

Technical Note: Shortlisting for 20mph Zone Green Towns

This technical note summarises the outcome of a high-level desk-top qualitative sift to identify candidate Derbyshire market towns for a pilot study of the effectiveness of a town 20mph zone to tackle road casualties and increase active travel to foster a 'green town' approach. The qualitative sift has been supported by the creation of a Derbyshire Market Town Sustainability Matrix which is being developed by the Transport Strategy team to support the development of a new place-based approach for a new Local Transport Plan. The matrix provides easy comparison for a range of indicators including mobility, decarbonisation, infrastructure, collisions, finance, air quality and accessibility. The matrix will be extended further to enable a wider range of 'green town' dynamics to be considered.

Methodology

The methodology for a qualitative sift framework has been derived from the overarching manifesto commitment for 20mph zones: "Implementing 20mph zone trials in two towns in Derbyshire to promote clean air and cycling, making them "Green Towns." Further strategic fit granularity for promoting clean air and increased active travel has been extracted from existing priorities, including:

- 1) Casualty reduction:
 - Car driver, motorcycle and work-related journeys.
 - Adult cyclists
 - Pedestrians
- 2) Increased participation in walking and cycling by closing the gaps in participation and reducing health inequalities (Draft D2N2 LCWIP/ Derbyshire Cycle Plan).
- 3) Reduce the health impact of poor air quality for the people of Derbyshire (Derbyshire and Derby Air Quality Strategy 2020-2030)

The qualitative sift methodology has focussed on selecting Derbyshire Market Town Sustainability Matrix indicators which can be compared to identify candidate locations that are more likely to provide robust study outcomes for the wider adoption of 20mph zones. This methodology has therefore focused on locations where levels of casualties and number of people travelling to work by active travel modes are currently higher than the Derbyshire average and where there are higher levels of air pollutants associated with the road network. Consequently, it should be noted that whilst the methodology has incorporated a degree of consideration to where benefits might be maximised, such as propensity to walk and cycle, it has not attempted to select the locations that could be

future priorities for a green town approach to encourage take up of active travel where this is currently low. It should also be noted that a qualitative comparative approach at town scale is considered a more appropriate methodology to provide a rapid assessment of potential locations rather than seeking to develop a more formulaic approach that would deliver the same outcome.

Sustainability Matrix Indicators

Nine sustainability matrix indicators linked to strategic fit priorities for casualty reduction, increased active travel and poor air quality have been examined to identify four potential candidate Derbyshire market towns. The qualitative sift has identified the towns where transport trends are aligned to these indicators to a greater extent than other Derbyshire market towns and where there may be best alignment for 20mph zones to support casualty reduction and a green town approach for active travel. Other locations which have been considered under each of the indicators are also set out to provide transparency in selection of pilot locations.

Sustainability Matrix Indicator	Long Eaton	Buxton	Chesterfield	Ilkeston	Other towns
1. Proportion of employees travelling to work by cycle (2011 Census)	Highest proportion of cycle to work journeys in Derbyshire (5%).	1% of journeys to work undertaken by cycle.	1% of journeys to work undertaken by cycle.	Joint second highest proportion of cycle to work journeys (2%)	Alfreton, Heanor, Ilkeston, Melbourne, New Mills and Whaley Bridge (2%).
2. Proportion of employees travelling to work by walking (2011 Census)	10% of journeys to work undertaken by walking.	Second highest proportion of walking journeys to work in Derbyshire (22%).	13% of journeys to work undertaken by walking.	13% of journeys to work undertaken by walking.	Bakewell (26%), Alfreton (19%), Ashbourne (19%) and Matlock (17%).
3. Proportion of employees that live and work in the town. (2011 Census)	34% of people live and work in the town.	Highest proportion (64%) of people living and working in the town, demonstrating good potential for modal shift for short journeys.	Second highest proportion (63%) of people living and working in Chesterfield, demonstrating good potential for modal shift.	43% of people living and working in the town, demonstrating good potential for modal shift for short journeys.	Ashbourne (56%), Bakewell (55%) and Matlock (52%).
4. Total number of collisions (previous 3 years)	2nd highest total number of collisions in a Derbyshire town (146).	6 th highest total number of collisions in a Derbyshire town (56).	Highest total number of collisions in a Derbyshire town (263)	Third highest total number of collisions in a Derbyshire town (121).	Swadlincote (101) and Ripley (67).

Sustainability Matrix Indicator	Long Eaton	Buxton	Chesterfield	Ilkeston	Other towns
5. Proportion of collisions involving a pedestrian or cyclist	Fourth highest proportion of collisions involving a pedestrian or cyclist (58%).	Fifth highest proportion of collisions involving a pedestrian or cyclist (57%).	31% of collisions involving a pedestrian or cyclist.	45% of collisions involving a pedestrian or cyclist.	Bakewell (71%), New Mills (62%) and Wirksworth (60%).
6. Number of collisions involving a cyclist (last three years)	Highest number of collisions involving a cyclist (51)	11 collisions involving a cyclist.	Second highest number of collisions involving a cyclist (30)	Third highest number of collisions involving a cyclist (20).	Swadlincote (15), Ripley (13)
7. Number of collisions involving a pedestrian.	Third highest number of collisions involving a pedestrian (34)	Fifth highest number of collisions involving a pedestrian (22)	Highest number of collisions involving a pedestrian (51)	Second highest number of collisions involving a pedestrian (35).	Swadlincote (24)
8. Declared or pending Air Quality Management Area (AQMA)	AQMA associated with M1 revoked in January 2022.	HPBC currently monitoring A6 Fairfield Road, Buxton.	AQMA declared: associated with A619 Brimington.	No current AQMA declarations.	Glossop (A628/A57), Ashbourne (A515).
9. Households within proximity (50m) of road >25 um average annual mean NO2	Fourth highest number of households where pollution levels are potentially higher but not necessarily exceeding National thresholds (204)	Third highest number of households where pollution levels are potentially higher but not necessarily exceeding National thresholds (361)	Highest number of households where pollution levels are potentially higher but not necessarily exceeding National thresholds (830)	Second highest number of households where pollution levels are potentially higher but not necessarily exceeding National thresholds (437)	Ripley (131)

Deliverability

All four candidate towns are considered to be of a size of town that would provide an opportunity to review the effectiveness of 20mph zones at a market town scale. All candidate locations either have existing funding programmes underway or recently completed to support a shift in transport sustainability and could support the delivery of town wide 20mph zones. Long Eaton is currently developing active travel programmes under both the Town Deal programme and Transforming Cities project. Buxton has several sustainability programmes in development, including White Peak Loop extension, Buxton Town Travel Plan, Future High

Streets Fund and rural mobility hub pilot. Chesterfield has recently been the focus for pedestrian and cycle route extensions and improvements under the Local Growth Fund and a current Active Travel Plan Fund project. A new rail station has opened in Ilkeston and has been supported by a town-wide programme of cycle and pedestrian improvements introduced via the Local Growth Fund programme.