken collaboratively so that the community are engaged in the process of moving from a long list of design options to a short list or preferred option. Engagement with groups within communities who are historically deemed "harder to reach" and those who are understood to be the end users of community space, is particularly important when developing options and concepts.

Action Point: B&NES will engage with local communities throughout the process of developing low traffic neighbourhoods, at appropriate stages, to ensure collaboration in the development and design process.

Output: Short list of options

4.2.9 Preliminary design

The preferred short-listed option should be worked up to preliminary stage design. At this stage the full implications of the low traffic neighbourhood should be identified to include:

- extent and nature of any traffic re-routeing required – including impact on journey length and access for local residents, as well as ability of main roads to absorb any displacement;
- extent of construction work required noting that some solutions may require lining and signing, whilst others may require physical changes to junctions, kerb lines etc;
- details of all opportunities, for example creation of secure cycle parking with rentable spaces, parklets, enhanced footways, provision of EV charging;
- details of any trade-offs, to include specific details for example relating to loss of or changes to parking provision, road space or access;
- details of ongoing requirements, for example maintenance or enforcement;
- consideration of ETO process, if scheme suitable for trial, preliminary design is to include any temporary measures required;
- consideration of existing TROs and residents' parking schemes, as appropriate;
- project risk;
- equality implications; and
- requirement for a Road Safety Audit (RSA) depending on designs and process for the scheme implementation.

The work undertaken at this stage should be sufficient to accurately estimate an initial scheme cost and enable meaningful consultation on the full details of the scheme, including any trade-offs.

The ETO process could commence at this stage if the scheme is established as suitable to trial. Consideration of existing TROs (such as residents' parking zones) should be included at this stage as appropriate.

Community engagement regarding the preliminary design should be undertaken throughout this stage. The purpose of this engagement will be to identify final enhancements to the overall design.

Action Point: B&NES will develop the preferred option to preliminary design stage. B&NES will also consider whether an ETO will be used to trial the proposed scheme during consultation.

Output: Preliminary design

4.2.10 Detailed design

The preferred option should be developed into initial detailed design stage. This should include:

- further development of preliminary design to detailed design, including, as required:
  - road safety audits,
  - consideration of materials and compliance with any city pattern books relevant to a specific area;
  - to sufficient level as to support procurement of a contractor to deliver the scheme;
- development of ETO (if one is not already in place) or TRO, if required; and
- continued engagement with community.

The experimental traffic order (ETO) process can also commence at this stage if the more detailed scheme is established as suitable to trial. Consideration of existing TROs (such as residents' parking schemes) again should be included at this stage as appropriate. Section 4.2.11 outlines the process via ETO whilst section 4.2.12 highlights the process for implementation via consultation and TRO. The final step of 'after' monitoring applies regardless of the implementation route.

Action Point: If not already in place, B&NES will consider ETOs in the development of low traffic neighbourhoods acknowledging the advantages that this could deliver for a scheme.

Output: Detailed design

4.2.11 Implementing an Experimental Traffic Order

ETOs may result in advantages for the scheme. ETOs can be implemented seven days after the notice is published and therefore enable faster application and delivery of potential benefits. Implementation through ETO also enables ongoing engagement and monitoring, along with the ability to alter/tweak the scheme during consultation. ETOs may result in advantages for the scheme. ETOs can be implemented seven days after the notice is published and therefore enable faster application and delivery of potential benefits. Implementation through ETO also enables ongoing engagement and monitoring, along with the ability to alter/tweak the scheme during consultation. The use of ETOs is not proposed in order to circumvent the consultation process and implement unpopular schemes, with communities having already provided feedback through engagement on problem identification and option development prior to any use of ETOs. The process allows consultation to be undertaken during the trial of the scheme, allowing further feedback and objections to be collected whilst the measures are in place.

ETO consultation

If an ETO has been implemented, this triggers a six-month statutory consultation period, which should commence when the ETO commences. During this period objections must be considered and ETOs can be amended within the six-months which also restarts the consultation timeframe. A report detailing any changes should be kept available, as a record of engagement and responses to consultation.

Transition from ETO to TRO

The decision to remove the ETO or make the changes permanent should be made within 18-months of initial implementation. If the ETO is to be made permanent, the TRO notice should be made, however it does not include the consultation requirement and timescales as part of this process, as consultation has been undertaken as part of the ETO. A Stage 3 Road Safety Audit should be considered following implementation if appropriate

4.2.12 Implementation of scheme and TRO

Depending on the final scheme design and if not considering the use of an ETO, the relevant statutory processes should be followed for implementation. If appropriate this could include implementation through a TRO.

This will include statutory consultation as appropriate and include a minimum of 21 days for objections prior to the any TRO being made. Ongoing communication with the community should be sought during the construction phase via newsletters, website, information boards etc. as appropriate.

Action Point: B&NES will consider the delivery route for implementation of the scheme.

Output: Implementation of scheme

4.2.13 Monitoring and evaluation

Appropriate 'after' monitoring of low traffic neighbourhoods should be undertaken to properly evaluate the impact of the scheme. This could include, as appropriate:

- traffic surveys;
- parking beat surveys, uptake of permits etc;
- accident data analysis;
- public transport journey time data;
- air quality data analysis; and
- qualitative surveys of community and business opinion.

An agile approach may be required to ensure schemes are reviewed quickly after implementation and lessons learned are circulated, so improvements can be incorporated in future design and implementation of other schemes within B&NES. This also applies to existing B&NES experience, particularly in delivering a number of projects with a range of similar objectives to those set out in low traffic neighbourhoods. A review of local best practice and lessons learned from schemes such as Widcombe Parade[30] would be invaluable to the development of low traffic neighbourhood engagement and delivery processes in a local context.

Monitoring of the low traffic neighbourhood will be managed and led by communities with technical support from B&NES with exact requirements defined and promoted at the discretion of B&NES.

Action Point: B&NES will consider the level of monitoring of impacts of the low traffic neighbourhoods which are considered relevant to the local area, linking to the ongoing evaluation of the wider framework.

Output: Development of a monitoring and evaluation plan within low traffic neighbourhood framework

[30] https://www.bathnes.gov.uk/sites/default/files/siteimages/widcombe_a1_boards_f3.pdf

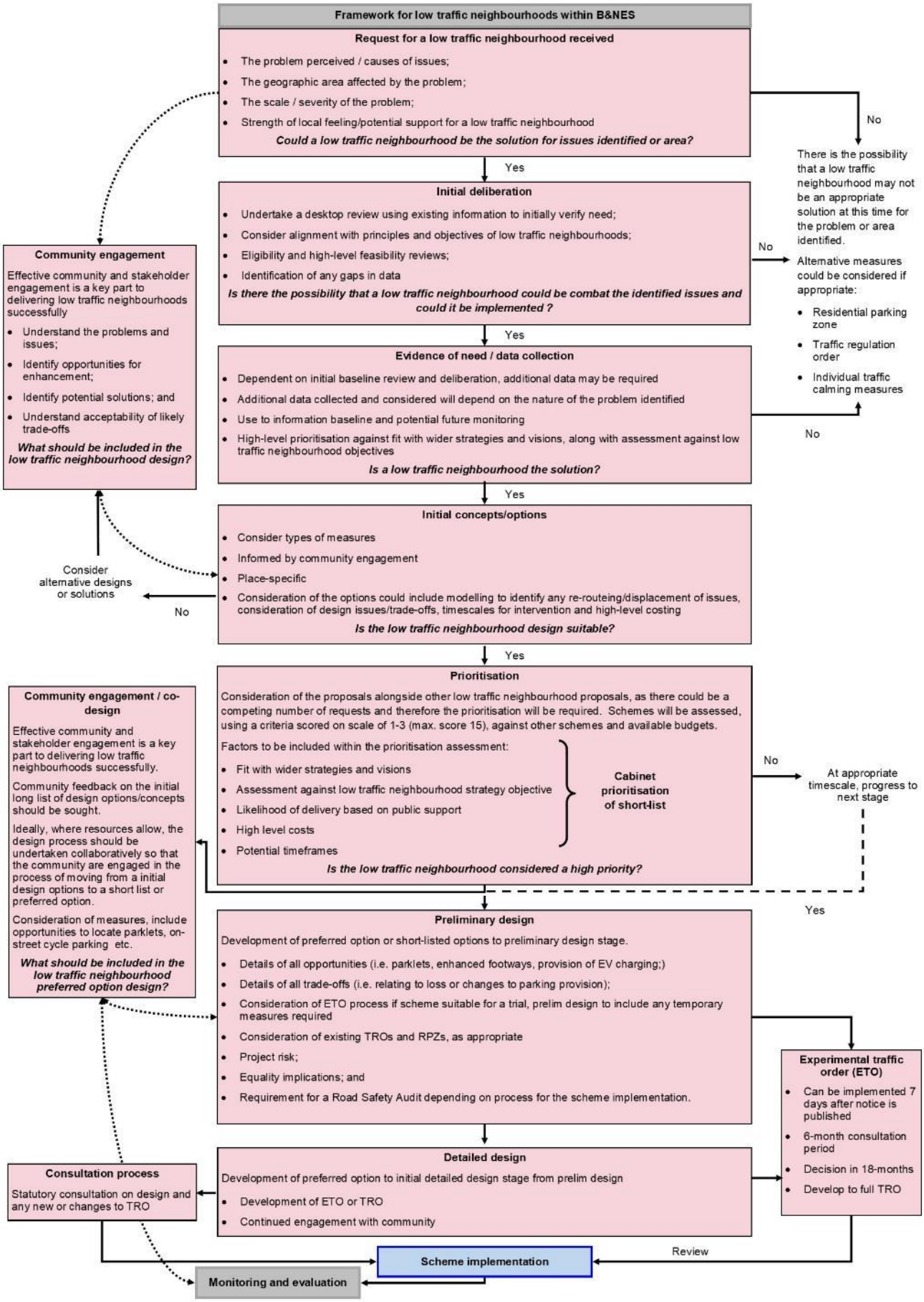


Figure 4-5: Expanded process flow for delivery of low traffic neighbourhoods in B&NES

5. Summary

B&NES Council recognise the importance of responding to the Climate Emergency, which demands a fundamental step-change in methods of travel by residents, visitors and people who work in B&NES. Along with a wide range of initiatives, low traffic neighbourhoods are an important step in delivering the required shift to public transport, walking and cycling in order to reduce transport emissions.

Low-traffic neighbourhoods are not about rewarding one group of people while punishing another, but about making long-term decisions about how people travel. By delivering safer environments for people to travel by a range of sustainable modes. It is important that during the development of low traffic neighbourhoods, cognisance of the location and heritage of the neighbourhood is considered, particularly in the selection of interventions and materials.

This strategy sets out the approach to how B&NES will consider low traffic neighbourhood projects, reinforcing their development and implementation through an iterative, collaborative and holistic process. As proposals come forward and are developed and implemented, the associated ongoing monitoring and evaluation will inform the evolution of the strategy, framework, processes and prioritisation of schemes.

The initial development of the low traffic neighbourhood framework will further expand this strategy, to provide a basis for communities and B&NES Council to implement low traffic neighbourhoods. Prioritisation against other low traffic neighbourhood proposals, along with wider delivery programme and available budgets will be considered on a six-monthly rolling review.

Following adoption of this strategy, an interim review of the framework and policy approach should be undertaken within two years. This is to take account of schemes as they have been implemented and monitoring has commenced. As this document is dynamic in nature, minor changes to the strategy are proposed to be delegated for sign off by the relevant Director, in agreement with the Cabinet Member. A full review should be undertaken at a time when sufficient schemes have been implemented and monitoring evidence is available, prior to a revised strategy and framework being produced.

Appendix A. Policy context (detailed policy review)

Appendix B. Types of interventions and measures

Table B-1: Types of interventions and measures that could be used to create low traffic neighbourhoods

Type of measure		Could be considered when…	Pros	Cons	Considerations	Other considerations specific to B&NES
Road closures/ modal filter	General closure to vehicles	Area is being used as a cut through or a rat-run.	Offers opportunity to maintain and improve cycling and walking routes. Offers opportunity to improve public realm, provide additional parking for local use (including EV) Potential to maintain two-way access on the street either side of the closure.	Can only be considered where there are other appropriate routes and where there is sufficient and safe provision for vehicles to turn (including for emergency service and refuse vehicles). Installation of the modal filter and provision of space to turn may lead to a reduction of parking spaces. May be seen to hinder local access.	Location of road closure should be considered. Closures at one end enable junction heads to be used for bus stop / loading / parking. Closures half way can enable turning circles.	
	Bollards	As above.	Lockable bollards or gates can help to ensure that access for emergency service vehicles is retained. Low cost and does not require kerb construction.	Issues over maintenance and ongoing cost of lockable solution. Can potentially slow emergency access.	Bollards should be placed 1.5m apart to allow for pedestrians and cyclists.	
	Bus gates	As above.	Can promote public transport priority and support commercial services. Can be enforced by bollards or ANPR cameras and therefore still allow for emergency services	Rising bollards can incur maintenance costs, as above. With ANPR only, the lack of a physical barrier means they can be ignored by some drivers. Ongoing operating costs also incurred and risk that they may not be fully covered by penalty fee income.	Suitability of overall scheme to the Traffic Penalty Tribunal needs to be considered.	Few bus routes through residential areas therefore unlikely to be necessary in some low traffic neighbourhood locations.
	Planters	As above. Potentially for temporary use or trial due to low cost.	Can be temporary and low cost, therefore good for trialling an idea. Opportunities for sustainable drainage.	When used only as a width restriction to a street, as in Enfield (Fox Lane), it was found that temporary planters did not reduce the traffic levels. Ongoing maintenance requirement, to which resources would need to be allocated (whether Council or community).	Signage/ reflective material may also be required to ensure clarity. Consideration of whether use is for width restrictions only, or modal filters (accompanied by TRO). Maintenance required – but should be adopted by community as part of the agreement.	Potentially additional street clutter changing historic street patterns of World Heritage Site, within Bath.

Type of measure		Could be considered when…	Pros	Cons	Considerations	Other considerations specific to B&NES
	No-entry signs	As above.	Still enables access for emergency services / bus routes. Can be time specific	Possibility of being ignored by drivers.	Enforcement powers for traffic and moving offences are currently not available to B&NES, therefore the intervention may not be as successful. The Council only have powers to enforce no-entry restrictions when signed as a bus gate.	Potentially additional street clutter in the World Heritage Site, within Bath.
One-way streets		Area is being used as a cut through or a rat-run.	Reduce rat-running through residential areas. Can provide increased street space for public realm improvements or parking (including EV). Potentially less impact on local trips (compared to road closures).	Can increase traffic speed, with potential enforcement issues. Dependent on the existing street pattern, it may not provide substantial opportunities for public realm improvements. Likely seen as less cycle friendly than road closures.		Consider in conjunction with traffic calming / speed reduction features and contraflow cycling options.
Time-limited access restrictions	Time-limited signage enforcement	There is a need to restrict movements at specific times, e.g. in peak periods	Reduce traffic at busy pedestrian periods. Potentially less hindrance to local trips than full closures	This does not offer all day / area wide advantages and therefore may not offer public realm improvements or social enhancements. May be ignored. Potential confusion for drivers. Potentially confusing for residents.	Enforcement powers for traffic and moving offences are currently not available to B&NES, therefore the intervention may not be as successful. Current legislation only enables the Council to enforce access restrictions that provide an exemption for buses.	Potentially additional street clutter in the World Heritage Site, within Bath.
	School streets	There is a need to restrict movements at specific times, in relation to the school run.	Could be implemented through bollards which, for school streets, schools could raise themselves. This may be easier to gather support for. Can be done with under TRO with no physical barrier, just signage and vehicle ban enforcement (by police) within restricted zone.	If bollards are proposed, there may be issues over maintenance and ongoing costs. Can potentially slow emergency access. TRO and vehicle ban requires enforcement by police, with resources potentially not available.	Birmingham have recently implemented signage and a vehicle ban reinforced with a £50 fine for driving in the restricted zone. It is currently being trialled via an ETO with proposals for enforcement by the police.	Would add to the continued efforts of B&NES reducing traffic and air pollution around schools.

Type of measure		Could be considered when…	Pros	Cons	Considerations	Other considerations specific to B&NES
Width restrictions		For residential areas used by large volumes of HGVs	Potentially easier to gain public support for intervention (compared to closures or one-way). Street narrowing can provide opportunities for public realm improvements.	Often don't deliver a broader range of benefits, in terms of traffic reduction. Traffic may remain too high for children to play out and traffic speeds may not decrease significantly on such roads.	Width must retain access for emergency service and refuse vehicles etc. Can only be enforced by police.	Have been implemented in residential areas of B&NES although initial feedback indicate enforcement is required for success.
Traffic calming / Speed limit reduction	Speed humps / tables / cushions	In residential areas where traffic regularly exceeds 20 mph.	Sinusoidal speed humps are cycle friendly. Speed tables are beneficial for bus routes as reduces the impact on passengers. Speed cushions can be straddled by vehicles with wider wheelbases, such as emergency vehicles so there is little deflection.	Sinusoidal speed humps may create delays for emergency services, if not installed correctly. Speed tables does not always have the desired impact for vehicle and can create noise and vibration issues. Can be costly to install and maintain. Speed cushions could encourage vehicles to swerve to avoid them which puts other road uses, such as cyclists, at risk.	Generally not favoured by bus operators if provided on bus routes. Speed humps should be no less than 100m intervals, more ideally at 150m intervals. Could be appropriate to introduce waiting restrictions alongside as parked cars could result in issues on narrow streets.	
	Wide car parking spaces	In areas where speed humps / tables / cushion creates access issues such as near to cross roads.	Will visually narrow the road reducing speeds along the road.	Provide risk for cyclists if narrow road widths result in over taking closely to cyclists.	These were implemented successfully in Enfield (Fernleigh Road).	This may require revisions to any TROs for existing residents' parking schemes. This could also provide opportunities for the provision of on-street electric vehicle charging infrastructure.
	Traffic islands	In residential areas were traffic regularly exceeds 20 mph.	Provide informal crossing points for pedestrians or protects space for right turning vehicles.	Provide risk for cyclists if narrow road widths result in overtaking closely to cyclists.	Traffic islands can be seen to be reinforcing the message of car dominance within modal hierarchy	
	Junction build-out	Crossings across minor roads at their junction with through roads around periphery of scheme.	Can slow vehicle speed thought tighter geometry. Advantageous for pedestrians as reduce the space that pedestrians have to cross.		Impact of the junction build out on speed, flows and accidents varies based on design.	

Type of measure		Could be considered when…	Pros	Cons	Considerations	Other considerations specific to B&NES
			Creates additional space for planting or cycle parking.			
Parking reductions / restrictions	Remove non-residential parking (paid or unpaid)	Shopper or commuter parking is drawing traffic to/through an area	Reduction in on-street parking by non-residents therefore reduction in circulating traffic seeking spaces.	Potential to increase parking on the outskirts of the residential parking zones. Requires enforcement.	Impact on Council budget of removal of pay & display parking.	Impact of parking on the edge of the clean air zone due to be implemented in Bath by the end of 2020. As a tourist city, parking provision is heavily sought after.
	Double yellow lines	Around junctions (for 5m) to improve sight lights	Improving pedestrian crossing by improving visibility	Reduces car parking spaces and requires enforcement.		
	Residents' Parking Zone	Within the low traffic neighbourhood area where no parking restrictions are in place. Existing residents' parking zones could be altered in terms of area, hours of operation, regulations (number of cars / household).	Reduction in non-residential parking therefore reduction in the circulating traffic. Encourages the consideration of alternative modes for short trips to an attractor in the location. A reduction in the number of parking spaces / number of cars per household could also contribute towards aims in the climate emergency.	Potential to increase parking pressures elsewhere. Potential for objections from local stakeholders and residents.	Should consider the local area in terms of attractors such as health centres, businesses and employment.	B&NES residents' parking scheme guidance should be followed in developing any new residents' parking zone.
Junction and crossings	Pedestrian/ cycling junctions	Joining cells with other cells across a main road.	Zebra style crossings prioritise pedestrians. Generally, for use in low speed areas.	Signalised crossings require consideration of the pedestrian and traffic volumes to ensure delay for users is reduced.	Where feasible this should include pedestrian and cyclist crossing, possibly in the form of include tiger crossings, parallel signalised crossings rather than shared crossings. Signalised crossings are more expensive to maintain than zebra crossings.	These could be used to link low traffic cells with B&NES' wider movement strategy highlighting walking routes across the city. Crossings should ensure that they are not obstructive with the streetscape.

Type of measure		Could be considered when…	Pros	Cons	Considerations	Other considerations specific to B&NES
	Blended / "Copenhagen" crossings	At side streets on the edge of a low traffic neighbourhood.	Reinforce pedestrian / cyclist priorities and the boundary to a low traffic neighbourhood.	Consideration for the visually impaired or those with children as the pavement is emphasised over the road.	Should be considered were vehicle speeds are low.	Blended crossings, in accordance with the B&NES Streetscape Manual, are preferable as are less obstructive to the streetscape.
Public realm improvements	Reimagining the road space	In low traffic and low speed environments around key attractors (shops) or as a gateway to residential areas	Environmental and public realm improvements	Less successful in areas of high traffic volumes. Consideration for those with visual impairments, particularly the installation of guides such as delineations.	Should be implemented alongside other measures such as speed reductions and possibly traffic reducing schemes as traffic volume should not exceed 3-4000 vehicles per 24 hours[31].	Consideration of materials within Conservation Areas
	Pocket parklets	In low traffic and low speed environments In conjunction with modal filters and road space reallocation (on-street parking space)	Small green spaces to improvement public realm and community cohesion Provide free spaces for communities, somewhere to sit, chat and relax	Potential only to be used in conjunction with other traffic and speed measures, as traffic may still be too high for people to sit out or children to play	Both temporary or permanent applications. Implemented in Hackney, Stockport and Dalston[32] Likely to require a TRO amendment if provided in a road with an existing residents' parking scheme.	Consideration of materials within Conservation Areas
	Tree-planting, soft landscaping	When additional space is unlocked for example, through modal filters.	Improve drainage, biodiversity and green infrastructure in the scheme area. Additional benefits for carbon off-setting.	Little impact on reducing traffic as a single option. Ongoing maintenance requirement, to which resources would need to be allocated (whether Council or community).	Popular for use in low traffic neighbourhood schemes as a complementary measure. Community Charter to outline responsibilities of ongoing maintenance.	Consideration of materials within Conservation Areas

[31] https://cyclingsolutions.info/shared-space/
[32] https://www.livingstreets.org.uk/media/4590/parklets_tool_kit.pdf

Type of measure		Could be considered when…	Pros	Cons	Considerations	Other considerations specific to B&NES
Electric vehicle charging points		Additional space is enabled to facilitate appropriate locations for on-street electric vehicle charging implementation.	Environmental benefits from encouraging and facilitating the uptake of electric vehicles,	May not reduce overall traffic with a neighbourhood.		Increasing uptake of electric vehicles and reducing vehicle miles in combustion engines is part of the aspirations for B&NES. Implementation of on-street charging should be in line with B&NES policy.
Cycle infrastructure	Cycle parking	On-street, within pocket parklets, on shopping streets	Encourages cycling to local amenities which contributes to a reduction in vehicles.	Cycle parking requires space which could be gained through a reduction of road space (i.e. on-street parking spaces) or where sufficient footway is available as to not impact pedestrians, i.e. locations such as build-outs or modal filters.	Cycle parking should be in secure, well-lit areas. Consideration of e-bike specific requirements is required. Management process for allocation of spaces in secure parking including costs and ongoing maintenance of the parking facility e.g. cycle hangar Ensure parking is designed so that it does not affect ability to sweep the street or attract litter.	In accordance with the Streetscape Manual, cycle racks should be the Sheffield design. It is noted that where appropriate, bespoke designs are encouraged. Cycle parking should be considered in B&NES as it is possible that due to the high number of flats, there is limited personal cycle storage.
	Cycle lanes	Segregated cycle lanes should be considered on main road with higher volumes of traffic and on routes to schools. The appropriateness of non-segregated cycle lanes on quieter roads should be considered.	Segregated, continuous cycle lanes encourages uptake of cycling across a range of users and increases safety.	Segregated cycle lane requires additional space. This should not compromise pedestrian space.	Successful when reducing vehicle turning movements which cross the cycle lanes. Therefore, continuity of cycle infrastructure can be improved by modal filters. Likely to require reallocation of parking spaces or traffic lane to accommodate a cycle way. Maintenance options need to be defined, in terms of resources, scheduling and equipment requirements.	
Play Streets		Using temporary road closures	A low-cost way of reducing traffic temporarily to enable community benefits.	Little long-term benefits in reducing neighbourhood traffic.	A community-led initiative. Adults on the street, such as local parents, allow street residents to drive	

Type of measure	Could be considered when…	Pros	Cons	Considerations	Other considerations specific to B&NES
				to and from their homes at walking pace, while re-directing through-traffic.	

Appendix C. Low traffic neighbourhood case studies and best practice

Appendix D. Low traffic neighbourhood request proforma template

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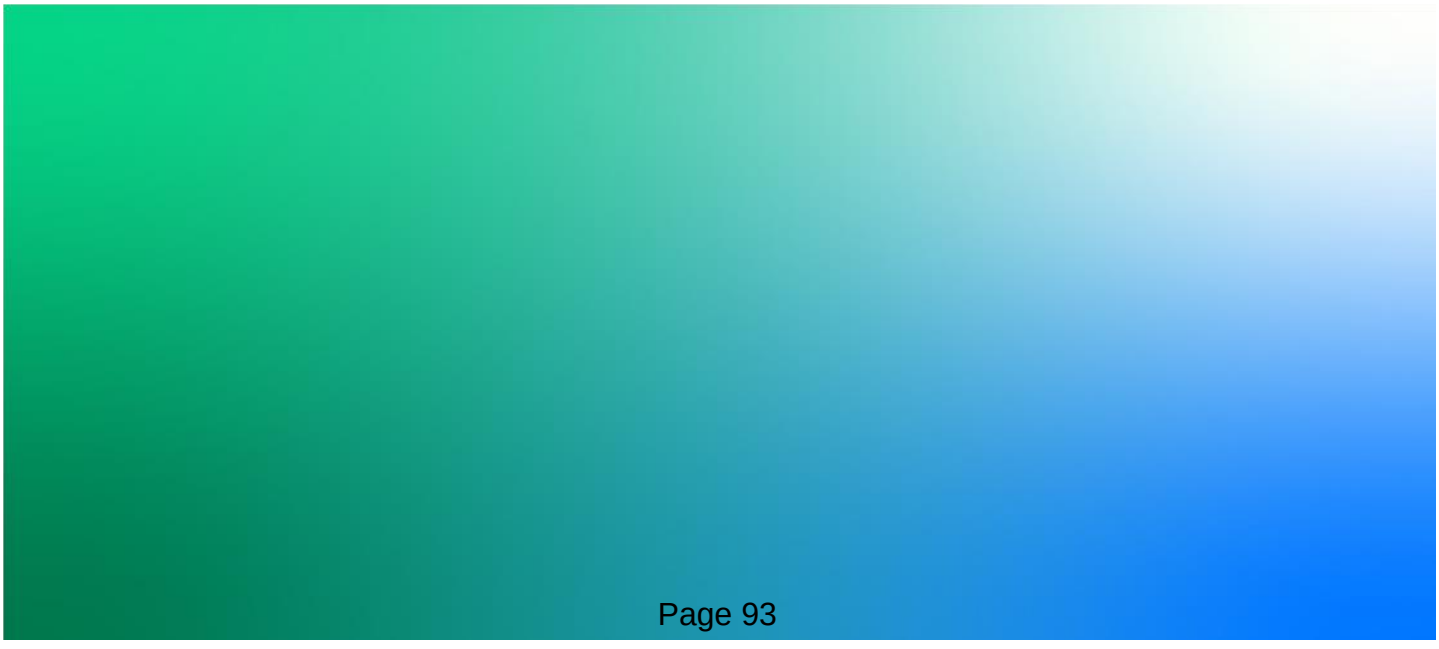
Residents' Parking Schemes

Draft approach to implementation of resident's parking schemes in B&NES

V2

May 2020

Bath & North East Somerset



Residents' Parking Schemes

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1	April 2020	Draft report	EA	RL	CA	
2	May 2020	Draft report following B&NES comments	EA	CA	RL	

Contents

1. Introduction

1.1 Context

The declaration of a climate emergency within Bath & North East Somerset (B&NES) in March 2019 outlined the resolution for the authority to be carbon neutral by 2030. This requires a transformational change in how people choose to travel and how goods are transported across the authority. The necessary revolution in the transport system requires the development of solutions at a local level which go beyond the schemes and policies set out in the newly adopted Joint Local Transport Plan 4 (JLTP4) and Getting around Bath Transport Strategy.

It should be noted that the proposals and principles of this strategy were developed before the Covid-19 pandemic and its emerging effects. Whilst the radical changes in travel behaviour, resulting from lockdown and social distancing, are not likely to be fully maintained in the longer-term, there will undoubtedly be a shift in how people choose to travel to work and home-working behaviours. Changes may include more flexibility in how and where people work, as well as how and when they travel. For example, there is likely to be more travel through active modes (walking and cycling), as well as a potential reluctance to use public transport in the short-term. Behaviours could also include an increase in driving to work in the initial return to work period, to observe social distancing if public transport is 'overcrowded'. These changes will all impact on the demand for on-street parking in different ways.

B&NES Council recognise the importance of responding to the climate emergency, which demands a fundamental step-change in methods of travel by residents, visitors and people who work in B&NES. It requires a major shift to public transport, walking and cycling in order to reduce transport emissions. Overall the Council, along with the other West of England authorities, recognise the need for overall vehicle use to fall substantially and for the vehicles that remain to produce zero carbon emissions. A wide range of initiatives will play a part in delivering this, including low traffic neighbourhoods.

"Low traffic neighbourhoods" are being successfully introduced both across the UK and abroad as a means of tackling traffic issues in communities. They are typically considered in predominately residential areas, where several streets are grouped and organised in a way to discourage through-vehicle traffic or "rat-running". Importantly residents remain able to drive on their streets, park on their streets and receive deliveries. Although it is noted that to be successful, strategies should also be in place to help reduce car ownership and usage by residents within any low traffic neighbourhood area, particularly as residents within urban areas generally have the widest levels of transport choice for any journey type.

Whilst these initiatives are being developed and implemented, there is a need to ensure the control and management of on-street parking is maintained, recognising that for some people and some trips, car use and ownership may still be required. Therefore reducing the intrusion of non-local vehicles into residential areas, through the combination of residents' parking schemes and other measures, provides opportunities to return neighbourhood streets to the people who live and work there and locate parking in areas where it is appropriate such as Park and Ride sites. Residents' parking schemes, where necessary, are one of the key ways in which this could be realised across B&NES; by managing on-street parking on residential streets and helping to create an environment which better encourages walking and cycling.

Residents' parking schemes have proven to be successful in certain areas of B&NES. The existing policy has enabled those schemes to be delivered in locations where there is a proven need for intervention. However, the previous application and implementation of schemes were as a reactive measure to issues and demand identified. The declaration of a climate emergency within B&NES and the emerging low traffic neighbourhoods strategy require an evolution of the existing residents' parking scheme guidance to allow schemes to also be considered strategically rather than locally. There is a noticeable difference in the level of on-street parking in residential areas within the city of Bath compared with towns and villages in wider B&NES, both in terms of the demand requirements for on-street residential parking, as well as the availability of off-street residential parking. This is already evident with the number and location of existing schemes operating in B&NES. Therefore, to affect changes going forward, a more proactive and strategic approach is required in the consideration and delivery of resident's parking schemes in the city of Bath.

This report sets out the [draft] strategic vision and key considerations for residents' parking schemes in the city of Bath. It also sets out the revised policy for the implementation of residents' parking schemes within wider B&NES. This revised approach has been developed through the review of the current B&NES residents' parking permit policy and consideration of how residents' parking schemes, separately or in conjunction with the low traffic neighbourhood strategy, could benefit local communities. This policy not only applies to the consideration of new schemes within B&NES, but also the review of existing schemes where necessary, particularly in conjunction with development and implementation of low traffic neighbourhoods.

1.2 What is a residents' parking scheme?

Whilst it should be noted that there is no right to park on the highway – the only legal right being to pass and re-pass - it is sometimes desirable to introduce residents' parking schemes to control the existence of on-street residents' parking and to discourage short-term resident, shopping or commuter parking, which should be encouraged to make better use of more appropriate off-street facilities or remove the need for vehicle use completely. In some areas, this non-residential parking might prevent residents who have no off-street facility (forecourt, drive. garage etc.) finding a parking space reasonably close to their home.

Traditional Traffic Regulation Orders (TROs) are used to alleviate any access, road safety or environmental problems associated with high levels of parking, but these offer no priority to the residents affected with both residents and non-residents would be equally impacted by any such restrictions.

It is however possible to give priority to residents by introducing residents' permit-holders only parking schemes and defining various parts of the highway where parking may be permitted only if a valid permit has been issued by the Council. Permits are normally only issued to residents living on a street within the zone and are under the control of, and issued at, the discretion of the Council. All existing B&NES schemes operate in this way with provision for residents generally being within permit holder only or shared use bays. More information on current B&NES residents' parking schemes is summarised in section 2.1 of this report.

1.3 Key considerations

This document outlines the strategic vision for residents' parking schemes in the city of Bath. It sets out the approach for the review of all current schemes, as well as in the context of the strategic requirements for road-space and on-street residential parking within Bath. Previously, the way in which residents' parking schemes were often prioritised could sometimes be subjective. Therefore, by moving from a demand-led approach to a more proactive and holistic approach, this allows the inclusion of additional criteria to understand the level of dependency with other schemes (i.e. low traffic neighbourhoods) or the delivery of wider transport strategies within Bath.

Recognising that the vision outlined for Bath may not be reflective of issues and areas within wider B&NES, this document also sets out a clear guidance and rules to enable the introduction, operation and enforcement of residents' parking schemes where demand has been identified. It is important that these rules, as far as possible, take into consideration the various needs of residents and other road users across the Authority.

Residents' parking schemes by their very nature vary widely in terms of how the scheme might aim to serve the residents' needs, due in a large part to the existing characteristics of the zone to be considered, in particular the use of and availability of kerb space. Residents' parking schemes aim to give priority to permanent residents over commuters and visitors to the area, particularly those with limited off-street parking facilities.

However, in order to be able to affect the behaviour change required to respond to the climate emergency and to further encourage commuters and visitors to use more appropriate locations to park (i.e. Park and Ride, off-street car parks), it is necessary to review and deliberate the timings of existing and potential residents' parking zones. By not having schemes operational in the city of Bath seven-days-a-week, this could undermine efforts to reduce travel by private car and better encourage more sustainable transport choices for commuters, shoppers and tourists.

It is recognised that residents' parking schemes still need to address local issues and demands, although residents should not automatically assume there will always be available spaces within their zone, as the issue may be too many cars owned by residents who are entitled to permits. As part of any residents' parking scheme design, a review of the appropriateness of any current restrictions should be undertaken.

It is essential that the cost of administering the scheme is reflected in the cost of the permits, to enable all schemes to operate on a cost-neutral basis. Any surplus generated will be reinvested in the development, review and maintenance of low traffic neighbourhood and parking schemes.

Community engagement, through local council representatives, is important from the start of the process including: identifying issues and opportunities; through to development of proposals; and active feedback and monitoring. Engagement is essential to ensure the identification of solutions are locally supported.

Early engagement also provides the opportunity to inform communities of what the scheme aims to achieve, whilst moderating expectations by outlining levels of influence and potential timescales. These issues are important to discuss early and honestly. However, when considering the delivery of wider strategic transport aims, a balance will likely be required, with communities not having a veto on the implementation of a scheme where it is required to achieve strategic transport needs.

1.4 Purpose of this document

This report outlines the policies for the development and use of residents' parking schemes within B&NES, linking where necessary to the low traffic neighbourhood strategy and the parking strategy. Whilst Bath is the predominant focus of this document, the policies will be applicable throughout the B&NES authority area.

The structure of this document includes:

- the principles of residents' parking schemes in B&NES;
- the approach to implementation of residents' parking schemes in B&NES; and
- summary and next steps

This [draft] revised policy approach document supersedes the existing residents' parking scheme policy, to sit alongside the [draft] low traffic neighbourhood strategy and policy approach, as well as the [draft] on-street electric vehicle (EV) charging strategy, which reflects opportunities and considerations for EV charging infrastructure within B&NES.

2. Principles of residents' parking schemes in B&NES

A number of residential streets in Bath, Keynsham and other towns are frequently subjected to extensive parking by shoppers and commuters. In these areas, residents have expressed concerns that this often prevents them parking their own vehicles, or those of their visitors, close to their homes.

This section summarises the existing provision of residents' parking schemes within B&NES. It also outlines the types of parking restrictions and permitting available within B&NES. However it should be noted that with any scheme, a permit does not guarantee the availability of a parking space.

2.1 Current provision

According to census data, car ownership in B&NES increased from 85,670 in 2001 to 92,628 in 20111. This equates to 125 cars and vans per 100 households, which is greater than the average across England (116 cars and vans per 100 households). Since 2011, the DfT's national travel survey (20182) estimates the average car ownership in England has increased to 121 cars and vans per 100 households, an increase of around 4%. If a similar increase is applied to car ownership levels in B&NES, this would equate to approximately 130 cars and vans per 100 households. The average car occupancy rate within Bath is 1.1 persons per car.

Residents' parking schemes, or zones, have been implemented in B&NES within Bath and Keynsham to-date, these have been summarised below. There is also currently a small bespoke scheme in place in Peasedown St John.

The Bath Transport Action Plan outlines that 35% of car trips within B&NES are less than 5km, whilst these contribute to congestion and poor air quality, they account for just 7% of total distance travelled. There is huge potential to encourage mode shift for these shorter trips.

2.1.1 Bath

There are currently 22 residents' parking zones (RPZ) within Bath, illustrated in Figure 2-1.

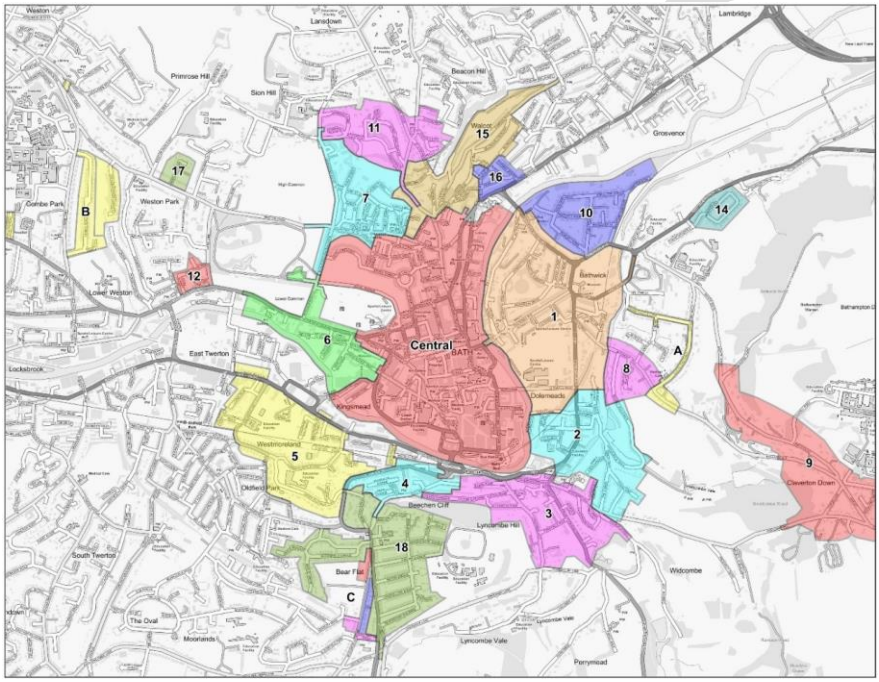

Figure 2-1: Bath – residents' parking zones

[1] https://www.bathnes.gov.uk/services/your-council-and-democracy/local-research-and-statistics/census-and-population
[2] https://www.gov.uk/government/statistics/national-travel-survey-2018

Whilst some residential areas currently benefit from residents' parking restrictions, there is not full coverage across the city.

2.1.2 Keynsham

A Keynsham parking study (2016[3]) highlighted that residential parking was reaching capacity and that residents' parking zones may be required.

A single residents' parking zone has been implemented to date within Keynsham, as shown in Figure 2-2, which covers Mayfields, Rock Road and Labbotts.

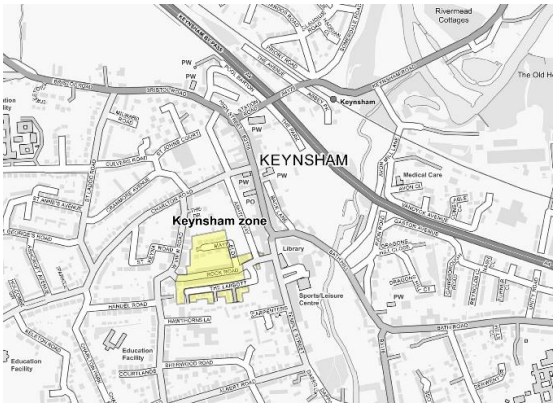

Figure 2-2: Keynsham Residential Parking Zones

2.1.3 Existing permit types

Existing permits are combination of digital and paper available to residents and specific businesses if their property is located within a designated residents' parking zone.

Digital permits require no physical permit to be displayed within the vehicle. The permit information is linked electronically to a vehicle registration and the permit holder's address. The digital permit provides much greater protection against fraud and helps prevent misuse. As there is no physical permit, the permit cannot be lost or stolen.

2.1.4 Future provision considerations

Within Bath it is possible that pressure from residents may grow, due to concerns about increases in non-residential parking in some areas from commuters and non-permanent residents. Particularly as in these areas traffic, which is not through-traffic but also does not have a direct local destination, is drawn into residential areas in search of on-street parking spaces (sometimes known as park and stride). This can lead to calls from residents for additional areas to be designated as residents' parking zones.

There may also be concerns over potential displacement resulting from low traffic neighbourhoods and other transport schemes, as well as after the implementation of the CAZ (as vehicles seek to avoid the charge). Although it is accepted that the location of the various residential parking zones and other existing TROs, such as double yellow lines, already limit the areas available to park immediately outside the CAZ boundary.

The climate emergency requires a fundamental step-change in methods of travel by residents, along with visitors and people who work in B&NES. This includes:

- reducing the need to travel (particularly by private vehicle) by encouraging working from home and other sustainable solutions;
- facilitating more active and sustainable travel by the development of model filters, wider pavements and cycle lanes to the detriment to on-street parking provision; and
- encouraging significant changes in attitude towards car ownership (such as zero-emission vehicles, use of car clubs or reducing numbers of vehicles per household).

However, even if people choose to travel differently, this may not necessarily reduce the number of vehicles parking on-street. For example, if a resident decides to change their vehicle from petrol to zero-emission, on-street parking may still be necessary along with the potential added requirement of on-street EV charging opportunities. Similarly, choosing to travel more sustainably may not result in people giving up their cars completely, but instead may result in households considering the number of vehicles they own and therefore possibly reducing the demand for on-street parking per household.

[3] Keynsham Parking Survey Review - https://www.bathnes.gov.uk/sites/default/files/siteimages/Parking-and-Travel/20170511_task_5_technical_note_v8-final_issue_revised-djl_080917.pdf

The introduction of low traffic neighbourhoods and delivery of wider transport strategies are likely to change the way residential and non-residential parking is considered within B&NES, which in turn could lead to an increase in requests for new residents' parking schemes or amendments to existing resident's parking zones. Careful consideration should be undertaken in relation to residents' parking zones and the interaction between any proposed zone and proposals for low traffic neighbourhoods, whether one option or a combination of both provide the solution to non-residential parking concerns in a particular area.

2.2 Benefits and disbenefits of a residents' parking scheme

As previously stated, residents' parking schemes provide the ability to better manage on-street parking within residential areas. In conjunction with low traffic neighbourhoods, they also provide opportunities to:

- reduce the impact of traffic and on-street parking on residential streets;
- improve air quality;
- rationalise use of road space to enable the reclamation of areas for public realm improvements; and
- helping to create an environment which better encourages walking and cycling.

When considering residents' parking schemes, the benefits and disbenefits of schemes need to be carefully considered. Some of the key advantages and disadvantages have been outlined below.

Advantages:

- Residents having no off-street parking facility would have a reasonable opportunity to park close to their homes, particularly those with mobility concerns (however residents' parking schemes do not offer any guarantees of a parking space and certainly not a parking space in front of the resident's own home).
- Can reduce traffic flows on residential streets, by discouraging the circulation of non-local traffic looking for parking spaces and particularly in conjunction with low traffic neighbourhood schemes.
- Can improve local air quality, by discouraging the circulation of non-local traffic looking for parking spaces and particularly in conjunction with low traffic neighbourhood schemes.
- Encourages use of alternative modes of transport, by removing on-street parking provision for commuters, non-permanent residents and shoppers.
- The amenity of the area would be improved with vehicles being parked in a more orderly fashion and reducing obstructions for service vehicles.
- Could provide opportunities for the implementation and enforcement of on-street EV charging infrastructure use within the scheme's TRO.
- Limits residents' from keeping unlimited numbers of taxed vehicles on-street, therefore aligning with climate emergency and wider transport strategies in encouraging the reduction of private vehicle use.
- A scheme may also have benefits from a social, community safety, housing or planning policy aspect.
- Shared use bays give equal opportunity parking to motorists not visiting residents and also provide for short-term visitors without the need for visitor permit administration systems.

Disadvantages:

- Still encourages the ownership and use of private vehicles, rather than major shift to public transport, walking and cycling in order to reduce transport emissions to respond to the climate emergency.
- A residents' parking scheme in one area might create or worsen parking problems in adjacent areas.
- Residents are restricted to parking within their own zone and cannot use adjacent zones when capacity is exceeded.
- Could reduce the provision of on-street EV charging infrastructure, as use may be limited to residents' only.
- Could inhibit activities of commercial and other non-residential activities within the zone, especially retail areas.
- By formalising the parking layout, a net loss of spaces may result when turning movements, access and visibility at junctions are protected by new parking prohibitions, as well as consideration given to the need for cycling and walking infrastructure to support active travel options.
- Parking spaces for residents and visitors could at times be inadequate, due to parking availability and restrictions.
- Shared use bays give equal opportunity to all motorists not just those visiting residents, which could mean limited availability for longer-term visitors.
- Permits to park in the area are charged for all the residents within the zone area.
- Numbers of permits per household will be restricted if a property has off-street parking or if the property is redeveloped.

2.3 Types of residents' parking restrictions

There are three possible types of residents' parking restrictions used within schemes across B&NES, these have been summarised in Table 2-1 below, along with key operational features and considerations.

Table 2-1: Types of residents' parking restrictions in B&NES

Type of restriction	Operational features	Considerations
Exclusive permit spaces	A street would be divided into prohibited and permitted parking areas. In order to park in the permitted parking areas a vehicle would be required to hold a valid permit. Permits would be issued to residents, visitors and other such persons as the issuing authority sees fit (e.g. carers) in accordance with the rules and criteria set out in writing by the issuing authority.	Most common form of residents' parking restriction within B&NES. This restriction would limit any commuter or non-local residential traffic from parking within the area. This system provides optimum benefit for residents and their visitors. The layout of the scheme may also reduce the number of current parking spaces available (net loss), as the streets are rationalised to ensure the safety and access of other road users.

Type of restriction	Operational features	Considerations
Shared spaces	The restriction designates areas for permitted parking to be controlled as dual use, i.e. time limited, which may or may not be charged for and residents' parking. Any vehicle displaying a valid residents' parking permit would be exempt from any charge or time restriction. It is essential that the balance between the needs of residents and other vehicles is carefully considered.	Can be more time consuming to enforce. Although reduces the need for the costly administration of a complicated permit scheme to accommodate the needs of different users (visitors, trades people, carers etc.) This restriction would still limit any commuter or non-local residential traffic from parking within the area but would also allow time-limited parking for additional uses within the area. Can be used in combination with exclusive bays, which if carefully designed, can produce a satisfactory compromise.
Exemption from on-street parking charges	The method of operation is similar to shared spaces above, with the exception that the non-residents pay for their short-term stay with a maximum stay defined by the Order. Permit holders would be exempt from any charges.	Such an approach to residents' parking schemes would require careful economic modelling. This restriction would still limit any commuter or non-local residential traffic from parking within the area but would also allow time-limited parking for additional uses within the area.

As an alternative to the above three approaches, it would be possible to give residents an amenity benefit and some degree of priority, without the need to implement a residents' parking scheme, by introducing a waiting prohibition for a short period each day. Used in areas subjected to long-stay commuter parking, this approach has been successfully implemented in some local authorities with restrictions for example between 12:00 and 13:00 used around areas such as railway stations.

These orders are generally easy to enforce by Civil Enforcement Officers. However, this may also be inconvenient to some residents and would be unlikely to deter short-term shoppers using local facilities. This type of order is better suited to areas with severe commuter problems (e.g. around railway stations) and in areas where the majority of properties have off-street parking places.

A system for dealing with visitors will also need to be considered. The charges for such permits must aim to recover the administrative cost and be restricted in the numbers available to each property. This is preferable through digital permitting but could also include scratch cards or additional paper permits if a need is identified.

2.4 Operating a residents' parking scheme in B&NES

2.4.1 Permit types and criteria for issue

Resident permits

Resident permits will only be issued to residents owning or keeping vehicles that live within the residents' parking scheme and stay at the property a minimum of four nights per week throughout the year. It may be necessary to limit permits to one or two per property or similar type of restriction aimed to control the issue of permits. Limits are currently in place within some residents' parking zones in Bath, particularly Central Zone, where only one permit per household is allowed. The permit entitlement to all future and existing zones will be linked to the availability of off-street parking spaces. As part of the review of existing parking schemes, permit numbers will not be reduced for residents who currently live there, however the potential for a reduction in entitlement may take place when there is a change of occupants. The strict control on the number of permits available is considered essential to a scheme achieving its objectives. Such restrictions, when relaxed, eventually result in chronic parking problems caused simply by too many residents' vehicles and complaints that residents are paying for a scheme which offers no tangible benefit. The number of permits per property will be considered on a zone-by-zone basis and depend on local issues.

A resident is defined as a person living in a property, which has a frontage or vehicle access to a street named in the traffic regulation order for the residents' parking scheme. Flats are treated as separate addresses if they are separate for Council tax rating, but houses in multiple occupancy, as one address. New developments and the redevelopment of existing properties will be prevented from applying for permits where potential demand exceeds supply. Where supply does not exceed demand, local conditions will be considered with new developments (including redevelopment of existing properties) limited to one permit per dwelling, where available.

Proof of residency at an address within the zone is automatically confirmed through the validation of Council tax records. Where this validation is not successful, a mediated application will be required with valid evidence including a recent utility bill or other form of evidence as agreed with the issuing authority at its discretion.

The issuing authority may undertake random checks against permits to identify where frequent vehicle changes are occurring that may indicate misuse of the permit and require the permit holder to provide proof of ownership of the vehicles or entitlement to keep the vehicle at home. This may be particularly relevant when a resident has access to or use of one or more company vehicles. In such circumstances a letter from the company may be required and a transferable permit issued.

Permits do not have a surrender value; are non-refundable and subject to annual review. All residents' parking schemes must be self-financing, and the cost of the permits should cover the administration, management, maintenance and enforcement of the scheme. Proof of residency and proof of vehicle ownership or vehicle responsibility will be required where requested.

The Council reserves the right to refuse issue of permits, where the class of vehicle in specific cases is deemed unsuitable for the scheme. For example, where the size of vehicle would reduce available parking for other residents in the area. All permits are issued in line with the Terms and Conditions of the schemes as amended and published on B&NES website from time to time.

Business permit

Businesses operating within a residents' parking scheme are entitled to apply for either a business permit that may be provided to customers visiting the business, or a business permit that shows the vehicle registration mark (VRM) of a business vehicle used to undertake deliveries and is considered essential to the function of the business. For example, a delivery van for a florist, or a van used by a pharmacy to deliver medicine/prescriptions within the community.

A maximum total of two are available and these can be a combination of the types if required.

The charge applied will reflect the benefit based on the costs of enforcing the scheme and are equivalent to resident's permits. The costs are for administration and on-going management of the scheme and are non-refundable and subject to annual review.

Visitors' permits

Appropriate methods of accommodating visitor parking will be considered during scheme design. If visitors' permits are made available, they will be available to all properties whether or not they are in receipt of a resident permit. Proof of residency will be required for applicants, through the normal automated Council tax validation processes where possible.

Digital permits are the preferred method of managing visitors, with activation made via a mobile app or website, as well as via text or call from a mobile or landline telephone. It is also recommended that the issue of visitor permits be reviewed annually by survey to check for abuse and misuse of permits. If fraud is detected in specific areas it may be necessary to restrict or limit visitor permits to individual properties.

The use of digital permits provides greater flexibility to the user through self-serve and automatic renewal where appropriate, whilst also allowing a more proactive approach to be taken to the identification of misuse which places undue pressure of the availability of spaces by legitimate users.

Renewal of permits

It is the permit holder's responsibility to renew their permits before expiry. Parking control notices (PCN) issued for displaying an expired resident permit may not be cancelled.

Misuse and withdrawal of permits

The enforcing authority reserves the right to withdraw any permit that is misused.

In normal circumstances, the level and frequency of misuse of permits is very small and easily detected. Experience has found that the residents themselves are often the first line in enforcement, with the potential of withdrawal or invalidation of a permit often sufficient to halt any misuse.

Blue badge holders

A valid Blue Badge does not entitle a holder to park without a valid resident's permit in a zone; however, all Blue Badges holders that live within a residents parking zone are entitled to a free resident's permit for the appropriate zone, valid for the duration of their blue badge. This permit cannot be used in any other zone.

Blue badge holders would however be permitted to park in a residents' parking zone on yellow line restrictions under the national regulations and concessions for legitimate badge holders.

Tradespeople Permits

Many different 'trades' often request permits or use the Trades Permit scheme on a daily basis. These range from general building and property maintenance contractors, to mobile hairdressers and estate agents. If tradespeople need to use their vehicle on site, a digital permit is available which allows them to pay for parking in permit spaces on a pay and stay basis.

Supporting those receiving care at home

It's also important to consider how a residents' parking scheme may impact on vulnerable residents that are receiving medical or health and social care in their own home, and how these impacts can be removed or minimised. This is particularly important as there are both welfare and financial advantages to caring for those in need in their own home against that of a residential or hospital setting.

In many instances the introduction of some limited waiting bays would provide carers with the ability to park within a residents' parking scheme, however time-limits may be insufficient for some medical visits, or the locations may be not appropriate to the location of the visit.

Consideration should therefore be given to the introduction of digital permits that facilitate these types of visits, however the terms and conditions will need to be carefully considered and measures implemented to prevent misuse by the permit holder when not visiting residents, including when working at health centres. A digital permit will aid the introduction of these measures.

Hospitality sector

Bath is a large city which is visited by approx. six million tourists annually, many of whom will stay for an extended period time in one of the city's many hotels, guest houses or B&Bs, often located in residential zones. These visitors contribute to the local economy; however, consideration should be given to aligning any permit provision with the climate emergency and wider transport strategies, as well as discouraging private vehicle use into the city.

Security

The use of digital permits should be used as the default method of managing and monitoring residents' parking schemes. This is because they can and do reduce levels of fraud due to the ability of the system to be fully audited. Where any paper permits are required for specific circumstances, it is essential that they are not only printed to prevent forgery but are managed and issued in a secure way to prevent abuse. It should not be forgotten that a permit with a face value has a significantly higher value to a non-resident. Secure permits can be procured for use by the authority or alternatively the printing out-sourced to a specialist printer.

2.4.2 Charging for permits and enforcement costs

This can be a controversial issue as many residents consider that they are not the cause of parking problems and having paid their vehicle excise duty fee and/or council tax they are "entitled" to park on the highway in their own area free of any charge. However as previously mentioned, it is essential that all residents' parking schemes operate on a cost-neutral basis.

All such charges will be clearly set out and published in the consultation literature as the Terms and Conditions of residents' parking schemes (as published on B&NES website). There will also be a charge for visitor permits, where available.

A charge will be levied for each permit, with permits being valid for a period of six-months or twelve-months. The cost of each permit is for administration of the scheme and not for parking and therefore is non-refundable.

When considering the introduction of further schemes, the cost of enforcement should be considered as it can potentially be a significant cost to the enforcement authority. Different schemes will of course require different levels of enforcement. Those prone to very short-term commuter problems, or with significant areas of limited waiting, are likely to require more frequent patrols that those who suffer from long-stay commuters and which are predominantly permit holder only parking spaces.

3. Approach to implementation of resident's parking schemes in B&NES

The declaration of the climate emergency demands a fundamental step-change in methods of travel by residents, visitors and people who work in B&NES. Parking controls are an important mechanism for encouraging the shift towards more sustainable modes of transport, particularly how on-street parking is considered. The development of measures that consider road-space requirements (including the control of vehicles) and encourage sustainable and active travel need to be planned holistically prior to and throughout scheme implementation.

The London Cycling Campaign recently published the 'Climate Safe Streets' report (LCC, 20204) which details that in the UK, the average car is in use for only around 4% of the time, with parked cars having a considerable impact on space availability on local residential roads. The Centre for London has also published a report5 in March 2020 on reclaiming kerb space, which makes a case for considering on-street parking more proactively rather than as a reactive measure to issues.

The emerging low traffic neighbourhood strategy, along with wider transport priorities in B&NES, further make the case for a more strategic approach to managing on-street parking and the hierarchy of road space. However this requires a change in how on-street parking is considered within B&NES, particularly in the city of Bath, where on-street parking demand and issues are more acute.

The consideration of road-space and kerbside requirements, predominantly in urban areas, in light of the climate change agenda and Covid-19 pandemic are likely to include conditions for improved active travel infrastructure (i.e. wider pavements, cycle lanes, cycle parking etc.) as well as changing travel behaviours (i.e. increased potential for home-working and methods of commuting). Consideration must also be given to the effect of displaced parking caused by the introduction or changes to residents' parking schemes, as by moving the problem to another location may cause other significant issues for residents.

3.1.1 Bath

A strategic vision and approach for on-street parking within the city of Bath is being considered by B&NES Council, this will include residents' parking schemes and is likely to include:

- review of all existing residents' parking zones in Bath, in terms of boundaries, size and hours of operation;
- review of permitting and associated charges, to ensure schemes cover the cost of parking implementation and enforcement, as well as encourage modal shift;
- strategic city-wide review of on-street parking requirements in Bath, including the potential identification of new residents' parking zones, in collaboration with low traffic neighbourhoods and wider transport policy objectives;
- strategic allocation of road and kerb space with clear user hierarchy to reduce commuting and local trips by car; and
- consider existing and new technologies to manage kerb demand (i.e. digital permitting, automated charging etc.).

The outcomes of this strategic review will be a framework for potential changes to existing residents' parking zones, as well as a delivery plan for possible changes and expansion of schemes within Bath. The framework will also outline a programme and mechanisms for delivery (including short-, medium- and long-term timescales).

Consideration of residents' parking schemes within and outside of low traffic neighbourhood proposals

If the need for a new residents' parking scheme or changes to an existing residents' parking zone have been identified through the development of low traffic neighbourhood scheme, it is likely that the parking scheme will be developed alongside and incorporated within the wider low traffic neighbourhood scheme proposals (including prioritisation and consultation processes). This aims to limit any consultation fatigue; reduce the potential duplication of processes; and ensure key proposals, which may be reliant on the installation of residents' parking schemes, are not being programmed separately.

[4] https://lcc.org.uk/articles/climate-safe-streets-report-launch

[5] https://www.centreforlondon.org/publication/parking-kerbside-management/

However, if a low traffic neighbourhood scheme has been initially considered and it is found that a residents' parking scheme in isolation is more suited resolve acute issues in certain locations, then a scheme may be progressed and prioritised alongside existing and proposed residents' parking schemes. This would be outside of the low traffic neighbourhood process.

3.1.2 Wider B&NES

On-street parking problems within residential areas are not just confined within city of Bath. Other towns and villages within B&NES also suffer from unsuitable non-local, shopping or commuter parking within residential areas. Therefore, the approach and criteria outlined in **Appendix A** and **Appendix B** respectively been developed to ensure a consistent method for the consideration of residents' parking schemes within wider B&NES (outside city of Bath). Residents' parking schemes across wider B&NES should be considered, designed and implemented specifically for the local area and respond to local problems, issues and opportunities.

The summary process flow in Figure 3-1 below highlights the broad stages for new residents' parking scheme considerations and implementation within wider B&NES. Requests for a residents' parking scheme will generally be received from local members (via the proforma outlined in **Appendix C**) supported by their community wishing to solve a local issue within their area. Identification of potential residents' parking schemes or changes to existing schemes may also arise via work undertaken by the Council, for example as part of a low traffic neighbourhood scheme or in relation to the wider implementation of transport strategy and projects.

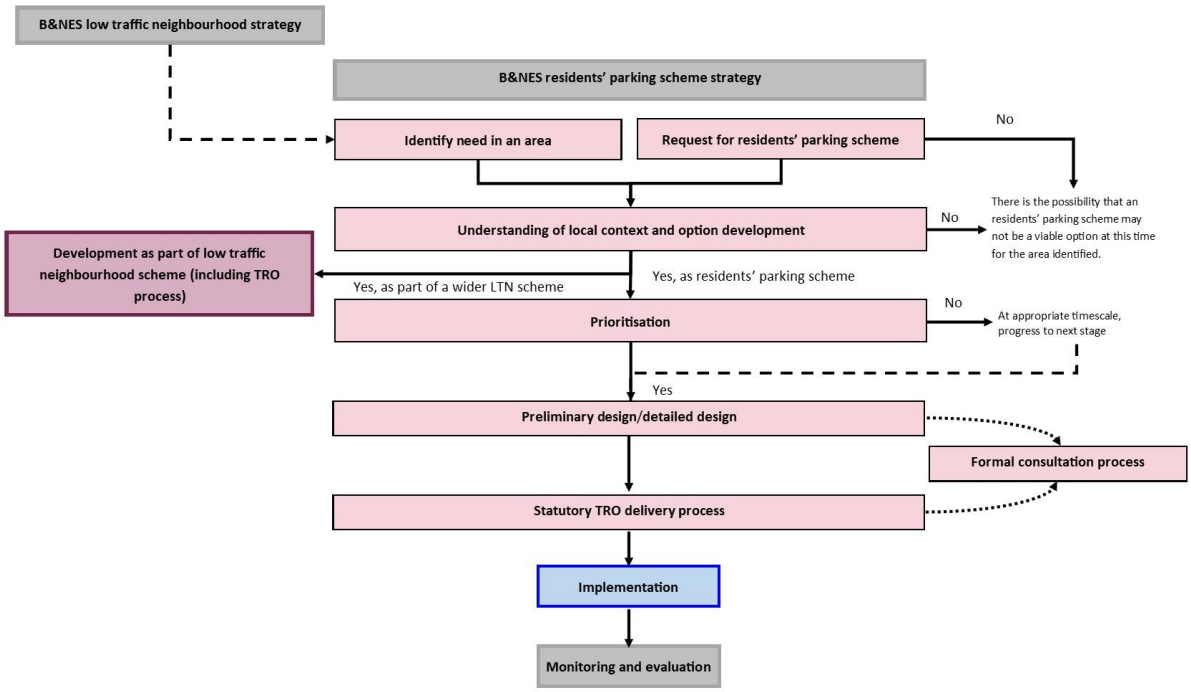

Figure 3-1: Summary process for delivery of new residents' parking schemes in wider B&NES

It is vital to reiterate the vision of residents' parking schemes is to maximise the number of residents' spaces, where possible, and to reduce the amount of commuter or non-local parking in residential areas whilst supporting the core policy requirements to increase active travel options in light of the climate emergency. It is important to note that on some streets within a proposed residents' parking scheme, the amount of parking that would be permitted within a formal scheme could be further reduced from what is currently available due to the need to ensure junction protection, access and passing places. Additionally in the development of low traffic neighbourhood schemes, interventions may also impact on the amount of parking permitted within an area.

4. Summary

B&NES Council recognise the importance of responding to the climate emergency, which demands a fundamental step-change in methods of travel by residents, visitors and people who work in B&NES. Overall the Council, along with the other West of England authorities, recognise the need for overall vehicle use to fall substantially and for the vehicles that remain to produce zero carbon emissions. A wide range of initiatives will play a part in delivering this including low traffic neighbourhoods.

Whilst these initiatives are being developed and implemented, there is a need to ensure the control and management of on-street parking is maintained, recognising that for some people and some trips, car use and ownership may still be required. Through the combination of residents' parking schemes and other measures, it may be possible to reduce the intrusion of non-local vehicles into residential areas, control on-street parking on residential streets and help create an environment which better encourages walking and cycling.

This report sets out the [draft] strategic vision for residents' parking schemes in the city of Bath, particularly in combination with low traffic neighbourhood projects. The introduction of low traffic neighbourhoods and delivery of wider transport strategies are likely to change the way residential and non-residential parking is considered within B&NES. This in turn could lead to an increase in requests for new residents' parking schemes or amendments to existing resident's parking zones. This requires the consideration of a holistic framework and proactive approach for on-street residents parking, including the review of all existing residents' parking zones within Bath.

This report also sets out the slightly revised policy approach for the implementation of residents' parking schemes within wider B&NES. A system has been identified to determine the priority for residents' parking schemes in B&NES, which will also be supplemented by the local knowledge obtained over a period of time, where possible.

Residents' parking schemes by their very nature vary widely in terms of how the scheme might aim to serve the residents' needs, due in a large part to the existing characteristics of the zone to be considered, in particular the use of and availability of kerb space. These schemes aim to give priority to residents over commuters and visitors to the area, particularly those with limited off-street parking facilities. However it should be noted that with any residents' parking scheme, a permit does not guarantee the availability of a parking space.

Appendix A: Approach to implementation of residents' parking schemes in wider B&NES

A.1 Introduction

On-street parking problems within residential areas are not just confined within city of Bath. Other towns and villages within B&NES also suffer from unsuitable non-local, shopping or commuter parking within residential areas, particularly if located adjacent or within walking distance of large trip attractors such as local high streets or large employment sites. Inappropriate on-street parking not only causes frustration for those living within the area, but it can also have access and safety consequences. Residents' parking schemes can rationalise on-street parking within an area, to encourage more sustainable travel choices or ensure parking is situated in more suitable locations (i.e. off-street car parks).

The 'Climate Safe Streets' report (LCC, 2020) details that in the UK, the average car is in use for only around 4% of the time, with parked cars having a considerable impact on space availability on local residential roads.

By encouraging sustainable travel choices, particularly for local trips, this offers the potential to influence levels of car ownership and the demand for on-street parking. However, as a consequence of people choosing to walk or cycle to work and using their car less (but retaining vehicle ownership), there may be an increase in demand for residential on-street parking, particularly during the day and where off-street parking is not available. This may result in the consideration or review of residential parking controls, such as residents' parking zones.

The following approach has been developed to ensure a consistent method for the consideration of residents' parking schemes within wider B&NES (outside the city of Bath).

A.2 Approach

Residents' parking schemes should be considered, designed and implemented specifically for the local area and respond to local problems, issues and opportunities. However, that said, it is important that there is a clear overall approach for identifying and taking forward residents' parking scheme proposals across B&NES. The summary process flow in Figure A-1 below highlights the broad stages for new residents' parking scheme considerations and implementation. The timeframe for this process will vary on a location-by-location basis, particularly when considering a proportional approach depending on the location and scale of local issues.

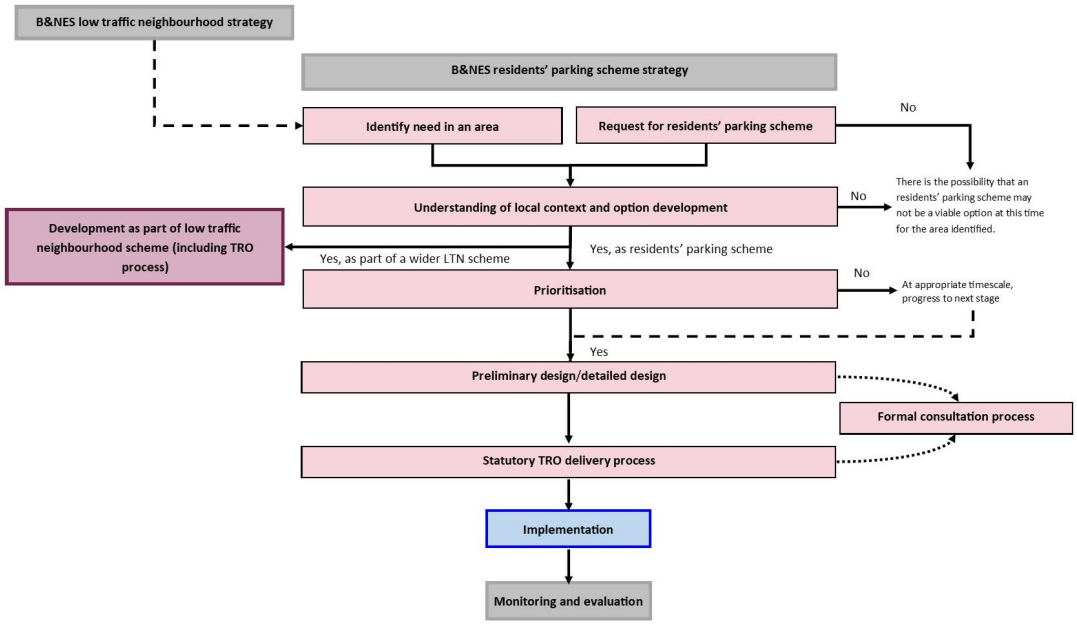

Figure A-1: Summary process for delivery of new residents' parking schemes in wider B&NES

Requests of residents' parking schemes

Requests for a residents' parking schemes will generally be received from local members supported by their community wishing to solve a local issue within their area. A proforma (**Appendix C**) has been produced to standardise the request process and outline the information required to be able to initially consider the local issues and opportunities.

Identification of potential residents' parking schemes may also arise via work undertaken by the Council, for example as part of a low traffic neighbourhood scheme (to enable the rationalisation of low traffic neighbourhood and residents' parking scheme boundaries) or in relation to the wider implementation of transport strategy and projects (i.e. to incorporate additional areas within an RPZ to mitigate any displacement of parking issues resulting from implementation of wider transport or high street improvement schemes).

Understanding of local context and option development

Once the initial request has been received, B&NES will (when appropriate) undertake a desktop review to understand the local context and consider the needs of residents and other users of the area. This may include:

- the use of the area (residential/commercial);
- property types (availability of off-road parking);
- key attractors in the area (i.e. schools, places of worship, shops etc.);
- loading/unloading requirements;
- review of any current restrictions;
- limited waiting areas for local business;
- the needs of the wider community; and
- links with delivery of low traffic neighbourhoods and/or wider transport strategies.

The objective of the scheme would be to maximise the number of residents' spaces, where possible, and to reduce the amount of commuter or non-local parking in residential areas whilst supporting the core policy requirements to increase active travel options in light of the climate emergency. It is important to note that on some streets within a proposed or requested residents' parking scheme, the amount of parking that would be permitted within a formal scheme could be further reduced from what is currently available due to the need to ensure junction protection, access and passing places. Additionally, in the development of low traffic neighbourhood schemes, interventions may also impact on the amount of parking permitted within an area.

When determining the layout and times of operation for a residents' parking scheme, the following must be considered, additionally to those points outlined above:

- maintaining traffic flow & visibility at junctions;
- safety of the public within the zone;
- bus stops and routes;
- the needs of blue badge holders;
- vehicle accesses;
- visitors and other categories of drivers who need to park within the zone; and
- active travel corridors and sustainable transport options such as on-street cycle parking

Consideration must also be given to the effect of displaced parking caused by the introduction of a residents' parking scheme, as by moving the problem to another location it may cause other significant issues for residents.

It is unlikely that the Council would have the financial or staff resources, in a single financial year or even over multiple years, to satisfy the current number of residents' requests for schemes and review the operation of the existing schemes. Therefore requests will be prioritised, by the application of a system which can be seen as fair and consistent, but also to account for the financial and staff resource constraints.

Based on the data identified during the request and initial desktop review, additional data may be required. This need should be based on the local issues and take account of any data gaps. If additional data is required and it is deemed appropriate, parking surveys may be undertaken. The surveys aim to obtain information regarding the demand by residents and the level and effect of non-resident parking, including daytime, evening and overnight use on weekdays and potentially weekends. However, if a scheme is identified as part of a wider transport strategy, it may not be necessary to obtain additional data; with existing information, anecdotal evidence and professional judgement of B&NES officers used to identify need.

The results of this process will give an insight of the actual demand for a scheme on a daily basis and whether a scheme will adequately provide for their needs and also inform a prioritised list of areas from which the Council could, subject to finance being available, select a number of streets to be considered for residents' parking schemes. In addition, the survey results would assist with the design and extent of a scheme.

Consideration of residents' parking schemes within and outside of low traffic neighbourhood proposals

If the need for a new residents' parking scheme or changes to an existing residents' parking zone have been identified through the development of low traffic neighbourhood scheme, it is likely that the parking scheme will be developed alongside and incorporated within the wider low traffic neighbourhood scheme proposals (including prioritisation and consultation processes). This aims to limit any consultation fatigue; reduce the potential duplication of processes; and ensure key proposals, which may be reliant on the installation of residents' parking schemes, are not being programmed separately.

However, if a low traffic neighbourhood scheme has been initially considered and it is found that a residents' parking scheme in isolation is more suited resolve acute issues in certain locations, then a scheme may be progressed and prioritised alongside existing and proposed residents' parking schemes. This would be outside of the low traffic neighbourhood process.

Layout of schemes

In determining the amount of available space for permitted parking and to ensure that all schemes are treated in a similar way, the following set of criteria has been adopted for maintaining available widths of highway for traffic movements. This criterion has been based upon guidance set out by the Institution of Highways and Transportation in "Transport in the Urban Environment".

a) One-way residential roads shall maintain a free carriageway width of 3.3 metres between marked bays.

b) One-way traffic with parking on both sides of the road requires a minimum width of 6.9m.

c) One-way traffic with parking on one side of the road requires a minimum width of 5.2m.

d) Carriageways carrying two-way traffic must retain a width commensurate with its function. E.g. a through-route may need to allow sufficient width for two HGVs to pass, whilst a small cul-de-sac may be able to function safely with a reduced carriageway width.

Schemes will be introduced on a zonal basis, as per existing schemes in B&NES. The introduction of residents' parking scheme across a zone provides greater flexibility by using spare capacity in one street to supplement another. Zone boundaries should remain logical and easily defined and not large enough to provide a benefit in vehicles 'commuting' whist remaining in their zone. Some benefits, such as the ability to use off-street car parks outside of controlled hours are not affected by zones and are provided on a discretionary basis by the Council.

Times of operation

In the case of a town centre, because the non-residential parking is often as a result of commuters, as well as retail and leisure trips, it is appropriate to start consideration with a seven-day (Monday to Sunday) scheme. However if problems are only identified on specific days of the week (i.e. Monday to Friday or Monday to Saturday), it may be more appropriate to consider five- or six-day schemes.

All vehicles, including those of residents are required to park legally at all times or may be subject to enforcement. It is important to remember that despite the public perception about what a scheme can deliver for the residents:

i. in most instances non-resident parking occurs during the day Monday to Friday;

ii. less, and more possibly no, enforcement resources would be available at night;

iii. a residents' only scheme will not solve problems caused by too many residents' vehicles unless unpopular restrictions are placed on the issue of permits and the numbers permitted per household; and

iv. all residents' parking schemes should be designed on a zonal basis with careful consideration of zone boundaries to prevent commuting within a zone.

Consideration of enforcement

Enforcement of residents' parking schemes tend to be during normal working hours, including where the schemes cross over with the night time economy, therefore it would be appropriate for the proposed schemes to be operational during times for which enforcement is provided, and times when commuter and shopping activity is greatest.

Enforcement outside of these hours will generally be on an ad-hoc basis. It is unlikely that sufficient enforcement resources will be available for schemes to be enforced regularly outside of the normal working day.

Prioritising potential areas for residents' parking schemes

There are few residential streets anywhere that at some time or another do not suffer from non-residential parking. It is appropriate therefore to establish a priority system, which discriminates in favour of areas experiencing high levels of non-residential parking to the exclusion of residents and where there are few opportunities for residents to park off-street. Problems due purely to the number of residents' vehicles, for example during the evening, when few or no non-residents vehicles are present will not be solved by such a scheme unless strict rules upon the hours of operation and permit issue are applied which restrict the residents themselves.

A system has been identified below to determine the priority for residents' parking schemes in wider B&NES. Any surveys undertaken should aim to help determine the extent of parking problems and the demand for residents' parking. Before prioritisation is considered, schemes should reasonably meet the majority of criteria outlined in **Appendix B**.

A minimum level of positive feedback from respondents must be agreed for a scheme to be considered viable to proceed to the next stage. Whilst a minimum threshold is not always necessary, particularly when delivering wider transport schemes or low traffic neighbourhoods that may require the implementation of a residents' parking scheme, a clear majority of respondents (over 50%) in favour of the scheme is preferred. Guidance on engagement and consultation are detailed in **Appendix D.**

It is essential that residents are clearly informed of the scheme rules that are not negotiable (e.g. if permit costs are applicable, the charge and, if applicable, the restriction of the number of permits per property or residents etc.) during the consultation process. It is therefore essential that the Terms and Conditions as agreed and published on B&NES website are distributed with the consultation documents.

Following the desktop review, any additional data collection and initial option development, schemes will be assessed, using criteria and scored on a scale of 1 -3 (max. score to be established based on number of categories) against other proposed residents' parking schemes. The prioritised list will then be considered against the wider delivery programme and available budgets.

Factors which are likely to be included within the prioritisation assessment are:

- **fit with wider strategies and visions –** whether the scheme assists in the delivery of low traffic neighbourhood schemes or wider transport strategies (based on the level of dependency with other schemes), this will be informed by the initial desktop review.
- **existing local conditions –** availability of off-street parking for residents, level of residents' parking and total occupancy throughout the day;
- **likelihood of delivery based on public support -** this will be informed based on the information gathered via proforma and any initial community engagement undertaken.
- **technical feasibility of solutions** - this will be based on an assessment of the deliverability of initial options.

- **high level costs -** an initial cost estimate should be undertaken. Whilst only an initial estimate with little detail on potential scheme designs, this should include high-level costs for any potential scheme based on comparable areas and problems tackled. Cost could include consideration of the feasibility, concept and detailed design stages, as well as costs associated with consultation and risk considerations.
- **potential timeframes for implementation -** this will be informed by consideration of potential scheme design, likely extent of community support/opposition and length of time for implementation, as well as funding opportunities.

The system will produce a priority list to assist B&NES cabinet in the decision-making process of where the limited resources could be allocated. B&NES cannot guarantee that the available budget in one financial year will be able to support all the possible applications. To ensure budgets are appropriate, B&NES may re-prioritise projects and requests, with consideration on a six-monthly rolling review.

Preliminary/detailed design of scheme

This stage of the process considers the full implications of design issues, timescales for intervention and cost. Designs should be in accordance with existing B&NES street design guidance and should consider, as appropriate, low traffic neighbourhoods proposals.

Risk and equality implications also need to be considered at this time.

Further community engagement will be carried out at this point. This is designed to identify problems/issues to be targeted, outlining objectives for the proposal as a whole. Following the preparation of a preliminary design, a full public consultation will be undertaken, with further information on the consultation process contained within **Appendix B**.

The results of the formal consultation are to be presented in a report, with any modifications to the scheme design resulting from consultations being actioned. The preparation of final detailed design proposals, including finalisation of preliminary design drawings is then taken through to the statutory TRO delivery process.

Statutory TRO delivery process and implementation

Depending on the final scheme designs, the relevant statutory TRO delivery process should be followed for implementation. This includes schemes being delivered on the ground in a timely and cost-effective manner.

Community engagement undertaken at this stage is tailored much more towards keeping people informed on progress of the implementation of an already agreed proposal. Therefore, options for change are far more limited. Ongoing communication with the community should be undertaken during the construction phase via newsletters, website, information boards etc. as appropriate.

Monitoring and evaluation

Monitoring of the residents' parking schemes will be managed and led by communities with technical support from B&NES with exact requirements defined and promoted at the discretion of B&NES. Monitoring may include, as appropriate:

- quantitative data on usage, enforcement and misuse; and
- qualitative surveys of community and business opinion.

Appendix B: Criteria for residents' parking schemes in wider B&NES

The following are regarded as the main criteria which should be met prior to the consideration of a residents parking scheme for prioritisation:

a) A bona fide need of residents is established, considering levels of kerb-side space occupation from Monday to Saturday inclusive.

b) Not more than 50% of the car owning residents have, or could have, parking available within the curtilage of their own property, or within 200 metres walking distance by way of garages or other private off-street space such as a driveway.

- A garage is defined as a building designed to accommodate a parked motor vehicle, with the minimum dimension being 5.0 metres long by 2.5 metres wide. Any garage that measures smaller than the minimum dimensions will not be classed as an off-road parking space.
- A driveway is defined as an area of land designed to accommodate a parked motor vehicle, with the minimum dimension being 5.0 metres long by 2.5 metres wide. Any driveway that measures smaller than the minimum dimensions will not be classed as an off-road parking space.

c) The design and introduction of a scheme should give consideration to the displacement parking in adjacent roads.

d) The authority should be satisfied that a reasonable level of enforcement of the proposals can be maintained by Civil Enforcement Officers.

e) The initial proposals should be acceptable to the greater proportion of the respondents due to the restrictive and fiscal impact of a scheme.

f) Permits for non-residential premises should be able to be limited in their use to essential operational use only.

g) In areas where parking space is severely limited, the introduction of reserved parking does not seriously affect the commercial viability of the area.

The above criteria should be used as a guide and be treated as reasonable requirements for a scheme. However, the details could be modified to accord with special circumstances, and it is therefore important to consider each scheme on its own merits.

Appendix C: Residents' parking scheme request proforma template

Appendix D: Community engagement and consultation

Community engagement and consultation can be powerful tools for improving the quality and cost-effectiveness of services, and for ensuring that the Council remains in touch with the community.

Development and Preliminary Design Phase

Engagement can often be included at multiple stages throughout the process but is particularly useful alongside the initial evidence of need stage. If a residents' parking proposal is given the go ahead to proceed following initial prioritisation, the first step should be to engage the community. Effective community and stakeholder engagement is a key part to delivering schemes successfully. Consideration to the level/intensity of engagement and key stakeholders at this stage should be considered. This should be informed by the initial indication of local support, the potential scale of the project, any impacts or opportunities it may deliver for businesses and community.

The purpose of this early engagement would likely be to:

- understand the problems and issues;
- identify potential solutions; and
- understand acceptability of likely trade-offs.

Key considerations should include the direct and potential indirect impacts of issues to residents and businesses, along with what people want from their neighbourhood that could be achieved within the remit of a resident' parking scheme. However, all discussions should be framed within an understanding of the requirements of those with disabilities or specific needs. Engagement with "harder to reach" groups within a community is particularly important, including older people, families with young children, unemployed residents, people with disabilities and people for who English is not their first language. Table D-1 provides examples of engagement methods that would be employed during engagement and consultation on residents' parking schemes. It is important that engagement is proportionate to the level of intervention or size of the scheme being considered.

Table D-1: Example engagement methods

Engagement method/technique		Types of stakeholders
Informal public forums, exhibitions or drop-ins	Share, collect and compile information, enabling topics to be discussed in an informal environment Inform the public of principles May provide an indication of levels of support	Residents, general public, individuals
Discussions with community representatives	Wider conversations with representative groups Empowerment of groups to engage locally	Residents associations, community groups, Councillors
Focused conversations with individuals or groups	Specific issues and requirements to be discussed Working through issues/concerns to identify solutions	Schools, disability groups, GP surgeries, emergency services, Council services
Design sessions	Working through issues/concerns to identify solutions and creating design responses with stakeholders	Residents, traders/businesses, community groups, schools, disability groups
General information sharing and updates	Share information on schemes and update/inform the public on progress, including: ▪ publication and notifications on B&NES website ▪ press articles and advertisements	Residents, general public, individuals

Each project will have an individually tailored consultation programme featuring all or some of the techniques referred to above; plainly the more extended and complex those processes become, the greater the cost. It is suggested that the proportion set aside for consultation should be **no greater than 25%** of the entire budget allocated for development and preliminary design.

Following the preparation of a preliminary design, a full public consultation including some or all of the methods outlined above. The results of the consultation will to be presented in a report, including level of support and any modifications to scheme design proposed. The consultation will be used to inform the preparation of final proposals, including finalisation of preliminary design drawings.

Detailed Design and Implementation Phase

Depending on the final scheme design, the relevant statutory processes should be followed for implementation of a traffic regulation order (including consideration to the Traffic Regulation Order Forward Plan). This will include statutory consultation as appropriate and include a minimum of 21 days for objections prior to the any TRO being made. Ongoing communication with the community is tailored to keeping people informed on progress of the implementation of an already agreed proposal, this may include newsletters, website, information boards etc. as appropriate. As such, requires proportionally less in terms of overall consultation budget costs. It should be noted that options for changing the scheme at this stage are far more limited.

Appropriate 'after' monitoring of residents' parking schemes should be undertaken to properly evaluate the impact of the scheme.

On-street electric vehicle charging strategy

Draft Strategy

May 2020

Bath & North East Somerset

On-street electric vehicle charging strategy

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Contents

1. Introduction and Vision

1.1 Context

The declaration of a Climate Emergency within Bath & North East Somerset (B&NES) in March 2019 outlined the resolution for the authority to be carbon neutral by 2030. This requires a transformational change in how people choose to travel and how goods are transported across the authority. The necessary revolution in the transport system requires the development of solutions at a local level which go beyond the schemes and policies set out in the newly adopted Joint Local Transport Plan 4 (JLTP4) and Getting around Bath Transport Strategy.

B&NES Council recognise the importance of responding to the Climate Emergency, which demands a fundamental step-change in methods of travel by local residents, visitors and workers. It requires a major shift to public transport, walking and cycling in order to reduce transport emissions, particularly for shorter trips. Overall the Council, along with the other West of England authorities, recognise the need for vehicle use to fall substantially and for the vehicles that remain to produce zero carbon emissions. A wide range of initiatives will play a part in delivering this.

However, going forward and particularly in the short term, there inevitably remains a role for the private car for some trips and for some users. In this situation the Council's aim, in line with national policy and industry changes, is to encourage the use of zero- or low-emission vehicles. Electric vehicles have potential to offer significant benefits and are an important part of the overall toolkit for improving air quality in B&NES and addressing the Climate Emergency.

It should be noted that this strategy was developed before the Covid-19 pandemic and its emerging effects. In particular, the changes in air quality and congestion identified in the immediate weeks after lockdown were unparalleled. Whilst the radical changes in travel behaviour, resulting from lockdown and social distancing, are not likely to be fully maintained in the longer-term, there will undoubtedly be a shift in how people choose to travel to work, along with changes in home-working and home-shopping behaviours. Electric vehicles play a vital role in improving air quality in B&NES, along with wider transport schemes, such as low traffic neighbourhoods.

There is a clear need for appropriate infrastructure to be provided across B&NES to support electric vehicle charging. Various high-level policies and approaches are being developed to address this, including an Ultra-Low Emission Vehicle Policy Statement which is currently being prepared jointly by the West of England Combined Authority and its constituent authorities (where B&NES are actively involved). It will be important that B&NES maintain a watching brief on these developments and update their own policy and approaches to ensure alignment.

In this context, this strategy document sets out the Council's current position and strategy on public on-street electric vehicle (EV) charging, recognising that this is a key area of demand and an area where there are likely to be short-term opportunities to deliver improvements. Delivery of on-street EV charging in B&NES is closely aligned with a number of other key policy initiatives being pursued by the Council to tackle the Climate Emergency. In particular, the implementation of low traffic neighbourhoods offer an opportunity for fresh thinking on how road space in residential neighbourhoods is used and is likely to bring new opportunities to deliver on-street EV charging.

This document focuses predominantly on the issues around provision of on-street EV parking in residential areas, recognising that making provision for charging in these areas where the proportion of homes with off-street parking provision is low (as is typical across Bath and other parts of the B&NES area) is a particular challenge.

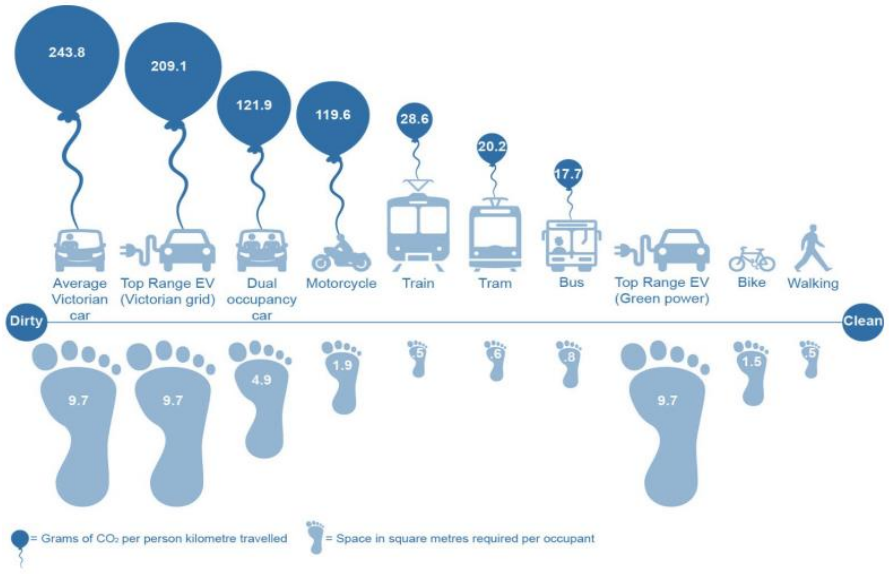
1.2 The move to electric vehicles

Electric vehicles produce less carbon emissions per kilometre than petrol/diesel vehicles, with less than 75g of carbon dioxide (CO_2) from the tailpipe for every kilometre travelled[1]. Electric vehicles also do not produce any NO_x. However, they do contribute to Particulate Matter (PM) emissions through brake and tyre wear.

Figure 1.1 produced by the Institute for Sensible Transport[2], highlights how modern EV vehicles, along with cycling and walking, have the lowest CO_2 emission per kilometre compared with other modes of transport. As such, a shift to modern EV cars as well as walking and cycling is beneficial for reducing local carbon emissions.

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/830795/vehicle-licensing-statistics-april-to-june-2019.pdf
[2] https://sensibletransport.org.au/

Figure 1.1. Carbon footprint and space required (source: Institute for Sensible Transport)



Currently fewer than 1% of vehicles travelling through Bath city centre are electric. A step change is required to support the Climate Emergency and to achieve the Council's target of becoming carbon neutral by 2030. A range of factors are expected to drive increased electric vehicle uptake in coming years, including:

- Increasing awareness of the Climate Emergency, declared in B&NES in 2019. The increased attention of the Climate Emergency at a national level is also likely to increase awareness of the environmental impacts of road travel and influence consumer choices. The B&NES Climate Emergency Progress Report sets out specific aspirations for increasing electric vehicle use so that the percentage of vehicle kms by vehicle type shifts to 76% pure battery EV, 14% petrol-hybrid EV and 10% petrol/diesel by 2030.
- Regulatory changes including the recent decision by UK Government to ban the production of new petrol, diesel and hybrid vehicles (which do not require plug-in charging) in the UK from 2035.
- Advancing technology is continually increasing the range, performance and accessibility of electric vehicles. This includes advances in charging technologies. Almost all major car manufacturers now make at least one electric car and the latest technology can now offer a vehicle range of over 200 miles, making electric vehicles a more attractive proposition to vehicle owners.
- Introduction of Clean Air Zones (CAZ), Ultra-Low (ULEZ) and Low Emission Zones (LEZ) which will charge non-compliant vehicles. Whilst the implementation of a Class C CAZ in Bath will not charge drivers of private cars, the introduction of Bath's CAZ (which will charge vans and HGVs) and ongoing development of similar initiatives in other towns and cities, is expected to increase awareness and encourage a shift to electric vehicles.
- Increasing provision of public charge points across the region. For example, in the West of England the 'revive' project is delivering four rapid charging hubs and 120 new charge point connections through the Go Ultra Low West project.

Increasing the availability of on-street EV charging infrastructure within B&NES is required to support an increase in uptake of electric vehicles and reduce the number of polluting vehicles in the fleet mix.

1.3 The electric vehicle charging challenge

It can take several hours to refuel an electric vehicle, so charging takes place when the vehicle is parked. The advancement of charge point and battery technologies may significantly reduce these charging times in the future or reduce the need for charge points at all. Until that time, there is a need to increase provision of charge points to ensure electric vehicles are a viable transport alternative for residents to use now.

To ensure that people have appropriate access to electric vehicle charging networks, it is likely that provision will be required across a range of settings, to include:

- public car parks and Park & Ride sites;
- at workplaces;
- private provision, for example at peoples' homes (off-street, i.e. on driveways or in garages); and
- public provision within a reasonable distance of residential areas (offering the best opportunity for overnight charging in many cases).

Provision of charging points in car parks and at workplaces is increasing. Several locations exist within B&NES (see section 3 for further detail) and are proving successful.

Nationally, provision of private charging points in residential areas is becoming more common as a result of government grants available to householders to subsidise the installation of charging for private use in garages or on driveways. However, many residents across B&NES do not have access to suitable off-street space that can be used in this way. Therefore, in order to provide appropriate access to electric vehicle charging infrastructure there is a need to provide public on-street charging facilities.

TfL research[3] shows that proximity to charging points is a key concern for public electric vehicle charge point users. Between 73-93% of users are likely to use a public charge point if it is within a five to ten-minute walk from their destination. This suggests that residents are much more likely to think about using EVs if there are charging points close to where they live and emphasises the importance of on-street provision within residential areas.

In increasing the provision for EV charging there are also additional over-arching potential issues and constraints which relate to the demand for electricity and the pressure that this places on the local electricity network. Ensuring that sufficient power can be provided is a key issue.

Provision of publicly available on-street electric vehicle charging facilities is subject to number of other challenges, including:

- availability of appropriate technology;
- method and availability of connection to electricity supply;
- management of system (payments, regulation of parking bays etc.); and
- consideration of visual and related impacts.

Currently there are no on-street EV charging facilities within B&NES. This document sets out these issues and looks at how B&NES can tackle them moving forward.

[3] http://content.tfl.gov.uk/understanding--electric-vehicles-research-findings.pdf

1.4 The vision

In developing a position statement and strategy for on-street EV charging, it is important to consider the policy context, along with the overarching B&NES vision for the future. The draft vision below looks to reflect the wider aims of local planning and transport policy as well as the key priorities for B&NES in addressing the Climate Emergency.

In tandem within other policy approaches which aim to reduce the use of vehicles and promote active modes and public transport, B&NES will encourage and facilitate a switch to low-emission vehicles as part of the overall package of measures to help reduce transport-related emissions.

As a key part of this B&NES, recognising that for many residents' access to on-street electric vehicle charging is critical, will work towards the provision of a network of public on-street charging points across the authority by 2030, assuming technology and demand matches this need.

1.5 Strategy aims

In order to realise the Vision, the following draft aims are proposed in respect of on-street vehicle charging:

- Deliver an on-street electric vehicle charging network that meets the demands of B&NES residents, businesses and visitors in the context of wider transport aims which first aim to reduce vehicle use and promote public transport and active modes.
- Take a pro-active approach to provision of electric vehicle parking, such that charging infrastructure need not be a constraint to owning an electric vehicle for residents of B&NES.
- Ensure that appropriate provision is in place electric vehicle charging in neighbourhoods and residents parking areas across B&NES by 2030 in line with increasing demand.
- Ensure that on-street EV charging sites are designed to take into consideration all road users and in particular to ensure that the location of the charge point does not take valuable pedestrian space and takes steps to reduce street clutter where possible.
- Ensure provision of electric vehicle charging facilities on-street is guided by an overarching strategy which includes a detailed plan for appropriate energy supply and ensures a co-ordinated approach to the provision of infrastructure and supporting systems (for example, payment and enforcement).
- Ensure that the design of electric vehicle charging points responds to local circumstances and in particular is in keeping with the World Heritage Site and Conservation Area status of key areas of B&NES.

1.6 Purpose of this document

This report outlines the strategy and policies for taking forward on-street EV charging in B&NES. Whilst Bath is the predominant focus of this strategy, the policies will be applicable throughout the B&NES authority area. Therefore, where relevant, consideration has been given to Bath, Keynsham, Midsomer Norton-Radstock and the wider rural area/villages.

The structure of this strategy document includes:

- Section 2 – A review of alignment with policy
- Section 3 – Details of current provision for electric vehicle charging across B&NES
- Section 4 – Estimate of likely future demand for on-street electric vehicle charging
- Section 5 – Issues and options for on-street electric vehicle charging
- Section 6 – Approach to implementing on-street electric vehicle charging.

Appendix A provides a detailed policy review and **Appendix B** provides case study information.

2. Policy context

The provision of infrastructure to support electric vehicle charging directly reflects policy priorities at both the national and local level. Table 2-1 highlights the main policy linkages, showing how on-street electric vehicle charging would help to support the achievement of aims and ambitions set out in existing adopted policy covering, in particular delivering against West of England and B&NES priorities.

Generally, adopted policies highlight the need to focus on moving away from prioritising the private vehicle to benefit public health through improvements to local air quality.

Importantly the table highlights the importance that national, regional and local policies place on reducing transport emissions. For unavoidable trips increased electric vehicle charging provision would support the switch from highly polluting diesel and petrol alternatives.

Locally, the West of England Authorities are jointly working on a policy statement on ultra-low and low-emission vehicles. This statement, currently in draft, recognises the importance of providing appropriate electric vehicle charging infrastructure, including on-street provision.

Appendix A provides a full review of policy context relevant to electric vehicle and public on-street charging in particular.

Table 2-1: National, regional and local policy supporting on-street EV charging

Existing policy	How on-street EV charging will help achieve these policy aims
National Policies	
The National Planning Policy Framework	The NPPF is a land-use planning policy which promotes sustainable development of housing and transport infrastructure. Parking and new development guidance in the policy establishes that adequate provision of spaces for charging plug-in and ultra-low emission vehicles should be considered, therefore supporting appropriate and accessible provision of on-street EV charging points.
Clean Air Strategy 2019	The national Clean Air Strategy encourages the creation of Clean Air Zones to reduce air pollution in local areas. Through this, a CAZ is being introduced in Bath which will prompt vehicle upgrade and behaviour change. This policy aims to improve air quality and reduce vehicle emissions which will be supported through increasing on-street EV charging infrastructure across B&NES.
The Road to Zero	The Road to Zero supports a reduction in greenhouse gases, specifically through reducing vehicle emissions and prompting cleaner vehicles on UK roads. It aims to increase the development of zero emission vehicles in the UK through restricting the sales of conventional petrol and diesel cars in line with national legislation. This will be supported and facilitated in B&NES by the development of an on -street EV charging network.
The Clean Growth Strategy	The Clean Growth Strategy sets out the government approach for decarbonising the UK economy through the 2020s. One of the policies for reducing the transport emissions is to develop the electric vehicle charging network which will be supported by the development of on-street EV charging across B&NES.
Automated and Electric Vehicles Act	The Act is intended to support the delivery of electric vehicles through powers to allow the Government to regulate public electric charging which standardises the compatibility, payment and reliability of charging points.
Decarbonising Transport, Setting the Challenge	The Decarbonising Transport strategy sets out aims to deliver a net zero transport system which include accelerating the decarbonisation of road transport and support the transition to zero emission road vehicles. Through the delivery of on-street EV infrastructure in B&NES, this can help support the delivery of the Decarbonising Transport report.
Regional/Local Policies	
West of England Joint Local Transport Plan 2020	The JTLP4 sets out the transport aspirations for the West of England up to 2036 including aims to support the development and uptake of ULEVs. The implementation of an on-street EV strategy in B&NES is key to enable and drive the shift to electric vehicles, therefore helping to deliver the reduce carbon emissions and improve air quality. It should be noted that the B&NES on-street EV strategy should consider the improvements outlined within the JTLP4 and be delivered alongside these.
West of England ULEV Strategy (emerging and currently draft)	The West of England authorities are working on a draft ULEV strategy which will encourage and support a shift to carbon neutral transport across the region. It will identify a range of actions and objectives, including increasing electric charging points. Provision of infrastructure to support electric vehicles is recognised as critical. By setting out an

Existing policy	How on-street EV charging will help achieve these policy aims
	approach to provision of on-street charging facilities within B&NES this document aligns fully with the West of England's emerging regional policy.
Bath and North East Somerset Draft Corporate Strategy 2020 -2024	The Corporate Strategy sets out the overarching strategic plan for the Council which including a reduction in transport emissions. The Strategy details the key commitment to introduce on-street EV charging working with schools and local communities which this policy directly supports.
The Getting Around Bath Transport Strategy	The Getting Around Bath Transport Strategy outlines the aims and objectives for transport within Bath. It outlines the support of residents during consultation for electric vehicle facilities within the city centre. This policy will support the consultation comments and policies within the Strategy for reductions in carbon emissions.
Existing B&NES local plan (Core Strategy and Placemaking Plan)	The local plan details the vision for development across B&NES. The Core Strategy outlines the objectives which includes a sustainable, low carbon future which will be supported through the development of on-street EV charging.
Emerging B&NES Local Plan	The Emerging Local Plan sets out the future aspirations for development across B&NES. The Plan is supportive of reducing carbon emissions and providing electric vehicle infrastructure. It supports electric vehicle infrastructure through new developments.
The City of Bath World Heritage Site Management Plan 2016-2022	The World Heritage Site Management Plan identifies traffic as a major issue for the World Heritage Site and aims to promote less car use and improve air quality. The implementation of on-street EV charging points should consider the distinct nature of the World Heritage Site to ensure appropriate installation for the streetscape.
Bath City-wide Character Appraisal	The document outlines the 22 character areas recognizing the World Heritage Site, Hot Springs, Conservation Areas, Green Belt, Areas of Outstanding Natural Beauty, Listed Buildings, Ancient Monuments and historic landscapes. Consideration of these areas is required in the implementation of on-street EV charging infrastructure to establish suitable locations, materials and design.
Balancing Your Needs: A parking strategy for Bath and North East Somerset	The Parking Strategy supports electric vehicle provision with support for an increase in the number of electric vehicle charging points on-street and within car parks. This strategy will build on the policy commitment through delivering a framework for on-street EV charging.
B&NES Climate Emergency Progress Report	The Climate Emergency report details B&NES' commitment to carbon neutrality by 2030 which includes aims to increase electric vehicle uptake across B&NES. The EV strategy will help to enable the shift to electric vehicles as set out in the on-road transport targets.
Bath Clean Air Plan	The Clean Air Plan is anticipated to increase the uptake of electric vehicles within Bath which has informed the development of the EV on-street charging policy – particularly future fleet composition assumptions and consideration of infrastructure provision. An EV strategy would help to enable the shift to electric vehicles as set out in the on-road transport targets.
Air Quality Action Plans for Keynsham and Saltford	It is estimated that electric vehicle ownership will increase across Keynsham and Saltford as a result of the plan. The electric vehicle on-street charging policies and consideration of infrastructure provision as part of this Strategy document will take account of these air quality action plans.

It should be noted that OLEV have recently revised guidance on funding for on-street EV charging available to local authorities. This includes the On-Street Residential Grant Scheme (May 2020[4]), which enables local authorities to apply to access up to 75% of the cost of on-street EV charge point infrastructure. Further information on the grant scheme is summarised in **Appendix A**.

[4] https://www.gov.uk/government/publications/grants-for-local-authorities-to-provide-residential-on-street-chargepoints/grants-to-provide-residential-on-street-chargepoints-for-plug-in-electric-vehicles-guidance-for-local-authorities

3. Current provision for electric vehicle charging in B&NES

This section provides an overview of the current provision of electric vehicle charging infrastructure across B&NES. Overall this shows that whilst provision is increasing, the availability of charging facilities within residential areas is limited and currently there are no public on-street facilities.

3.1 Bath

Currently, there is no provision of on-street EV charging in Bath. There are 16 off-street electric vehicle charging locations with a total of 77 charging points. Most of these are not close to the central area of the city and only 43, at 10 locations across Bath, are available for public use.

These electric vehicle charging locations are shown in Table 3-1. Data presented in this section has been obtained from the website www.zap-map.com[5], in December 2019. No data on the utilisation of charging points is available.

Table 3-1: Existing electric vehicle charging points

Map ID	Location	Public / Private	Number and type
1	Charlotte Street Car Park	Public	5 x Type 2, Mid accelerated 7KW
2	Southgate Bath Shopping Centre	Public	12 x Type 2, Mid accelerated 7KW
3	The Royal Crescent Hotel & Spa, 16 Royal Crescent	Private	2 x Type 2, Accelerated 22KW
4	Apex City of Bath Hotel	Private	4 x Type 2, Mid accelerated 7KW
5	Bloomfield House, 146 Bloomfield Road	Public	1 x Type 2, Mid accelerated 7KW 1 x British plug, Standard 3KW
6	University of Bath, east car park	Private	8 x Type 2, Mid accelerated 7KW
7	University of Bath, west car park	Private	6 x Type 2, Mid accelerated 7KW
8	Bailbrook House Hotel, Eveleigh Avenue	Public	1 x Type 2, Fast 43KW 1 x Combo CCS EU, Fast 50KW 1 x CHADEMO, Fast 50KW
9	Stay In Bath – The Courtyard, 246 High Street	Public	1 x Type 2, Mid accelerated 7KW 2 x Tesla, Accelerated 22KW
10	Odd Down Park & Ride, Odd Down	Public	4 x Type 2, Mid accelerated 7KW
11	Sirona Care and Health, St. Martin's Hospital	Private	2 x Type 2, Mid accelerated 7KW
12	Sainsburys Odd Down, 152 Frome Road	Public	2 x Type 2, Standard 3KW
13	Newbridge Park & Ride, Upper Bristol Road	Public	4 x Type 2, Mid accelerated 7KW
14	Lansdown Park & Ride, Lansdown Road	Public	4 x Type 2, Mid accelerated 7KW
15	Bath Spa University	Private	12 x Type 2, Mid accelerated 7KW
16	Bath Spa University (Academic Building)	Public	4 x Type 2, Mid accelerated 7KW

There are two publicly available charging locations within Bath city centre, at the Charlotte Street and Southgate Shopping Centre car parks. Between them, they provide 17 charging points. There are also private charging points within the centre of the city at the Royal Crescent and Apex City of Bath hotels.

The remaining twelve charging point locations are further away from the city centre. However, three of them are in car parks of Park & Ride sites in Odd Down, Newbridge and Lansdown (locations 10, 13 and 14 respectively), allowing drivers of electric vehicles from further afield to catch a bus to the city centre and leave their car parked and charging. Figure 3-1 shows each of these charging points, in relation to the residential parking zones.

[5] As hosted through part of Go Ultra Low West project.

Figure 3-1: Electric vehicle charging points

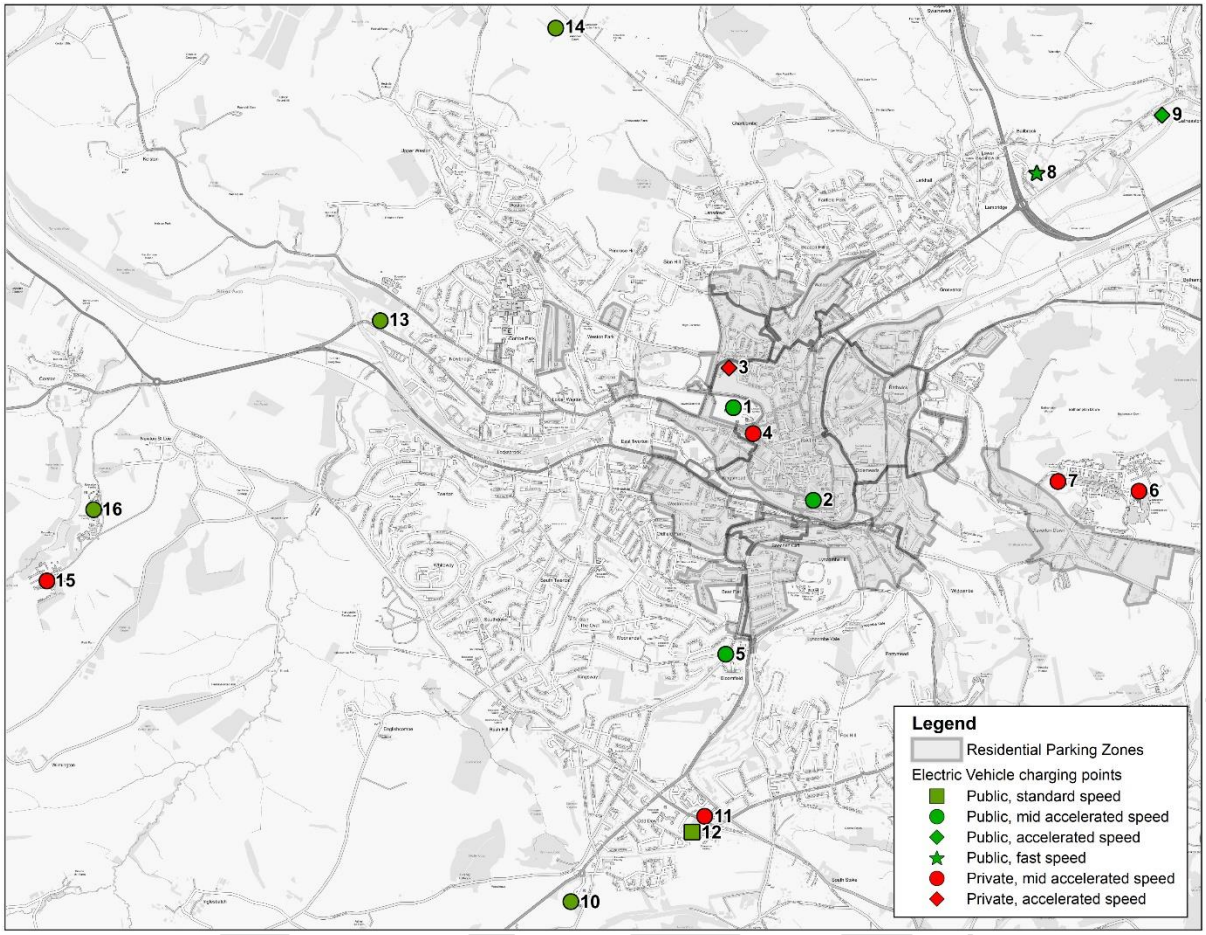


Figure 3-1 demonstrates that there are few options for EV charging in B&NES, with no current on-street EV charging points for use in residential areas. There is a need for increased provision of electric vehicle charging and parking within residential areas.

3.2 Electric vehicle charging across the wider B&NES area

Across the wider B&NES area the level of provision is similar and is set out below. Although public charging locations, those designated with an asterisk (*) require membership, double asterisk (**) require notice.

Keynsham

- Tesco superstore, Keynsham – four public charging points (Type 2, Mid accelerated - over 2kW)
- Fox and Hounds car park, Keynsham – two public charging points (Type 2, Mid accelerated - over 2kW)

Midsomer Norton – Radstock

- Best Western Centurion Hotel - two public charging points (BS1363 3 pin amp, Mid accelerated - over 2kW)
- Midsomer Norton Sports Centre - two public charging points* (Type 2, Mid accelerated - over 2kW)
- Ston Easton Park Hotel, Radstock – two public charging points* (Tesla Model S/X, Mid accelerated - over 2kW)

Rural areas/villages

- Babington House, Frome - one public charging point** (Tesla Model S/X, Mid accelerated - over 2kW)
- Chew Magna – one public charging point (CHAdeMO, High accelerated - over 40kW)
- The Old Parsonage, Farrington Gurney – one public charging point* (Tesla Model S/X, Mid accelerated - over 2kW)

- Temple Inn Lane, Temple Cloud, Clutton – two public charging points (Type 2, Mid accelerated - over 2kW).
- Upper Vobster Farm, Upper Voster - two public charging points* (Tesla Model S/X, Mid accelerated - over 2kW)

It is noted that possible additional future public off-street charging locations within B&NES have been identified as part of the Go Ultra Low West Project[6], with approximately 15 sites under investigation.

[6] http://bcc.maps.arcgis.com/apps/webappviewer/index.html?id=c65b68b9282e43e994130b5f591c685e

4. Future demand for on-street electric vehicle charging in B&NES

Overall B&NES Council, along with the other West of England authorities, recognises the need for vehicle use to fall substantially in future. However, the private car will remain necessary for some trips and it is important that residents have good access to key facilities. Where vehicles are required, the Council aims to encourage a step change towards vehicles that produce zero carbon emissions. This will mean that an increasing number of residents will require easy access to EV charging.

4.1 Recent trends

In 2019 Q2, 14,811 ULEVs were registered for the first time in the UK, which is a 30% increase on 2017 Q2[7]. More locally, vehicle licensing statistics published by the Department for Transport (DfT) state that an average (across the four quarters) of 419 ultra-low emission vehicles (ULEV), fully electric or plug-in hybrid vehicles were registered in B&NES in 2018, which represents 0.37% of total vehicle registrations. However, it is important to note that this is an increase from an average of 40 registrations in 2014, which shows a considerable uptake in five years. Therefore, as ULEVs become more mainstream within Bath, more on-street EV charging infrastructure will be required.

4.2 Future electric vehicle demand in residential areas

A range of analysis has been undertaken to understand the potential future demand for on-street EV spaces that may be required in each of the existing residents parking zones in Bath, based on different available data sources and predictions. Indications of the uptake of electric vehicles is used here as a proxy for demand for parking in residential areas (although it is recognised that the situation is complex and that actual demand for EV charging on-street is likely to relate to a number of other factors, such as the growth in provision at workplaces). Estimates of potential demand differs depending on the source data used. In summary the analysis for this strategy paper has considered:

- The TAG databook May 2019. This provides national estimates on the proportion of electric vehicles in the vehicle fleet mix in the future. This data suggests that 14% of car vehicle km will be by electric by 2030. The figure is 5.86% for LGVs and the databook assumes that OGV/PSV will remain 100% diesel.
- The Climate Emergency aspirations, as stated by in the B&NES Climate Emergency Progress Report, aim to see the number of vehicle-kms travelled in the city comprise of 76% fully electric and 14% by petrol-hybrid vehicles by 2030.

Utilising the TAG data implies that 14% vehicles could require access to electric charging points by 2030. Overnight charging is likely to be most practical for many electric vehicle users, therefore this assumes a potential need to provide up to 14 % of all on-street residential parking as electric vehicle parking by 2030. Actual demand could vary, as noted above, depending on the growth of other options for EV charging (which may mean that more people could charge other than at their home). Applying this percentage to the parking provision in the existing residents parking zones (RPZs) indicates there could be circa. 900 electric vehicles owned by Bath residents parking on-street by 2030. This figure is not intended to inform targets but provided as a quantified example.

As noted in section 5 there are a range of ways in which electric vehicle users could choose to charge their vehicle (meaning that not all demand would need to be met on-street), but these figures provide an overall indication of the scale of infrastructure that could be required to meet demand. To support this aspiration, B&NES Council will need to consider the feasibility of on-street EV charging provision alongside the likely advancements in EV charging technology and wider adoption of road traffic reduction measures.

The Climate Emergency aspirations would imply an even higher demand for potential on-street electric vehicle charging infrastructure. Given the various constraints (see section 5) provision to this extent on-street in residential areas is unlikely to be feasible.

[7] https://www.gov.uk/government/statistical-data-sets/all-vehicles-veh01#ultra-low-emissions-vehicles

5. Issues and options for developing the on-street EV network

5.1 Options for EV provision

Demand for residents to charge electric vehicles could potentially be met in a number of ways via:

- public car parks, for example where residents live close to public car parks there is an opportunity for them to charge overnight, close to their home. This facility is already available in B&NES in some car parks;
- at workplaces, facilitating charging during the day;
- private provision, for example at people's homes/on driveways (note that within sensitive areas this may require appropriate consents); and
- on-street.

On-street EV charging is therefore not the only option available for increasing provision of EV charging within B&NES. However, for many residents the other options are unlikely to provide satisfactory levels of convenience.

This is particularly the case in areas of Bath, for example, where a high proportion of housing is terraced or multiple occupancy without access to off-street parking. Therefore provision of on-street facilities needs to be part of the overall package of EV charging infrastructure. The extent to which it is required, as discussed in section 4, may depend on the growth of provision in other areas and the extent to which, for example ability to charge in public car parks or workplaces may negate a need to charge at home.

Stronger policies and targets for the provision of public EV charging is expected through emerging policies, including the West of England policy statement on ULEVs.

5.2 On-street electric vehicle charging infrastructure options

There are a number of on-street charging options currently available, the considerations relevant to each option are summarised in Table 5-1. Technology is advancing rapidly and it is envisaged that other options will be brought to market in the near future; therefore it is important that B&NES continue to monitor potential solutions and explore new opportunities.

Table 5-1: Current electric vehicle charging options for on-street provision

Type of on street charging provision and enforcement	Considerations
Lamp post and low power charging points. (3-5kW) **TRO may be required to keep spaces free for use by electric vehicles only**	+ Removes need for additional street furniture. + Helps to keep costs of equipment etc. down. Less expensive than floor mounted units. + Able to piggyback onto existing power supply. - Limited charging capacity which means a full charge takes 7-8 hours, mostly only suitable for overnight charging only. - In some areas, potentially limits number of spaces that can be provided, depending on location and number of existing lampposts. - Existing lamp posts may not be located close to convenient parking spaces. - Dedicated spaces required in residential streets with no RPZ. - Existing lamp posts may not be located at the front of the pavement and require a cable trail. Trailing cables may present trip hazard across the footway and particularly to pedestrians. - Users need to buy a Smart Cable (costs £199) – may prevent wider adoption. - In areas with RPZ, to preserve preferential access for local people rather than all EV drivers, locally based EV permits may be required.

Type of on street charging provision and enforcement	Considerations
Floor mounted charging points **TRO may be required to keep spaces free for use by electric vehicles only** **7-22kW**	+ Charging takes 3-4 hours + Small size, well suited to on-street EV charging + Typically able to serve two EVs at a time - Require dedicated EV parking bays. This may add to parking pressure in area. - Need to enforce maximum stay for EV parking bays these charging points are assigned to ensure once a vehicle is charged it moves on to free up the space for the next EV user. - Simple payment system once registered. - Installation could be more expensive as is likely to require a new connection to the power supply - Require street space for installation – preference for location on-street, not on pavement - In areas with RPZ, to preserve preferential access for local people rather than all EV drivers, locally based EV permits may be required.
Rapid charging points **43- 50kW**	+ Charge a vehicle in less than 1 hour + Has various cables to enable use by different connector types. - Large size and only really suitable for off-street locations or would require a large amount of street space. - Require a new connection to the power supply. - Can require costly local electric grid upgrades. - Can only serve one vehicle at a time. - Only suit certain electric vehicle types.

Overall consideration of the information in the Table 5.1 suggests that lamppost-charging and bollards are typically the most suitable options for on-street provision. However, it is noted that each option has specific issues and that different options can work better in different local situations. In particular, the position of existing lamp columns (i.e. at the rear or front of the footway) is critical; with many in Bath positioned at the rear of the footway, which therefore raises safety concerns around trailing cables for plugging in. Other authorities are carrying out trials of different on-street technologies. The case study below highlights the Oxford experience, which includes an option involving cables running through pavement drainage channels considered for both on-street and household options. However, B&NES has noted that this has implementation and continued maintenance implications and is therefore not suitable for use locally.

Case Study: Oxford City Council – electric vehicle charging (for full details see Appendix B)

Oxford City Council trialled five different on-street EV charging technologies in 2018, including lamp post chargers, three types of bollard chargers and a home charger coupled with a channel (often utilising existing drainage channels) to allow the cable to be trailed across the footpath.
The criteria used to evaluate the performance of the charging technologies were:

- Ease of access
- Ease of use
- Installation footprint
- Robustness
- Data and billing
- Maintenance and repair
- Price
- Speed of charging
- Utilisation
- Adoption capacity
- Neighbour complaints
- Commercial sustainability

Each technology was scored against each criteria, with 1 being very poor / low and 5 being very good / high. The lamppost charger scored the best overall, followed by the home charger. The bollard style chargers scored lowest.

5.3 Challenges and issues for B&NES

Provision of on-street EV parking in dense residential areas, as is common in Bath and other B&NES towns, presents a number of possible challenges:

- One of the potential constraints to developing the EV charging network in B&NES, as in other authorities is the capacity of the local electricity grid. Depending on the types of on-street charge points installed, it is possible that upgrades would be required to grow the capacity of the local grid or to manage demand in a smart way (i.e. consideration of peak times).
- Limited road space/installation footprint required. Provision of space/infrastructure for charging should typically be within the highway, otherwise it potentially undermines facilities for pedestrians. Moving forwards B&NES will aim to ensure that all infrastructure should be installed within the highway where possible. In some circumstances the Council may consider the use of footways where the remaining footway after installation will exceed 2.5m.
- Potential impact on footway – as noted above, the need to physically 'plug in' has further knock on effects for the footway and raises safety issues in respect of trailing cables etc. Although use of drainage channels within the footway has been trialled in other areas to reduce the impact of trailing cables, B&NES will not consider these as an option in tandem with lamppost or household charging, therefore overall design will need to eliminate the risk of trailing cables using other means.
- Street furniture – depending on the provision, there may be the need for additional street furniture. In some areas this will require careful consideration, for example in the World Heritage Site or Conservation Areas.
- Ease of access – in terms of proximity to peoples' homes and availability of bays.
- Regulation and enforcement - there are a number of options available to regulate and enforce bays associated with on-street EV charging, each depends on the existing parking restrictions in an area:
    - A time-limited TRO could be used to place restriction on electric car charging spaces, particularly in areas where there is not an RPZ. The TRO would determine the use of the space - establishing that only electric cars charging could use it, the length of stay, the time before return and exceptions to this. As well determining the time period for which the restrictions are in use (i.e. 24 hours, 7 days a week, or restrictions could apply for set times and days.
    - Spaces could also be enforced via specific RPZ TRO regulations. Therefore, only residents with a permit for the RPZ, or visitors to residents in the zone with a visitor permit would be able to use the space. Outside of an RPZ, any vehicle would be able to use the space provided it fits with the TRO restrictions.
    - In some instances, a permitting review may be required to enable drivers with electric vehicle permits for an area only to use the charging point. This prevents non-EV vehicles parking in these spots and EVs that are not local to the area using the infrastructure, unless a visitor pass available.
- Robustness and maintenance – on-street EV charge points can require extensive maintenance over their lifetime. There may be issues in funding this maintenance. Infrastructure needs to be resilient to vandalism and be able to withstand minor collisions which may be more likely if located in the highway.
- Visual impact – Bath is a heritage city and on-street charge point options may have a negative visual impact. Charge points typically have a modern design and can be large in size, which might look out of place in particular areas of the city. Lamppost charge points can make use of existing infrastructure and may have less of a visual impact than other options.
- Houses in multiple occupation/AirBnB etc – these residences may present challenges in terms of determination of access to charge points. However, visitor permitting or a set number of permits per household (similar to RPZ policies) may mitigate some of these issues.
- Ease of use and payment mechanisms – to include how intuitive the system is for use. Various payment and access options are currently available ranging from open access, plug in and go systems through to restricted access points requiring tag access.
- Commercial sustainability – to ensure systems are, where possible, cost neutral to the Council.

6. Approach for the implementation of on-street electric vehicle charging in B&NES

This section sets out steps that B&NES should take to move forward on the implementation of on-street charging for electric vehicles. Section 6.2 considers the considerations to take forward electric vehicle charging in specific areas, for example as opportunities arise linked to the wider implementation of strategies such as low traffic neighbourhoods or in response to requests. Ahead of this, section 6.1 considers the wider issues that the Council should consider in order to further develop an authority wide approach and to prioritise implementation.

6.1 Development of a framework for on-street EV charging within B&NES

In order to ensure a holistic, joined-up and deliverable overall approach to the implementation of electric vehicle charging, B&NES will need to develop a framework to identify how best to roll out enhanced provision across the authority. This will need to balance:

- The need to proactively encourage a switch to low emission vehicles;
- The need to cater for increasing demand over time; and
- The need to address practical constraints.

The roll out of low traffic neighbourhoods across the authority offers a mechanism through which EV provision can be considered for each individual area in turn, within a wider context of local improvements. However, it is also important to consider the over-arching, pre-requisite requirements necessary to support this roll out. Key issues for consideration include:

- The long-term capacity of the local electricity grid to support an increase in on-street EV charging (and alongside increasing provision of other forms of EV infrastructure in line with the wider strategy for the region).
- Identification of the most appropriate infrastructure and technology for on-street EV charging in B&NES.
- Advancements in technology and the need to stay abreast of a changing market.
- Funding.
- Priority areas for implementation, as seen in the context of demand, or opportunities to implement changes alongside other works.

Action Point: B&NES will identify and confirm the requirements necessary to support the roll out of on-street EV charging across residential areas. Requests can be submitted by local councillors using the proforma template in **Appendix C**, this will enable B&NES Officers to gauge level of interest. This will help to ensure that the provision of EV charging facilities on-street within low traffic neighbourhoods, or as other opportunities arise, is undertaken within the framework of a wider strategy.

6.1.1 Capacity of the network

As the number of electric vehicles increases, smart charging infrastructure and grid balancing technology will become increasingly important. Peak electricity demand is typically in the evening, and research shows that most people currently charge their vehicles at this time too. Home heating is also turning to electric, with gas heating for new houses due to be banned by 2025. This will further increase the load on the already strained electricity grid at peak times.

To manage this demand and minimise the need for new power generation and costly electricity grid upgrades, smart charging will be increasingly important. Smart charging can shift charging times to the middle of the night or other off-peak times to minimise the load on the grid. Other smart charging approaches allow the load on the grid to be levelled meaning that multiple vehicles charging in one location have power split between them to help manage the load on the network.

Emerging technology such as Vehicle-to-Grid (V2G), where electric vehicle batteries contribute power to the grid at peak times, could also play an important role, along with smart grids and battery storage.

In 2019 Government consulted on proposals for regulations to ensure that electric vehicle charge points in the UK have smart charging functionality included. The results of the consultation are currently being analysed by Government.

It will be important to establish the capacity of the local network, identify any constraints and consider approaches for managing impact in order that the roll out of on-street EV charging infrastructure, alongside wider initiatives to provide other forms of EV charging is sustainable.

As part of an overarching framework, consideration should also be given to the source of supplied energy. The existing 'revive' network is supplied using 100% renewable energy. Ensuring a high percentage of renewable energy should similarly be a high priority for B&NES.

Action Point: B&NES will establish the local factors affecting grid capacity and constraints and continue to support smart charging research and innovation, working with Government and other partners and identify potential funding opportunities and projects.

6.1.2 Infrastructure, technology and method of charging

As noted in section 5, various options for provision on on-street EV charging are available, each with their own specific advantages and disadvantages. Currently B&NES does not have a preferred solution for on-street charging. In order for the roll out of EV on-street charging to be practical and cost effective it will be important for B&NES to continue to liaise with manufacturers to establish the best approach for the local area. This may involve the need to test various approaches (including charging equipment, method of charging and subscription services) and monitor.

Across the wider region, the WoE authorities have taken a leading role in developing the 'revive' public charging network in the region. Lessons from this project will be used to determine a preferred approach for B&NES.

Tariffs and payment mechanisms will be critical considerations. In the context of on-street EV charging provision, an important consideration is that the costs of residential on-street charging are likely to be higher than residents with off-street parking, due to higher electricity prices and maintenance costs. This will be a key consideration and will require development of ways to tackle this across B&NES to avoid discrimination against lower income households. Overall, charging approaches will need to be in line with the Automated and Electric Vehicles Act 2018, which aims to ensure that public charging points are compatible with all vehicles, standardising the payment at charging points and setting standards for reliability.

Currently off-street charging points in B&NES are provided by a range of different providers. The framework should consider whether future provision should be via a preferred supplier, or whether a range can/should be maintained.

An overall method of managing the whole on-street provision should also be considered and specifically whether charge points should be Council-owned and/or run by another organisation. As part of establishing a preferred solution/supplier(s) it will be important to give due consideration to design issues such that the infrastructure/systems adopted are suitable for use within the World Heritage Site or local conservation areas.

Action Point: B&NES will explore options for equipment and services with a view to establishing a preferred supplier(s) and methods for charging.

6.1.3 Changing technology and trends

It will be important for the Council to keep abreast of emerging technologies and charging options as they develop to ensure infrastructure remains fit for purpose and meets the needs and demands of users. Important considerations include for example

- Battery size – the size of batteries is expected to improve significantly in future, which will affect demand for charging.
- Induction charging – this is being developed and would remove the need for a vehicle to be physically plugged in to a charge. Instead working on the basis of a transmission of energy from a charging pad to a vehicle parked above.

- Ability to charge other than at home – as opportunities to charge vehicles in other locations increases, demand for on-street charging at home may alter (albeit it is recognised that for many users access to overnight charging at home is critical).

In addition, it is essential to monitor future trends and demand. Overall vehicle use needs to fall substantially in order to address the Climate Emergency. Mode shift and changing travel pattern over time will have a direct impact on demand for EV charging.

Action Point: B&NES will continue to keep abreast of emerging technologies to ensure that the most appropriate solutions to on street electric vehicle charging are adopted across the authority.

6.1.4 Funding

As part of an overarching strategy a key consideration will be to establish how on-street charging facilities can be funded and to establish the likely provision that can be made within available funding. In this way, implementation can be programmed and prioritised. Overall, the provision of on-street charging electric vehicle infrastructure should remain cost neutral wherever possible so as not become a financial burden on the council.

Action Point: B&NES will continue to identify funding opportunities to deliver on-street vehicle charging. Implementation of on street facilities will depend on, and be prioritised according to, available funding.

6.1.5 Priority areas for implementation

As part of the overarching framework it will be important for the Council to set out how it intends to roll out on-street electric vehicle provision and how this would be prioritised. Priorities within the framework could reflect:

- Opportunities to deliver on street electric vehicle charging as part of an integrated and wider intervention in a particular area. It is envisaged that priority will be given to EV provision alongside other works or wider projects. In particular low traffic neighbourhoods offer a key opportunity to provide EV infrastructure alongside wider improvements and public realm enhancements.
- Extent of demand/EV ownership in particular areas – for example as demonstrated through a request for bays or known increase in EV ownership.
- Availability of alternative EV charging options – for example, on-street provision may be ranked higher priority in those areas where other options, for example use of public car parks etc is not feasible.
- Opportunities for provision to be funded via alternative means, for example if specific local funding is available.
- Consideration of future provision as part of a process of reviewing or implementing parking restrictions, residents parking zones or other traffic regulation orders (TROs).

Action Point: B&NES will consider the roll out of on-street EV charging based on a prioritisation framework and will routinely monitor levels of EV ownership across B&NES.

6.2 Process for implementing EV provision

The following process highlights how EV on-street provision could be taken forward in the short term whilst the wider WoE ULEV strategy is developed and B&NES framework for on-street EV charging evolves. This process seeks to prioritise implementation and ensure that installation of on-street infrastructure responds to local circumstances and contexts. It outlines the broad stages for consideration and implementation of on-street EV charging. It also provides guidance on considerations for prioritisation and proportionality, with the timeframe for this process varying on a location-by-location basis. Table 6-1 provides additional details for consideration.

It should be noted that a request for EV on-street charging facilities may not always result in provision being delivered and that it will be important for implementation to be prioritised to make best use of available funding.

In the short-term, implementation could be taken forward in the form of trials, which would help to determine a firmer longer-term approach.

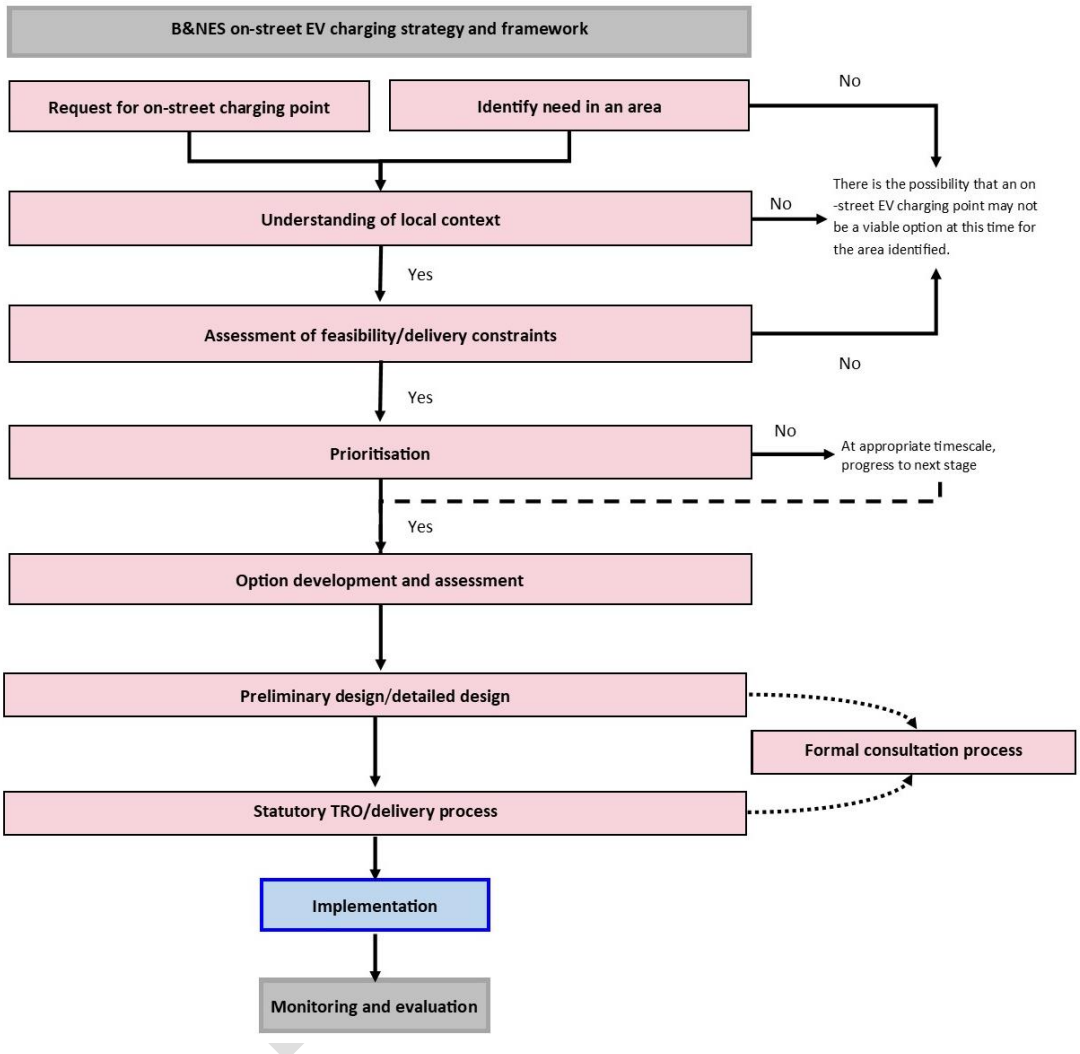


Figure 6-1: Summary process for consideration and implementation of on-street EV charging infrastructure

Table 6-1: Process for developing of on-street EV charging options and proposals

Stage of process		
IDENTIFY NEED	Identification of need for increased EV charging in an area to facilitate implementation of transport strategy or as part of low traffic neighbourhood.	Request for on-street EV charging in an area received via proforma template. This could be in response to community engagement or individual requests.
	*Requires an understanding of supply and demand issues.*	
UNDERSTANDING OF LOCAL CONTEXT	At this initial stage, there are a number of considerations which include: ▪ understanding of current demand and availability of EV charging supply within the area; ▪ additional requests in an area and links to wider TRO review timescales; ▪ strength of local support; and ▪ consideration of future demand/uptake and information on intended use (i.e. times of day).	
	*Could on-street EV charging be feasible?*	
ASSESS FEASIBILITY/DELIVERY CONSTRAINTS	Undertake desktop review using existing information, to include: ▪ proximity to public off-street EV charging facilities; ▪ parking availability, any restrictions (including RPZ, TROs) and usage, including proportion of dwellings with off-street parking; ▪ availability of connections to electricity supply, e.g. via existing lampposts; ▪ heritage and conservation considerations; ▪ pavement and road widths; ▪ landscape geography; ▪ street infrastructure (e.g. lamppost frequency); ▪ information on local fleet mix; and ▪ consideration of opportunities to deliver as part of wider intervention – e.g. low traffic neighbourhoods, existing TRO reviews or as part of wider transport strategy considerations. The desktop review may include a site walk and initial fact-finding engagement with the local community, through suitable means such as residents' associations or parish councils. This review will provide an initial determination of the appropriateness of on-street EV charging infrastructure. Further data collection (such as parking surveys) and feasibility considerations may be required.	
	*If on-street charging infrastructure is feasible, locations will be assessed to enable prioritisation.*	
PRIORITISATION	Following feasibility considerations and further data collection, locations will be assessed and considered at both a local and area-wide scale, identifying opportunities for delivery as part of wider interventions and considering available funding. Section 6.1.4 considers what priorities could reflect.	
	*If on-street charging infrastructure is prioritised and feasible, what technology options are most appropriate for this location?*	

Stage of process	
OPTION DEVELOPMENT AND ASSESSMENT	Additional consideration and assessment of the following may be included at this stage to develop location-specific, viable on-street charging options: ▪ existing width of pavement, at specific locations; ▪ location of street infrastructure; ▪ parking availability and use within existing RPZs or in the vicinity of the area; ▪ likelihood and impact of increased parking pressure; ▪ likelihood of need for controls/enforcement, e.g. a TRO or parking controls; ▪ likelihood of local support of the principle. This information will determine the on-street EV charging options most suited to this area (lamppost chargers or bollard style chargers). Assessment of factors that could impact the implementation of on-street charging infrastructure in this area. ▪ Funding: is there funding available, if yes how much? ▪ Permits: would options require residential electric vehicle permits to prevent use from non-local users? ▪ Would options require TROs? ▪ What would be likely timescales for implementation? Following development of on-street EV charging options, these will be considered in terms of the initial prioritisation, the proposed scheme(s) including high-level consideration of costs and timeframes associated with any solution.
	*Take forward preferred option/solution*
PRELIMINARY DESIGN & DETAILED DESIGN	This would could include consideration of full implications of design issues/trade-offs, timescales for intervention and cost. Designs should be in accordance with existing B&NES street design guidance and should consider, as appropriate, low traffic neighbourhoods proposals and existing TROs/RPZs. Risk and equality implications also need to be considered at this time. Community engagement, prior to formal consultation, should also be considered as part of the development of preliminary and detailed design.
STATUTORY TRO/ DELIVERY PROCESS	Depending on the final scheme designs, the relevant statutory TRO formal consultation and delivery processes should be followed for implementation.
IMPLEMENTATION	To include ongoing communication with the community during the construction phase via newsletters, website, information boards etc. as appropriate.
'AFTER' MONITORING	Appropriate 'after' monitoring should be undertaken to properly evaluate the impact of the scheme. This should include, as appropriate: ▪ quantitative data on usage, failure and maintenance; and ▪ qualitative surveys of community and business opinion.

7. Summary and way forward

The provision of on-street electric vehicle charging points across B&NES will be an important part of the overall package of measures required to encourage use of zero- and low-emission vehicles, as well as address the Climate Emergency. This needs to be taken forward in the context of wider policy and actions relating to broader measures to encourage and support the use of ULEVs across the region.

On-street provision presents a number of challenges, particularly within the types of residential areas and sensitive urban environments that are common across B&NES.

In order to take forward a well-planned and integrated strategy for delivering on-street charging facilities more work is required to establish key overarching principles and processes, for example in relation to:

- How provision can be delivered in a way that is compatible with the overall capacity of the local electricity grid.
- Identification of the most appropriate infrastructure and technology and systems for on-street EV charging in B&NES.
- How the overall strategy can continue to keep up-to-date and respond to advancements in technology.
- How on-street EV infrastructure can best be funded.
- How implementation of EV on-street charging facilities can most appropriately be prioritised to best meet demand and make best use of available funding.

In the short term, while the wider WoE ULEV strategy is developed and the B&NES framework for on-street EV charging evolves, proposals and requests for on-street EV facilities will need to be carefully considered so as ensure fit with a longer-term strategy. Trial areas will be useful in determining the best long-term approach and provide an opportunity for exploring options and monitoring outcomes.

Appendix A. Policy context

A.1 Introduction

The policy context for the implementation of on-street electric vehicle (EV) charging has two strands:

- Policies and strategies that support, or would be supported by, the development of on-street EV charging; and
- Legislation and guidance that can be used to implement on-street EV charging or should be considered for implementation.

These are considered separately in the following sections.

A.2 Policies and strategies that support, or would be supported by, on-street EV charging

The implementation of on-street EV charging across B&NES would align with and support a wide range of existing policy at both the national and local level. These include:

National Policy

- The National Planning Policy Framework (February 2019)
- Clean Air Strategy 2019 (January 2019)
- The Road to Zero (July 2018)
- The Clean Growth Strategy (October 2017)
- Automated and Electric Vehicles Act (2018)

Local Policy

- West of England Joint Local Transport Plan 4 2020-2036 (January 2020)
- West of England Ultra-Low Emission Vehicle Policy Strategy (note that this document is currently under preparation)
- Bath and North East Somerset Corporate Strategy and Medium-Term Financial Strategy 2020/21 – 2024/25 (December 2019)
- Getting Around Bath Transport Strategy (November 2014)
- Bath and North East Somerset Council's Core Strategy (July 2014)
- Bath and North East Somerset Council's Placemaking Plan (July 2017)
- Emerging Bath and North East Somerset Local Plan (Winter 2018)
- The City of Bath World Heritage Site Management Plan 2016-2022 (September 2016)
- Bath City-wide Character Appraisal (August 2005)
- Balancing your needs: A parking strategy for Bath and North East Somerset (July 2018)
- Bath and North East Somerset Climate Emergency Progress Report (October 2019)
- Bath and North East Somerset Air Quality Management Plans (various)

A.2.1 National Policies

A.2.1.1 The National Planning Policy Framework

A key objective identified within the National Planning Policy Framework (NPPF) is to promote sustainable transport, beside economic growth. *'Transport issues should be considered from the earliest stages of plan-making and development proposals, so that the potential impacts of development on transport networks can be addressed'*.

The NPPF places a great emphasis on 'place making', thus achieving well-designed attractive places that are safe, inclusive, accessible and promote health and wellbeing.

The framework sets out detailed guidance under 17 subheadings that contribute to delivering sustainable development, of which the following are relevant to the development of this electric vehicle strategy.

- Ensuring the vitality of town centres;
- Promoting health and safe communities;
- Promoting sustainable transport;
- Achieving well-designed places
- Meeting the challenge of climate change, flooding and coastal change; and
- Conserving and enhancing the historic environment.

The NPPF identified that planning policies and decisions should ensure that land is used efficiently to ensure sustainable travel modes that limit future car use, the maintenance of an areas character and setting and the highlights the importance of well-designed, attractive and healthy places. The NPPF highlights that to ensure places are safe, secure and attractive conflicts between pedestrians, cyclists and vehicles should be minimised.

Parking guidance, under *promoting sustainable transport*, is provided in the NPPF. It stresses the importance of parking standards ensuring the adequate provision of spaces for charging plug-in and other ultra-low emission vehicles. The NPPF states ""*If setting local parking standards for residential and non-residential development, policies should take into account … the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles." and that "…..applications for development should … be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

Implications for on-street EV charging in B&NES

Guidance in the NPPF establishes that adequate provision of spaces for charging plug-in and ultra-low emission vehicles should be made within new development. This supports a broader move towards increased provision on charging facilities, and overall supports appropriate and accessible provision of charging points.

A.2.1.2 Clean Air Strategy, 2019

This strategy, published by the Department for Environment Food & Rural Affairs, sets out the comprehensive action that is required from across all parts of government and society to meet emission reduction targets. The Clean Air Strategy, alongside the Industrial Strategy, the Clean Growth Strategy and the 25 Year Environment Plan, build upon consultation on emission reductions. The new legislation creates a stronger and more coherent framework for action to tackle air pollution which is underpinned by new England-wide powers enabling stricter control of major sources of air pollution.

Chapter 5 of the strategy details action to reduce emissions from transport and highlights *"transport is a significant source of emissions of air pollution. The immediate air quality challenge is to reduce emissions of nitrogen oxides in the areas where concentrations of these harmful gases currently exceed legal limits."* Exceedance of nitrogen oxides, particularly in areas of living, working or playing, has a negative impact on human health. As such, through publishing 'Road to Zero' in 2018, the government set out a plan to end the sale of new conventional petrol and diesel cars and vans by 2040 to ensure the cleanest conventional vehicles are driven in the UK.

This Clean Air Strategy further supports the creation of Clean Air Zones (CAZ) which operate to lower emissions from all sources of air pollution, backed up with clear enforcement mechanisms. The CAZ framework details principles for local government to define an area where targeted action is to be taken to improve air quality. Resources are prioritised and coordinated to deliver improved health benefits and to support economic growth.

The Clean Air Strategy focuses on improving air quality predominately through reducing NOx and particulate matter. However, it acknowledges how there are opportunities for mitigating climate change and improving air quality together and encourages a move towards electric vehicles.

Implications for on-street EV charging in B&NES

The national Clean Air Strategy encourages the creation of Clean Air Zones to reduce air pollution in local areas. Through this, a CAZ is being introduced in Bath which will prompt vehicle upgrade and behaviour change. This policy aims to improve air quality and reduce vehicle emissions which will be supported through increasing EV charging infrastructure across B&NES.

A.2.1.3 The Road to Zero, 2018

The Road to Zero strategy, published by Department for Transport (DfT), outlines the UK's strategy and measures to promote cleaner road transport and lead in the design and manufacturing of zero emission vehicles. The strategy highlights that transport is the largest sector for UK greenhouse gas emissions (27%), of which road transport accounts for over 90% resulting in road transport is one of the biggest contributors to poor air quality in some of the UK's towns and cities.

Overarching aims of the strategy are to:

- Reduce the emissions from vehicles already on our roads;
- Encourage the uptake of the cleanest new vehicles;
- Reduce emissions from heavy goods vehicles (HGVs) and road freight;
- Place the UK at the forefront of the design and manufacturing of zero emission vehicles; and
- Support the development of one of the best electric vehicle infrastructure networks in the world.

Long term ambitions detailed in the Road to Zero include:

- Put the UK at the forefront of the design and manufacturing of zero emission vehicles;
- All new cars and vans should be effectively zero emission by 2040;
- End the sale of new conventional petrol and diesel cars and vans by 2040 and expect the majority of new cars and vans sold to be 100% zero emission and all new cars and vans to have significant zero emission capability;
- Almost every car and van should be zero emission by 2050; and
- At least 50%, and as many as 70%, of new car sales and up to 40% of new van sales being ultra-low emission by 2030.

It should be noted that in February 2020, Transport Secretary Grant Shapps stated that the date for ending the sale of conventional petrol and diesel cars could be moved forward to 2035 or 2032.

Implications for on-street EV charging in B&NES

The Road to Zero strategy supports a reduction in greenhouse gases, specifically through reducing vehicle emissions and prompting cleaner vehicles on UK roads. It aims to increase the development of zero emission vehicles in the UK through restricting the sales of conventional petrol and diesel cars by 2040. This will be supported and facilitated in B&NES by the development of an EV charging network.

A.2.1.4 The Clean Growth Strategy

The Clean Growth Strategy outlines the government strategy to reduce greenhouse gas emissions by at least 80% by 2050 (compared to 1990 levels). It notes the challenges and policies to deliver increased economic growth with decreased emissions.

One of the challenges listed is how transport related to 24% of UK emission (in 2015). Policies outlined to reduce the emissions include:

- End the sale of new conventional petrol and diesel cars and vans by 2040;
- Spend £1 billion supporting the take-up of ultra-low emission vehicles (ULEV), including helping consumers to overcome the upfront cost of an electric car;
- Develop one of the best electric vehicle charging networks in the world by:
  - Investing an additional £80 million, alongside £15 million from Highways England, to support charging infrastructure deployment; and
  - Taking new powers under the Automated and Electric Vehicles Bill, allowing the Government to set requirements for the provision of charging points.
- Work with industry as they develop an Automotive Sector Deal to accelerate the transition to zero emission vehicles;
- Announce plans for the public sector to lead the way in transitioning to zero emissions vehicles;
- Invest £1.2 billion to make cycling and walking the natural choice for shorter journeys; and
- Position the UK at the forefront of research, development and demonstration of Connected and Autonomous Vehicle technologies, including through the establishment of the Centre for Connected and Autonomous Vehicles and investment of over £250 million, matched by industry.

Implications for on-street EV charging in B&NES

The Clean Growth Strategy sets out the government approach for decarbonising the UK economy through the 2020s. One of the policies for reducing the transport emissions is to develop the electric vehicle charging network. This will be supported by the development of EV charging across B&NES.

A.2.1.5 Automated and Electric Vehicles Act

The Automated and Electric Vehicles Act was passed by the UK Government in July 2018 to provide legislative support for the uptake of Electric Vehicles.

The Act makes provision widespread EV charging facilities and aims to improve customer confidence in charging vehicles through ensuring that public charging points are compatible with all vehicles, standardising the payment at charging points and setting standards for reliability.

Implications for on-street EV charging in B&NES

The Act is intended to support the delivery of electric vehicles through powers to allow the Government to regulate public electric charging which standardises the compatibility, payment and reliability of charging points.

A.2.1.6 Decarbonising Transport, Setting the Challenge

The Department for Transport (DfT) set out the challenges facing the government's plan to accelerate the decarbonisation of transport ahead of the production of the Transport Decarbonisation Plan (TDP) anticipated in Autumn 2020. The TDP will take a coordinated, cross-modal approach to deliver the transport sector's contribution to both carbon budgets and net zero.

The six strategic priorities set out to guide the delivery of net zero transport system are:

- Accelerating modal shift to public and active transport;
- Decarbonisation of road vehicles;
- Decarbonising how we get our goods;
- Place-based solutions;
- UK as a hub for green transport technology and innovation; and
- Reducing carbon in a global economy.

EV on-street charging could directly support the priority to accelerate the decarbonisation of road vehicles. The document states: *"As we move to the mass adoption of ULEVs, more infrastructure will be needed alongside improvements to the consumer experience of using it. Whilst many EV drivers are likely to choose to charge their vehicles at home, or at their workplace, 20 to 30% of motorists do not have off-street parking. More than a third of households in England do not have access to off-street parking, and this proportion increases in urban areas where air quality concerns are most acute. Not everyone without off-street parking has a vehicle, but there are indications that around 25% of cars are parked on-street overnight."* Through enabling the delivery of on-street EV infrastructure in B&NES, this can help support the delivery of the Decarbonising Transport report.

Implications for on-street EV charging in B&NES

Through enabling the delivery of on-street EV infrastructure in B&NES, this can help support the delivery of the Decarbonising Transport report.

A.2.2 Local Policies

A.2.2.1 West of England Joint Local Transport Plan 2020-2036

The JLTP4 document has been developed to deliver the long-term aspiration for transport in the West of England, which has been encompassed in the transport vision for JLTP4: *"Connecting people and places for a vibrant, inclusive and carbon neutral West of England".*

Five objectives have been identified, based on the aspirations of the West of England authorities and previous plans and policies prepared:

- Support sustainable and inclusive economic growth;
- Enable equality and improve accessibility;
- Address poor air quality and take action against climate change;
- Contribute to better health, wellbeing, safety and security; and
- Create better places.

The JLTP4 places large importance on the challenge of climate change identifying that, if no action is taken, CO2 emissions in the West of England will rise by 22% by 2036. Importance is therefore placed upon modal shift and encouraging greener modes of transport. It states that:

"By 2036 at the completion of the JLTP4 the West of England will be a carbon neutral community where walking and cycling are the preferred choice for shorter journeys, and the vast majority of vehicles on the road are decarbonised and no longer powered by fossil fuels".

The JLTP4 follows on from the West of England's Joint Transport Study (2017)[8], which outlined a clear direction for the long-term development of the transport system in the West of England to 2036 and beyond linking to the delivery of the West of England's Joint Spatial Plan (2017)[9], which sets out policies and principles for determining the most appropriate and sustainable locations for future development to meet housing, employment and transport needs, up to 2036.

[8] https://www.jointplanningwofe.org.uk/gf2.ti/-/757442/31727173.1/PDF/-/JTS_Final_Report.pdf
[9] https://www.bristol.ac.uk/media-library/sites/estates/documents/West_of_England_Joint_Spatial_Plan__Publication_Document_2017%20(5).pdf

Economic development and housing growth are tied to growth in vehicle traffic. As part of JSP, B&NES was forecast to accommodate an additional 14,500 houses and the Bath City Riverside Enterprise Area, accommodating 9,000 new jobs, was identified. This scale of economic development will not only increase traffic on the highway network but will also increase the number of people likely to be subjected to any ongoing air quality issues in Bath. Transport is widely acknowledged as a key driver of air quality issues, with highway traffic problems such as congestion and fleet composition considered as a primary source of air pollution. The West of England JSP in its current form as a regional spatial strategy, is no longer being progressed and is not adopted policy. However, the growth and development considerations are to be progressed as part of each constituent authorities' local planning strategies and policies.

Section 5 of the JLTP4 draws attention to the aims to improve connectivity across the region. Within this, it is noted that, "*in seeking to reduce the level of emissions, including carbon, we will provide infrastructure to support the use of electric vehicles*".

Section 7 of the document identified improvements to connectivity within the West of England. It states how parking controls can be beneficial in encouraging modal shift and as such reducing carbon emissions and air quality. It states that:

"The potential for emerging technology in improving car park and kerb management will be considered through, for example, the reservation of on-street parking spaces (including EV charging points)."

Section 8 of the JTLP4 highlights the ambitions for local connectivity which will be used to inform the development of the EV strategy. The policies in the JLTP4 to enhance local connectivity are:

- **Support work on zero and low emission vehicles**

  This will be supported through identifying and addressing any barriers to the uptake of ULEVs, especially in areas declared as AQMAs or CAZs. Additionally, work will be undertaken to introduce policy supporting EV uptake, promote ULEVs to run on renewable energy, change parking standards to require new developments to provide greater levels of charging infrastructure.

- **Support necessary infrastructure to encourage ULEVs**

  This will include the development of a regional electric vehicle charging network and 4 rapid charging hubs at locations across the region allowing owners to charge their vehicles in 30 minutes or less.

- **Support opportunities for all sectors of the population to access the services they require, wherever they live; and**

  This will be supported through supporting technology in accessing services and employment and support taxis, private hire and demand responsive community transport. Support for those without a private car can access the services that they require.

- **Support the identification and implementation of measures that will improve air quality.**

  Air quality improvements will be supported through managing the impact of transport on air quality and climate change, Clean Air Zones and the UK Air Quality Plan and through support for work on Zero and Low Emission Vehicles.

Implications for on-street EV charging in B&NES

The JTLP4 sets out the transport aspirations for the West of England up to 2036 including aims to support the development and uptake of ULEVs. The implementation of an EV strategy in B&NES is key to enable and drive the shift to electric vehicles, therefore helping to deliver the reduce carbon emissions and improve air quality. It should be noted that the B&NES EV strategy should align with the improvements outlined within the JTLP4 and be delivered alongside these.

A.2.2.2 West of England Ultra-Low Emission Vehicle Policy Statement 2020-2023 (emerging)

The West of England authorities are currently working together to develop a policy statement on Ultra-Low Emission Vehicles. This will acknowledge the climate crisis and the requirement for a rapid switch to carbon neutral transport. As such, the document will outline the steps to be undertaken to accelerate the shift to zero emission vehicles. The objectives will be centred around shifting to ULEV vehicles and include support for the roll out of charging points. This policy statement remains in development.

Implications for on-street EV charging in B&NES

The emerging ULEV strategy will encourage and support a shift to carbon neutral transport across the West of England through various objectives including increasing electric charging points. The development of a strategy for the delivery of on-street charging points in B&NES will be in line with the West of England's overall approach to ULEVs.

A.2.2.3 Bath and North East Somerset Draft Corporate Strategy 2020 -2024

The Corporate Strategy sets out the Council's overarching strategic plan. It was published in draft in December 2019 for engagement which will closed at the end of January 2020. The Strategy identifies the framework, challenges and core policies for the next four years.

The two core policies set out in the draft Corporate Strategy are: Tackling the climate and nature emergency and Giving people a bigger say. Three priority areas have been identified in the Corporate Strategy to help to tackle the climate and nature emergency:

- Energy efficiency improvements to existing buildings and zero carbon for new build;
- A major shift to mass transport, walking and cycling to reduce transport emissions; and
- A rapid and large-scale increase in local renewable energy generation.

One of the key commitments stated in the draft Corporate Strategy, and of relevance the EV strategy, is to "Introduce 'on-street EV charging' working with schools and local communities".

Implications for on-street EV charging in B&NES

The Corporate Strategy sets out the overarching strategic plan for the Council which including a reduction in transport emissions. It details the key commitment to introduce on-street EV charging working with schools and local communities which this development of this policy on EV charging directly supports.

A.2.2.4 The Getting Around Bath Transport Strategy

The Getting Around Bath Transport Strategy sets out the transport ambitions covering the period up to 2029. It highlights the vision for the city: *"Bath will enhance its unique status by adopting measures that promote sustainable transport and reduce the intrusion of vehicles, particularly in the historic core. This will enable more economic activity and growth, while enhancing its special character and environment and improving the quality of life for local people".*

This strategy identifies the reduction of the impact of vehicles through encouraging sustainable transport as the key overarching aim. It establishes the following objectives:

- Supporting and enabling economic growth, competitiveness and jobs;
- Improving air quality and health, reducing vehicle carbon emissions;
- Promoting sustainable mobility;
- Widening travel choice;
- Widening access to opportunities: jobs/learning/training;
- Safeguarding and enhancing the unique historic environment and World Heritage Site status; and
- Improving the quality of life in the city.

Fifteen policies have been identified in the strategy to help deliver the vision and objectives. Those that are relevant to the EV strategy are listed below.

Policy GABP1: Reduce the impact of vehicles

"That a strong emphasis should be given to reducing the impact of vehicles by supporting trips that are made by means other than car, particularly walking and cycling with more people using improved bus and rail networks."

A key strand of the Strategy is to reduce the impact of vehicle movements through a combination of measures including better traffic management, comprehensive parking controls, expansion of park and ride and enabling people to walk, cycle and use trains and buses. All these contribute to reducing in car journeys and addressing the problems manifest in the Air Quality Management Area.

Parking in particular is a key issue and progressive reductions in the supply of public on- and off-street parking to support a shift to the provision of long stay parking at Park and Ride sites have been implemented in recent years.

Policy GABP4 - Reduce vehicle emissions

"Vehicle movement should be better managed to reduce traffic impact and emissions, particularly in the city centre where there is less space available."

Additional parking in the core of the city unrealistic since space is scarce, and additional traffic would be undesirable. Instead, parking within walking distance of all the main destinations should be available.

Measures to restrict traffic can be highly effective. Such measures need to be considered in the wider context to understand the implications for other parts of the city.

Policy GABP4 notes through-traffic to be a problem. This includes traffic with both an origin and destination outside the city which has no purpose in Bath and should use other routes. Measures will include:

- Development of a city centre traffic management plan;
- Setting principles
  - Removing gyratories;
  - Removing traffic signals where possible; and
  - Creating shared spaces.
- Addressing strategic and local 'through-traffic' (around 12% of volume) especially heavy vehicle enforcement; and
- Traffic management related to development sites e.g. Enterprise Area.

Policy GABP7: Appropriately reduce parking central parking provision

"Car parking is a central feature of the strategy, enabling other components to take effect. The policy of reducing central area public parking and expanding long stay capacity at Park and Ride sites should continue, enabling greater emphasis to be given to walking, cycling and bus services in the historic core and on key corridors. Reduction of city centre parking will not take place until alternatives are in place."

An objective of the B&NES wider parking strategy is to effectively manage the transport impact and total parking supply. Whilst no policies in the strategy refer to electric vehicles, the document highlights that in consultation 74% of respondents supported proposals to increase facilities for electric vehicles within the city centre.

Implications for on-street EV charging in B&NES

The Getting Around Bath Transport Strategy outlines the aims and objectives for transport within Bath. It outlines the support of residents during consultation for electric vehicle facilities within the city centre. The development of an on-street EV policy will support the consultation comments and policies within the Strategy for reductions in carbon emissions.

A.2.2.5 Existing B&NES Local Plan (Core Strategy and Placemaking Plan)

The existing B&NES local plan comprises of the Core Strategy (CS) and the Placemaking Plan (PMP).

The Core Strategy (July 2014)

Adopted in 2014 (updated in 2017 with the introduction of the Placemaking Plan), the Core Strategy is a key policy document for B&NES that puts in place a strategic planning framework to guide change and development in the District over the following 20 years and beyond.

Strategic objectives include:

- Pursue a low carbon and sustainable future in a changing climate;
- Protect and enhance the District's natural, built and cultural assets and provide green infrastructure;
- Encourage economic development, diversification and prosperity;
- Invest in our city, town and local centres;
- Meet housing needs;
- Plan for development that promotes health and wellbeing; and
- Deliver well connected places accessible by sustainable means of transport.

In conjunction with the JLTP4, the Local Plan will deliver this by:

- Locating and designing new development in a way that reduces the need and desire to travel by car and encourages the use of public transport, walking and cycling;
- Ensuring that development is supported by high quality transport infrastructure which helps to increase the attractiveness of public transport, walking and cycling; and
- Promoting improved access to services especially for rural and more remote areas.

The Placemaking Plan (July 2017)

The Placemaking Plan complements the Core Strategy and covers detailed development management and design principles for allocated sites within the Authority. Moreover, it entails a range of policies for the management and protection of valued assets throughout Bath and North East Somerset.

The document focuses on each of the Authority's local areas separately.

For Bath, the plan states that it is vital to reduce the impact of vehicles, as it is a unique UNESCO World Heritage city. Achieving this successfully will require a combination of measures, including a parking strategy, continued expansion of the existing Park and Ride sites and finding a new solution for coach parking.

For Keynsham, one of the main reasons for local residents not visiting the town centre was difficulty in parking. Additionally, limited car parking capacity in the town centre is presented as one of the risks with the current spatial strategy.

For Somer Valley, the plan states that the accessible parking in Midsomer Norton Town Centre is an asset, but that the dominance of parking in the street scene could hinder a successful implementation of the spatial strategy. Making improvements in car parking provision would help to reinforce this area as an accessible town centre arrival point. Together with improved pedestrian connections this could stimulate greater movement to and from the High Street and make more use of the park and leisure facilities.

Implications for on-street EV charging in B&NES

The local plan details the vision for development across B&NES. The Core Strategy outlines the objectives which includes a sustainable, low carbon future which will be supported through the development of EV charging.

A.2.2.6 The Emerging B&NES Local Plan

The Emerging Local Plan has been prepared alongside the (now withdrawn) West of England Joint Spatial Plan (JSP). The Emerging Local Plan will include a strategy to guide development, site allocations (including strategic development locations and smaller sites) to meet development requirements and district-wide Development Management policies for determining planning applications. Consultation on the Local Plan Options document took place in November 2018 until January 2019 on the Emerging Local Plan. Comments from the consultation are being analysed ahead of the publication of the Draft Local Plan.

The emerging core strategy sets out the councils' values and priorities:

- Protect and care for our most vulnerable;
- Nurture residents' health, safety and wellbeing; and
- Provide ways for everyone in the community to reach their full potential.

The Local Plan Options document details that the values should be considered when reading the Spatial Priorities:

- Pursue a low carbon and sustainable future in a changing climate;
- Protect and enhance the District's natural, built and cultural environment and provide green infrastructure;
- Facilitate a strong, productive, diverse and inclusive;
- Meet housing needs arising from a changing and growing population;
- Plan for development that promotes health and well-being;
- Deliver well connected places accessible by sustainable means of transport; and
- Ensure the timely and efficient provision of infrastructure to support growing communities.

For B&NES, the withdrawn JSP proposed a requirement to plan for 14,500 new dwellings by 2036 which is an additional 4,700 houses than set out in the existing committed sites. The local plan, when adopted will have the role of establishing how the "non-strategic" growth of 700 dwellings can be accommodated within B&NES and as such, the report sets out two options for this.

In terms of transport, the options study sets out the changes since 2011. Policies proposed to tackle the challenges outlined in the document include DM1 which outlines the approach for carbon reduction. This includes aims to use less energy, use clean energy and offset what can't be mitigated on site.

DM16 outlines the policy approach for electric vehicle infrastructure with the overarching principle that all development proposals will be required to integrate the provision of infrastructure into the design and layout of the development to enable the charging of electric or other Ultra-Low Emission vehicles.

Implications for on-street EV charging in B&NES

The Emerging Local Plan sets out the future aspirations for development across B&NES. The Plan is supportive of reducing carbon emissions and providing electric vehicle infrastructure. It supports electric vehicle infrastructure through new developments.

A.2.2.7 The City of Bath World Heritage Site Management Plan

The City of Bath World Heritage Site Management Plan (2016-2022) was presented to Bath and North East Somerset Council's Full Council meeting on 15 September 2016. The Council endorsed the plan for submission to the Department for Culture, Media and Sport (DCMS) and in turn to UNESCO.

The City of Bath has been a World Heritage Site (WHS) since 1987, recognised as a place of Outstanding Universal Value (OUV) for its architecture, town-planning, landscape, archaeological remains and its role as a setting for social history.

The plan priorities are:

- Managing Development;
- Transport;
- Public Realm;
- Interpretation and Education; and
- Environmental Resilience.

In terms of transport, the plan states that the congestion poses a major issue for the World Heritage Site (WHS) having detrimental impacts on air quality, residents and businesses. The plan sets out the following objectives and actions relating to transport:

- Objective 3: Work to control traffic growth and harm, and encourage and promote less car use, especially in the city centre.
- Action 5: Engage with and monitor the delivery of the Transport Strategy (2014) objectives & seek to ensure that they deliver maximum benefit & no unacceptable impact to the OUV of the WHS & its setting.
- Objective 4: Ensure that other national and regional bodies take full account of the WHS in their strategic planning.
- Action 6: Engage with central government & neighbouring authorities as necessary to reduce the impact of major road traffic routes passing through the WHS.
- Objective 5: Ensure that new street works, and other developments are completed to high and consistent design standards allowing good accessibility to all.
- Action 8: Continue to implement public realm improvements, especially with regard to poor pavement surfaces.
- Action 9: Ensure that the Bath Pattern Book is adhered to & updated as necessary to guide street works in the WHS.
- Action 10: Continue to reduce the impact of vehicular traffic & continue the closure of key streets within the site to vehicles where there is a valid case for doing so.
- Action 17: Install welcome signs on road, rail, river, canal & walking entrance points & seek to improve way marking for heritage walking routes.
- Action 26: Support actions to reduce air pollution, primarily caused by petrol/diesel powered vehicles, which is a direct risk to people & historic fabric within the WHS.

Implications for on-street EV charging in B&NES

The World Heritage Site Management Plan identifies traffic as a major issue for the WHS and aims to promote less car use and improve air quality. EV charging points implementation should consider the distinct nature of the WHS to ensure appropriate installation for the streetscape.

A.2.2.8 Bath City-wide Character Appraisal

The Bath City-wide Character Appraisal was carried out in 2004 – 2005 to help develop the understanding of the character of the city. It was adopted as a Supplementary Planning Document in 2005. The aims of the document are:

"By identifying key elements of character and highlighting variations across the city this document will help to retain, conserve, maintain and enhance Bath's character and quality through the development control process and by informing other projects such as public realm enhancements."

The document identifies 22 character areas which consider the physical influences, land use and buildings, streets and civic spaces, vegetation and open space, features, landmarks and views and cultural influences.

Implications for on-street EV charging in B&NES

The document outlines the 22 character areas recognising the World Heritage Site, Hot Springs, Conservation Areas, Green Belt, Areas of Outstanding Natural Beauty, Listed Buildings, Ancient Monuments and historic landscapes. Consideration of these areas is required in the implementation of EV charging infrastructure to establish suitable locations, materials and design.

A.2.2.9 Balancing Your Needs: A parking strategy for Bath and North East Somerset

The parking strategy was developed in line with the policies in the Placemaking Plan and the current and emerging B&NES transport strategies which have been developed for a number of towns and areas within the authority. In particular, the parking strategy supports the need to reduce the level of intrusion of vehicles into urban centres, reflecting concerns about the impact of traffic congestion on the environment and air quality, as well as the need to protect the historic fabric of the World Heritage Site (WHS) in Bath.

The principles of the parking strategy are:

- To sustain and enhance the vitality and viability of settlements within Bath and North East Somerset, including the City of Bath, through parking policies which support the prosperity of the city and towns whilst reducing traffic in the most congested areas and improving the air quality;
- To effectively manage the total parking supply, which includes all types of parking, and consider priorities, regulation, charges and enforcement; and
- To manage travel demand in new developments by introducing restraint-based car parking standards, to avoid the over provision of car parking spaces, whilst meeting the needs of essential users.

The strategy outlines that on street parking is in high demand, particularly in the centres of Bath and Keynsham. To ensure best use of the kerb space the parking strategy includes a hierarchy of kerb space which prioritises alternatives to private car trips, maintains accessibility for disabled users and supports the operation of businesses. Within Bath controlled parking zones are used to manage street parking demand.

Off street public parking have high occupancy levels, particularly in Bath and the strategy states that over time, long stay off street parking will be reduced in favour of short stay parking and Park and Ride facilities which are growing in popularity. Private car parks in Bath also have high occupancy levels and the strategy notes that changes to these will have significant impacts to travel patterns.

The strategy states that a reduction of prescribed parking standards may be justified in areas with high connectivity and good public transport provision and that the 'Bath and North East Somerset Council's Development Accessibility Assessment' assesses a site's level of connectivity before proposing a reduction from the standards.

The main parking objectives and action points, of relevance to this strategy, are summarised in Table A-1. Objective PSO25 is particularly relevant to the EV strategy as it states support for an increase in the number of electric vehicle charging points on street and within car parks.

Table A-7-1: Types of interventions and measures that could be used to support on-street EV charging

Theme	Objective
Parking Standards	PSO1 Encourage and facilitate the provision of car club bays within new developments to reduce car ownership and pressures on residential parking within Bath
	PSO2 Developments within Bath and North East Somerset should provide provision for electric vehicle charging points in accordance with the following standards: Residential developments with shared car parks –active provision for 20% spaces and passive provision for 20% spaces Residential developments with individual parking – passive provision within each property Commercial developments – active provision in 5% car parking spaces
Managing On-Street Parking	PSO6 Where it is deemed safe, on-street parking will be allocated using a balance approach to meet the demands in accordance with the Hierarchy of Kerb Space. Parking restrictions will be introduced, or parking prevented altogether, in order to reduce traffic and to maintain free flow of the highway network.
	PSO7 Within the centre of Bath priority for on-street parking will be given to disabled users, then residents parking zones and then short stay parking (maximum 2 hours) at the expense of long stay parking.
	PSO8 Additional Residents Parking Zones in all areas of Bath and North East Somerset will only be introduced in accordance with the 'Purpose of Residents Parking Schemes' where it can be demonstrated that the criteria outlined in 'Guidance to the Introduction of Residents Parking Schemes' has been met and the scheme has the support of local members.
	PSA 1 The Council should consider undertaking a strategic review of the existing residents parking scheme zoning system to determine whether an alternative zoning structure would result in more efficient use of on-street spaces.
	PSA 2 The Council will consider altering the hours of operation of residents parking zones, where sufficient evidence can be provided to demonstrate support for a change amongst residents and local members in line with criteria outlined in 'Guidance to the Introduction of Residents Parking Schemes'.
	PSA 3 The Council should undertake a review of the available permit types and remove those that do not comply with the objectives and policies of this strategy.
	PSO9 Allocation of permits to new developments, and existing properties with a new use, will be in accordance with the policy set out in E2911. In particular, permits will not be allocated in zones where the potential demand of existing properties exceeds the available capacity.
	PSA 4 Surveys undertaken in March 2015 and November 2016 suggest there is currently residual capacity on-street in Keynsham. The Council will undertake periodic reviews of on-street parking demand in Keynsham to monitor whether intervention is required.
	PSA 5 Recent evidence suggests that there is available capacity on-street in the Somer Valley. The Council will undertake periodic reviews of on-street parking demand in the Somer Valley to monitor whether intervention is required.
	PSA 6 Issues related to a lack of passing places caused by on-street parking will be considered by the Council on a case by case basis, with the aim of minimising safety problems.
Multi Modal Parking	PSA 14 Establish an expert panel on disability issues to guide policy decisions.
	PSO23 Ensure adequate parking is provided in suitable locations for disabled users and enforce the proper use of it. Undertake a review of access routes between off-street disabled parking and the city centre, particularly where changes to provision and/or location are implemented, to ensure that the existing level of provision is maintained or improved.
	PSO24 Continue to encourage the provision of car clubs in central Bath.
	PSO25 Support an increase in the number of electric vehicle charging points on street and within car parks.
	PSO26 Improve the provision of high-quality dedicated motorcycle parking spaces on street and in Council operated off-street car parks.
	PSA 15 Work with operators and stakeholders to increase the provision, maintenance and desirability of on-street cycle parking spaces at retail and leisure facilities.
	PSA 16 Work with operators and stakeholders to increase the provision, maintenance and desirability of high quality covered cycle parking spaces at Bath train station.
	PSO27 Provide adequate parking and drop off/pick up facilities for coaches in Bath in accordance with the Coach Strategy.

Theme	Objective
	PSO28 Continue to support the operation of taxis in Bath and North East Somerset through provision of adequate and suitable located taxi ranks, and consider appropriate locations for electric charging points. This should be periodically reviewed to respond to changes in travel patterns resulting from alternative taxi services.
	PSO29 Ensure suitable provision of unloading/loading space to support local businesses and operations
	PSO30 Hours of access for servicing and delivery vehicles in the centres of Bath and Keynsham will be restricted if required to support the delivery of public realm improvements, including aspirations within the Public Realm Movement Strategy.
Information and Enforcement	PSO31 Parking enforcement should facilitate protection of road space in order to maintain free flow of traffic in the network, ensure off-street parking is used as intended and encourage education of motorists to avoid penalties and ensure the protection of pedestrian safety.

Implications for on-street EV charging in B&NES

The Parking Strategy supports electric vehicle provision with support for an increase in the number of electric vehicle charging points on-street and within car parks. This strategy will build on the policy commitment through delivering a framework for on-street EV charging.

A.2.2.10 B&NES Climate Emergency Progress Report

In March 2019 B&NES declared a Climate Emergency[10] committing the Council to provide leadership enabling the local authority to achieve carbon neutrality by 2030. The resolution included that he Council recognises "*the need to enable low carbon living across society through changes to laws, taxation, infrastructure plus transport in all forms, policies and plans*".

The Climate Emergency promoted the development of the Climate Emergency Outline Plan to be presented to Council in October 2019. The recommendations put to B&NES within the report include 3 immediate priorities:

- Energy efficiency improvement of the majority of existing buildings (domestic and non-domestic) and zero carbon new build;
- A major shift to mass transport, walking and cycling to reduce transport emissions; and
- A rapid and large-scale increase in local renewable energy generation.

With regards to transport, the proposed targets are:

- 25% reduction in car use km per person per year;
- Modal shift creates 7% reduction in car travel;
- Passenger kms travelled to comprise Electric cars: 76% pure battery EV, 14% Petrol Hybrid EV; and
- 76% electric buses, 24% hybrid buses.

The Council will lead the establishment of a new district-wide partnership, named the B&NES Climate Emergency, Environment and Place Partnership. This will encompass work from relevant existing local and West of England partnerships, strategies and projects.

Implications for on-street EV charging in B&NES

The Climate Emergency report details B&NES' commitment to carbon neutrality by 2030 which includes aims to increase electric vehicle uptake across B&NES. The EV strategy will help to enable the shift to electric vehicles as set out in the on-road transport targets.

A.2.2.11 B&NES air quality management plans

[10] https://democracy.bathnes.gov.uk/documents/g5196/Public%20minutes%2014th-Mar-2019%2018.30%20Council.pdf?T=11

B&NES has five designated air quality management areas (AQMA), where levels of nitrogen dioxide exceed the national annual average objective of 40 micrograms per cubic metre (µg/m3). The AQMAs are located in: Bath, Keynsham, Saltford, Farrington Gurney and Temple Cloud.

Bath Clean Air Zone

The full business case[11] has been developed for Bath's Clean Air Plan, which is scheduled for approval by Bath's Cabinet in January 2020. It outlines preferred option proposals including a Class C Clean Air Zone (CAZ), assumptions regarding bus replacement/retrofitting, a traffic management scheme at Queen Square and a package of non-charging measures.

The Plan proposals look to deliver widespread behaviour change, such as: accelerated vehicle upgrading, switch in preference for vehicles by fuel type, reduction in non-compliant vehicle fleet, increased mode share of public transport, increased mode share of active travel modes, diverted/cancelled trips, changes to use of highway network across B&NES. These changes look to deliver impacts including improved air quality, increased physical activity, improved human health and making Bath a cleaner more attractive place to live, work and visit.

Implications for on-street EV charging in B&NES

The Clean Air Plan is anticipated to increase the uptake of electric vehicles within Bath which has informed the development of the EV on-street charging policy – particularly future fleet composition assumptions and consideration of infrastructure provision. An EV strategy would help to enable the shift to electric vehicles as set out in the on-road transport targets.

A.2.2.12 Air Quality Action Plans for Keynsham and Saltford

The air quality action plans for Keynsham and Saltford outline actions that Bath & North East Somerset Council recommend are delivered in Keynsham and Saltford between 2016-2021 in order to reduce concentrations of air pollutants and exposure to air pollution. These include the following measures relevant to this strategy:

- Changes to traffic management;
- Information campaigns;
- Increase in public and private electric vehicle charging infrastructure;
- Pedestrian and cycling facility improvements, including cycle parking and cycle routes;
- Exploration of "electric zones"; and
- Influence development designs to improved access to public transport, cycling and walking routes, including prioritisation and lighting.

Implications for on-street EV charging in B&NES

It is estimated that electric vehicle ownership will increase across Keynsham and Saltford as a result of the plan. The electric vehicle on-street charging policies and consideration of infrastructure provision as part of this Strategy document will take account of these air quality action plans.

A.3 Legislation and guidance that can be used to implement on-street EV charging or should be considered in their implementation

The following legislation gives B&NES the powers required to implement on-street EV charging:

- The Road Traffic Regulation Act 1984; and
- The Traffic Management Act 2004.

A.3.1 The Road Traffic Regulation Act 1984

[11] https://www.bathnes.gov.uk/sites/default/files/siteimages/Environment/Pollution/674726.br_.042.fbc_-_bath_clean_air_plan_fbc_draft.pdf

The Road Traffic Regulation Act 1984 provides powers to regulate or restrict traffic on UK roads, in the interest of safety. The Act contains sections on parking places and enforcement, which are relevant to the implementation and management of on-street EV charging spaces.

The Act enables the local authority to make Traffic Regulation Orders (TROs) which can limit or prohibit parking. They could be used, for example, to limit parking to permit holders or to enforce length of stay. TROs have a legal requirement for consultation and implementation must follow the statutory process.

TROs can be permanent or temporary. Temporary orders have a maximum time limit of 18 months. The procedure for making permanent or temporary orders varies. For permanent orders the procedure is:

- **Preliminary requirements:** Consultation with bodies specified in Regulation 6, such as the emergency services and other public bodies must take place. Other interest groups such as local residents and traders may be consulted where appropriate. The TRO must also be advertised in the local press and usually on local display notices around the roads affected for at least 21 days.
- **Public objections and inquiries:** Anyone can object in writing to an order by the date specified on the notices or if later within 21 days of the notice being given and publicity being adequate. A public inquiry may be held in certain circumstances if it affects loading and unloading times or bus services.
- **Consent for certain schemes:** The Secretary of State's consent is required where a scheme affects a road for which (s)he is the traffic authority; where a scheme will restrict access to property for 8/24 hours.
- **Making an order:** Orders cannot be made before the statutory period for objections has ended or after a period of two years from the making of the initial notice. Within 14 days of making the order the authority must place a notice in the local press announcing their decision.

In contrast to TROs, Experimental Traffic Orders (ETOs) may be implemented without consultation / publicity and feedback on the order is then gathered. The Roads: Traffic Regulation Orders 2014 House of Commons Research Briefing Paper[12] states "*This can be a more cost effective and flexible approach (allowing e.g. for immediate feedback and minor changes) than a permanent order or a temporary order".*

Implications for on-street EV charging in B&NES

Should B&NES wish to implement on-street electric vehicle charging points which can only be used by electric vehicles, for a time limited period, this should be implemented through a TRO and the process, as set out in the Act, followed.

A.3.2 The Traffic Management Act 2004

The Traffic Management Act 2004 gives powers to reduce traffic congestion in towns and cities and reduce disruption on the road network. All parties interested in occupying the highway need to follow specific guidelines. The Act outlines that it is the duty of the local traffic authorities to secure the movement of traffic on the authority's road network an any action they consider secures:

- The more efficient use of their road network; or
- The avoidance, elimination or reduction of road congestion or other disruption.

The Act ensures effective communication between highway authorities and parties interested in carrying out street works. Powers are given to highway authorities to impose fixed charges in case of any failure to follow the guidelines. The Act (part 6) also gives tools to local authorities to manage parking policies and enforce some traffic moving offences.

The Secretary of State's Statutory Guidance to Local Authorities on the Civil Enforcement of Parking Contraventions, published under the Traffic Management Act, sets out the policy framework for Civil Parking Enforcements. This sets out that enforcement authorities should design their parking policies with particular regard to:

[12] https://commonslibrary.parliament.uk/research-briefings/sn06013/

- *Managing the traffic network to ensure expeditious movement of traffic, (including pedestrians and cyclists), as required under the Traffic Management Act 2004 Network Management Duty*
- *Improving road safety;*
- *Improving the local environment;*
- *Improving the quality and accessibility of public transport;*
- *Meeting the needs of people with disabilities, some of whom will be unable to use public transport and depend entirely on the use of a car; and*
- *Managing and reconciling the competing demands for kerb space.*

Implications for on-street EV charging in B&NES

The Guidance also highlights how the enforcement authorities should adopt the lowest penalty charge level consistent with a high level of public acceptability and compliance. London Boroughs have used this guidance for enforcement of electric charging spaces only being utilised for charging electric vehicles.

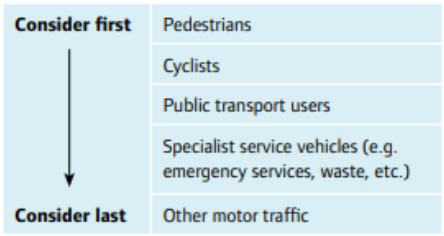
A.3.3 Manual for Streets & Manual for Streets 2 guidance

A.3.3.1 Manual for Streets

Although not policy, Manual for Streets (MfS) changed the approach to the design, construction, adoption and maintenance of urban streets. It provided a revised 'movement framework', which changed the focus from heavy engineering influenced design standards, to considering connectivity and flow of movement.

"*Street networks should, in general, be connected. Connected, 'permeable' networks encourage walking and cycling, and make places easier to navigate through*."

In MfS, policies are aimed at making car use a matter of choice rather than a habit or dependence. Whilst the movement framework is recommended for a new development be based on user hierarchy, the principles are just as relevant when considering existing infrastructure and changes to road-space allocation or prioritisation of modes. Ultimately, applying the hierarchy will lead to a design change that increases the attractiveness of walking, cycling and the use of public transport.



MfS encourages a reduction in the need to travel by car through the promotion of mixed-use neighbourhoods with interconnected street patterns, where daily needs are within walking distance of most residents, named the 'walkable neighbourhood'. For increased pedestrian movement, Manual for Streets advises:

- The propensity to walk is influenced not only by distance, but also the quality of the walking experience;
- Pedestrian networks need to be connected. Where routes are separated by heavily-trafficked routes, appropriate surface-level crossings should be provided;
- Pedestrians should generally be accommodated on multifunctional streets rather than on routes segregated from motor traffic. In situations where it is appropriate to provide traffic-free route they should be short, well-overlooked and relatively wide;
- Obstructions on the footway should be minimised; and
- There is no maximum width for footways, widths should take account of pedestrian volumes and composition.

A.3.3.2 Manual for Streets 2

Manual for Streets 2 (MfS2) echoes key principles from the first addition, including:

- Application of a user hierarchy – pedestrians are at the top. Thus, the needs of pedestrians are considered first when designing, building, retrofitting, maintaining and improving streets;

- Recognising the importance of the community function – streets to be considered as spaces for social interaction. Streets to integrate and not segregate communities and neighbourhoods;
- Promoting an inclusive environment – design that recognises the needs of people of all ages and abilities. Designs must recognise the importance of way-finding and legibility;
- Reflecting and supporting pedestrian and cyclist desire lines;
- A locally appropriate balance should be struck between the needs of different user groups – traffic capacity to not always be primary consideration in street design;
- Encouraging innovation – a flexible approach to street layout; and
- Designing to keep vehicle speed at or below 20 mph – in particular, where there is significant pedestrian movement.

The Manual for Streets 2 document acknowledges the benefits of reducing reliance on motorised vehicles and opening upon spaces for shared purposes. Notably, "*making appropriate provision for road-based public transport, cycling and walking can help encourage modal shift from the private car, and so contribute to the sustainability and health agendas*".

Enhancing street environments through removal of clutter, use of shared space and enhanced street lighting can help stimulate local economic activity, reduce street crime and encourage a sense of local community. This in turn encourages more local, shorter distance travel on foot or by cycle. Ultimately conforming to MfS first principle of user hierarchies.

Shared space is predominantly an approach to highway design and can be introduced for a range of purposes including:

- Improving the built environment;
- Giving people freedom of movement rather than instruction and control;
- Improving the ambience of places;
- Enhancing social capital;
- Enhancing the economic vitality of places; and
- Safety.

A shared space is defined as a street or place accessible to both pedestrians and vehicles that is designed to enable pedestrians to move freely by reducing traffic management features that tend to encourage users of vehicles to assume priority.

Implications for on-street EV charging in B&NES

The key principles detailed in Manual for Streets and Manual for Streets 2 should be applied to the implementation of EV charging infrastructure to ensure that consideration of pedestrians / cyclists and public transport users are prioritised therefore ensuring that space for these users is not inappropriately restricted by EV charging infrastructure.

A.3.4 Guidance for on-street residential grant scheme

Although not policy, this recently updated guidance document (May 2020)[13] invites local authorities to submit applications for the on-street residential grant scheme. The scheme aims to increase on-street charging points in residential streets where no off-street parking is available, to ensure this does not act as a barrier to the realisation of the benefits of plug-in electric vehicle ownership. The scheme will be administered by the Energy Savings Trust on behalf of Office for Low Emission Vehicles (OLEV).

£20m of funding for 2020/21 has been allocated by OLEV to fund these on-street residential projects. Subject to applications meeting minimum technical specifications, local authorities can apply for grants to fund 75% of the capital costs required to procure and install on-street EV charging infrastructure, including associated dedicated parking bays, to

[13] https://www.gov.uk/government/publications/grants-for-local-authorities-to-provide-residential-on-street-chargepoints/grants-to-provide-residential-on-street-chargepoints-for-plug-in-electric-vehicles-guidance-for-local-authorities

meet residential needs. The guidance suggests applications will vary but not be greater than £6,500 per charge point, although applications greater than £6,500 but no more than £7,500 will be considered on a case-by-case basis. Local authority applications would not amount to more than £100k per project.

Implications for on-street EV charging in B&NES

The availability of this funding could enable B&NES to increase on-street charging infrastructure within the local authority, in areas that need it most with reduced financial burden.

Appendix B. EV charging case studies

Waltham Forest

Waltham Forest has produced an Electric Vehicle (EV) Charging Point Strategy for 2018 – 2022. It proposes varied types of charging infrastructure, operating at different speeds, for a range of needs.

Lamp post charging points

A lamp post can be used to accommodate a 3kW charging point in a residential area, which is the location in which most charging occurs. Fully charging at 3kW generally takes 7 to 8 hours, which allows for charging overnight. Lamp post charging addresses the challenge of charging vehicles when owners do not have access to off-street parking.

Lamp post chargers tap into the existing power network created for street lighting and are either integrated into the lamp post itself or attached to it. This makes them less expensive then alternative floor mounted units and they do not add to street clutter, assuming existing lamp posts are present. They are limited to 3kW as they are linked to the existing power grid. Lamp post chargers are most suited to when the existing lamp posts are situated at the front edge of the pavement. If they are situated towards the back of the pavement, and trailing cables would therefore introduce a trip hazard, a bollard sized floor mount with the connectors for charging could be placed at the front of the pavement with the power drawn from the lamp post using underground cables. This would, however, add to street clutter.

The optimal use of lamp posts as charging points requires multiple numbers of them on each street and appropriately spaced out to ensure residents are always able to access a charging point. A Traffic Regulation Order (TRO) may be needed to ensure the spaces next to lamp post charging points are kept free from non-electric vehicles. In order to be suitable for use as a charging point, a lamp post must adhere to a prescribed standard of earthing, increase the fuse size to cope with the extra energy usage and introduce metering on an otherwise unmetered energy supply. An example of a lamp post charging point is shown in Figure B-1.

Figure B-1: Lamp post charging point

Waltham Forest aims to introduce 60 lamp post charging points, in clusters of 2 or 3, between 2018 and 2022.

Floor mounted charging points

Standard 7kW-22kW floor mounted charging points are the most widely available type of charger across London and are suitable for most electric vehicles. Due to their small size (same as a bollard) these can be installed in public on-street locations. Fully charging generally takes 3 to 4 hours.

These generally have dedicated EV parking bays, with signage indicating the maximum stay. This ensures that EV owners can access the charging points and that they vacate the space once charged (due to the maximum stay restrictions) to open the space up for another EV user. Users need to set up an account as members of the charging network the charging point is connected to, which enables a user to pay via an RFID card or a smartphone app.

Waltham Forest aims to introduce 120 standard floor mounted charging points, with 2 charging point bays per location, between 2018 and 2022.

An example of a floor mounted bollard style charging point is shown in Figure B-2.

Figure B-2: Floor mounted bollard charging point

Rapid charging points

Rapid 50kW chargers can charge a vehicle in less than an hour, making them vital for long distance travel and taxi drivers. Due to their larger size, these chargers are only suitable in off-street locations, such as car parks, and often form part of a 'hub' of 5 or more charging points. They otherwise operate in the same way as the 7kW-22kW Floor Mounted charging points.

Waltham Forest aims to introduce 20 rapid charging points between 2018 and 2022.

An example of a rapid charging point is shown in Figure B-3.

Figure B-3: Rapid charging point

Oxford City Council - electric vehicle charging

Oxford City Council carried out a trial of five different on-street EV charging technologies in 2018, including lamp post chargers, three types of bollard chargers and a home charger coupled with a channel (often utilising existing storm drain channels) to allow the cable to be trailed across the footpath.

Criteria and evaluation

The criteria used to evaluate the performance of the charging technologies were as follows:

- *Ease of access* - based on proximity of the charger to the resident's home, availability of one or more dedicated parking bays and ease of parking
- *Ease of use* - Based on the user friendliness of the cable, installation interface and smartphone app
- *Installation footprint* - measure of how seamless the technology is integrated into the streetscape, in terms of risks to vehicles and other street users as well as aesthetics
- *Robustness* - measure of the reliability of the equipment and resilience to vandalism and minor collisions
- *Data and billing* - based on if the usage data and billing is accurate, quick and easy to understand and access (assessed from the perspective of interviewees)
- *Maintenance and repair* - measured by the ease and speed the technology can be repaired, how easy it is for users to report faults and the ability to see which alternative charges are operational
- *Price* - based on the cost of charging (£ per kWh plus connection fee), relative to other charging options, fossil fuels and electricity in one's home
- *Speed of charging* - assessed by comparing reported power outputs, with actual charging data from the trial
- *Utilisation* - refers to the extent to which a charging point is used over a period of time
- *Adoption capacity* - the potential for adoption by new or extra users, determined by the number of ports available, interoperability and whether the location of the installation restricts access and use
- *Neighbour complaints* - based on the frequency with which users and non-users in the vicinity of an installation raise objections with the local council and the nature of the complaints
- *Commercial sustainability* - based on the extent to which there is a business case for sufficient profit to be made by manufacturers and operators

Table B-1 summarises the evaluation scores for each type of technology, with 1 being very poor / low and 5 being very good / high.

Table B-1: Criteria evaluation

Criteria	Lamppost charger	Bollard style chargers			Home charger
	Ubitricity	Chago station	EVolve E-post	Zeta Smartscape	APT
Ease of access	4	5	5	5	2
Ease of use	4	3	4	4	3
Installation footprint	5	2	2	2	3
Robustness	4	2	5	1	4
Maintenance and repair	4	2	4	2	3
Price	3	4	4	4	5
Data and billing	4	4	4	5	5
Speed of charging	4	4	4	4	5

Criteria	Lamppost charger	Bollard style chargers			Home charger
	Ubitricity	Chago station	EVolve E-post	Zeta Smartscape	APT
Utilisation	4	3	3	2	5
Adoption capacity	2	5	5	5	1
Neighbour complaints	4	1	1	1	5
Commercial sustainability	4	1	1	1	2
Total score	46	36	42	36	43

The lamppost charger scored the best overall, followed by the home charger. All three of the bollard style chargers scored lowest, with the EVolve E-post the highest out of these.

The criteria where both the lamppost and home chargers scored the lowest is in adoption capacity. For the lamppost charger, users need to buy a Smart Cable costing £199 which may be a barrier to wider adoption. Existing lamppost placement may also constrain implementation, and those within controlled parking zones will limit visitor usage. For the home chargers, there is a very limited potential for wider adoption due to the private nature of the installation.

The adoption capacity is where the bollard style chargers excelled, which each achieving the highest possible score. However, they all received numerous neighbour complaints relating to the dedicated parking bays increasing parking pressure and restricting access to shops and services. Complaints were also made in relation to the time taken to connect to the electricity supply and due to periods of breakdown. The bollard style chargers also scored very poorly for commercial sustainability, due to high costs of installation and low utilisation.

Signage

Where a dedicated parking bay for EV charging have been put in place, a sign has been installed to explain the rules associated with its use, as shown in Figure B-4.

The sign stipulates that the use of the space from 08:00 to 18:30, Monday to Saturday, should be limited to 3 hours. It can be used by any EV owner, but only for charging. Outside of these hours, it should be used only for charging, and only by permit holders.

This is a complex set of rules, which was misinterpreted or ignored by both trial participants and local residents in several instances. Most commonly, it was assumed that outside the restricted hours the space can be used by non-EV permit holders.

The size of the sign was also a cause for concern. In a conservation area, trial participants declined the option of having a dedicated bay due to the size and appearance of the sign.

Figure B-4: Official sign for dedicated parking bay with bollard style chargers

Appendix C. EV on-street charging point request proforma template

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Bath & North East Somerset Council

CLIMATE EMERGENCY AND SUSTAINABILITY

This Forward Plan lists all the items coming to the Panel over the next few months.

Inevitably, some of the published information may change; Government guidance recognises that the plan is a best assessment, at the time of publication, of anticipated decision making. The online Forward Plan is updated regularly and can be seen on the Council's website at:

http://democracy.bathnes.gov.uk/mgPlansHome.aspx?bcr=1

The Forward Plan demonstrates the Council's commitment to openness and participation in decision making. It assists the Panel in planning their input to policy formulation and development, and in reviewing the work of the Cabinet.

Should you wish to make representations, please contact the report author or, Democratic Services (). A formal agenda will be issued 5 clear working days before the meeting.

Agenda papers can be inspected on the Council's website and at the Guildhall (Bath), Hollies (Midsomer Norton), Civic Centre (Keynsham) and at Bath Central, and Midsomer Norton public libraries.

Ref Date	Decision Maker/s	Title	Report Author Contact	Director Lead
20TH JULY 2020				
20 Jul 2020	**Climate Emergency and Sustainability Policy Development and Scrutiny Panel**	**Overview of the Renewal Programme Workstreams**	David Trethewey Tel: 01225 396353	Director Partnership & Corporate Services
20 Jul 2020	**Climate Emergency and Sustainability Policy Development and Scrutiny Panel**	**Liveable Neighbourhoods**	Chris Major Tel: 01225 39 4231	Director Environment
21ST SEPTEMBER 2020				
16TH NOVEMBER 2020				
ITEMS TO BE SCHEDULED:				
	Climate Emergency and Sustainability Policy Development and Scrutiny Panel	**Strategy for Tree Planting in BANES**	Simon De Beer Tel: 01225 477616	Director Environment

Ref Date	Decision Maker/s	Title	Report Author Contact	Director Lead
	Climate Emergency and Sustainability Policy Development and Scrutiny Panel	**Partial Review of the Local Plan (consultation on policies)**		Director Development and Public Protection
	Climate Emergency and Sustainability Policy Development and Scrutiny Panel	**Littering Review (progress report)**	Pam Jones Tel: 01225 394352	Director Environment
	Climate Emergency and Sustainability Policy Development and Scrutiny Panel	**Discovery Card Review**	Stephen Bird Tel: 01225 477750	Director of Economy & Growth
	Climate Emergency and Sustainability Policy Development and Scrutiny Panel	**Air Quality Action Plan for Farrington Gurney and Temple Cloud**	Cathryn Brown Tel: 01225 477645	Director Development and Public Protection

Ref Date	Decision Maker/s	Title	Report Author Contact	Director Lead
	Climate Emergency and Sustainability Policy Development and Scrutiny Panel	**Bath Quays North Regeneration**	John Wilkinson Tel: 01225 396593	Director of Economy & Growth
The Forward Plan is administered by **DEMOCRATIC SERVICES**: Democratic_Services@bathnes.gov.uk				