
Constraints and comparison of opportunities around Bourne

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As part of the evidence base for the preparation of the South Kesteven Local Plan 2011 – 2036 (SKLP), Capacity and Limits to Growth Studies were produced for Grantham and Stamford, but not Bourne given the level of existing commitments already identified at the settlement (notably Elsea Park).

This report does not seek to replicate those studies, but does provide higher level commentary in relation to Bourne on key considerations of those studies, namely:

- Environmental constraints;
- Transport and accessibility;
- Landscape and topography; and
- Heritage considerations.

In summary, this report demonstrates that:

- Opportunities to the east and north east of Bourne should be discounted due to their higher risk of fluvial flooding;
- Opportunities other than to the east of Bourne should be preferred due to their lower Agricultural Land Classification;
- Bourne Wood limits opportunities for new development to the northwest of the town;
- Bourne's setting relative to the Kesteven Uplands to the west limits opportunities for growth in that direction; and
- The Math and Elsea Woods SSSI limits development opportunities due south of the town.

Turning then to a consideration of the remaining opportunities to the north and to the southwest, it demonstrates that:

- Development to the south of the town would lead to additional vehicular trips principally on Raymond Mays Way which is a higher order road capable of and more suitable for accommodating additional traffic, whereas development to the north of Bourne would result in vehicular trips focused along the more sensitive main routes and junctions through the town centre (i.e. along the A15 North Road, North Street, South Street and South Road);
- There is a more sensitive relationship between Bourne and the settlements of Cawthorpe and Dyke to the north that is likely to be of greater susceptibility to change in the form of major development than the relationship between Bourne and Thurlby / Northorpe to the south;
- The landscape to the south of the town benefits from a more defined network of highway infrastructure, and landform that provides a framework that would guide development;
- The requirement to protect the setting of Car Dyke, South of Dyke Scheduled Monument to the north of the town is a further potential constraint to development to the northeast of the town; and
- Development within the Impact Risk Zones of Math and Elsea Woods SSSI would need to demonstrate that there would be no adverse impact on the SSSI (with access to other open space within a site and other recreational routes proposed as part of the South West of Raymond Mays Way site being part of this).

Environmental constraints

Flood risk

The National Planning Policy Framework 2021 (NPPF) makes clear at paragraph 161 that all plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property.

Fig. 1 below shows that land to the east and north east of Bourne is at higher risk of fluvial flooding. As it is possible to avoid these areas, they should be avoided in applying the sequential test. Fig. 2 shows surface water flooding risk which has been taken into account as part of the plan for development to the southwest of Raymond Mays Way and the wider area of surface water flood risk to the north of Bourne which would need to be taken into account as part of any plans for the development of that area.

Fig. 1 Flood Map for Planning

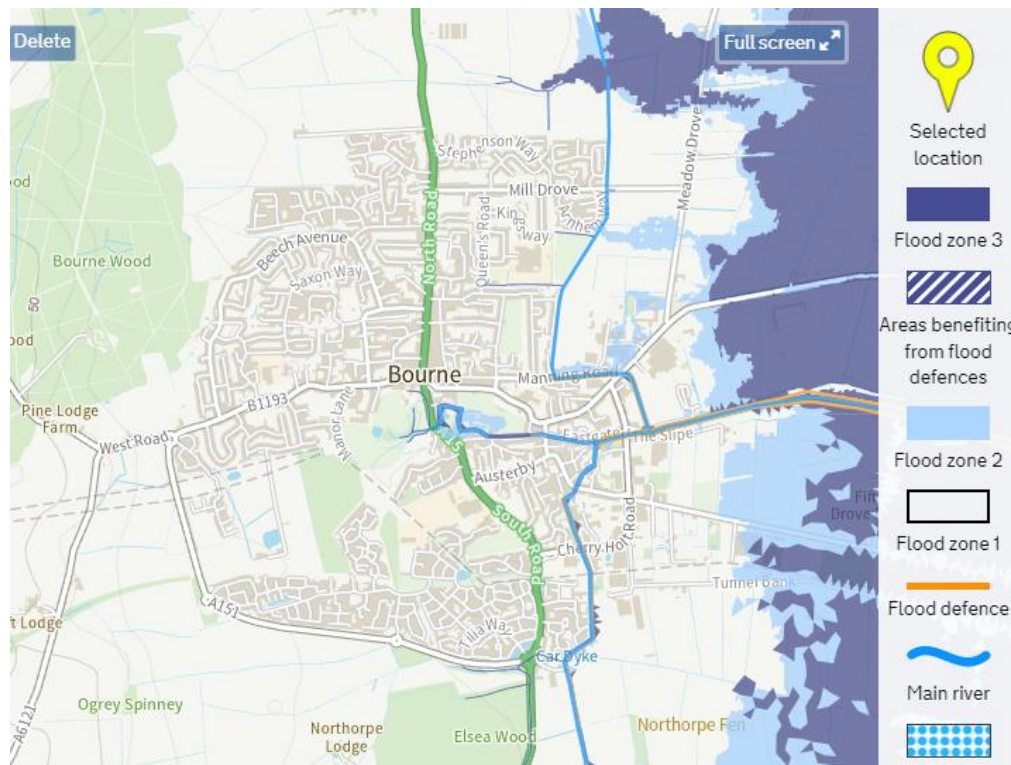
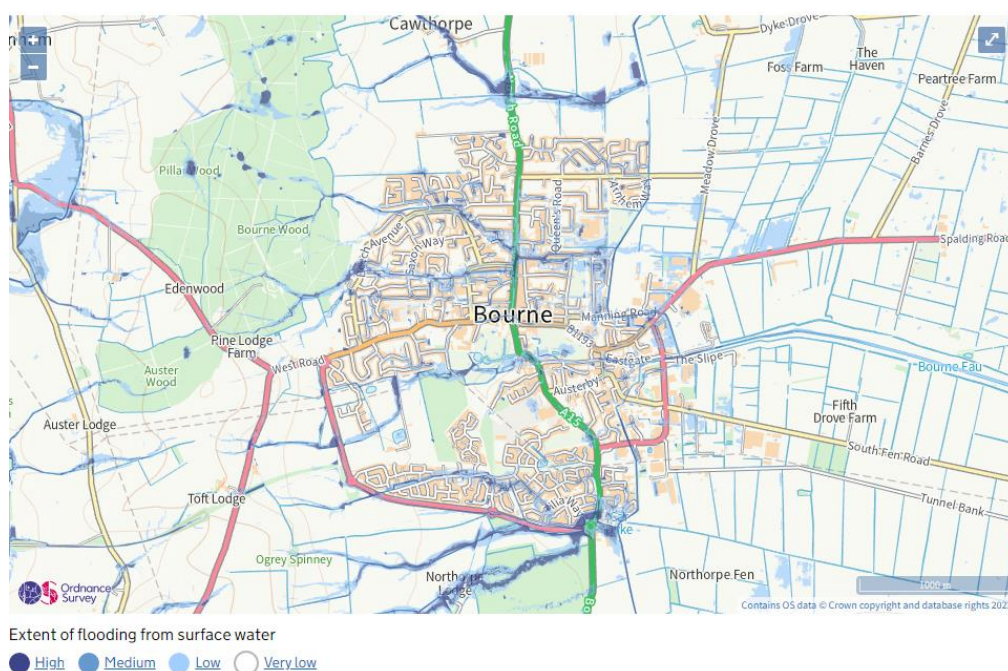


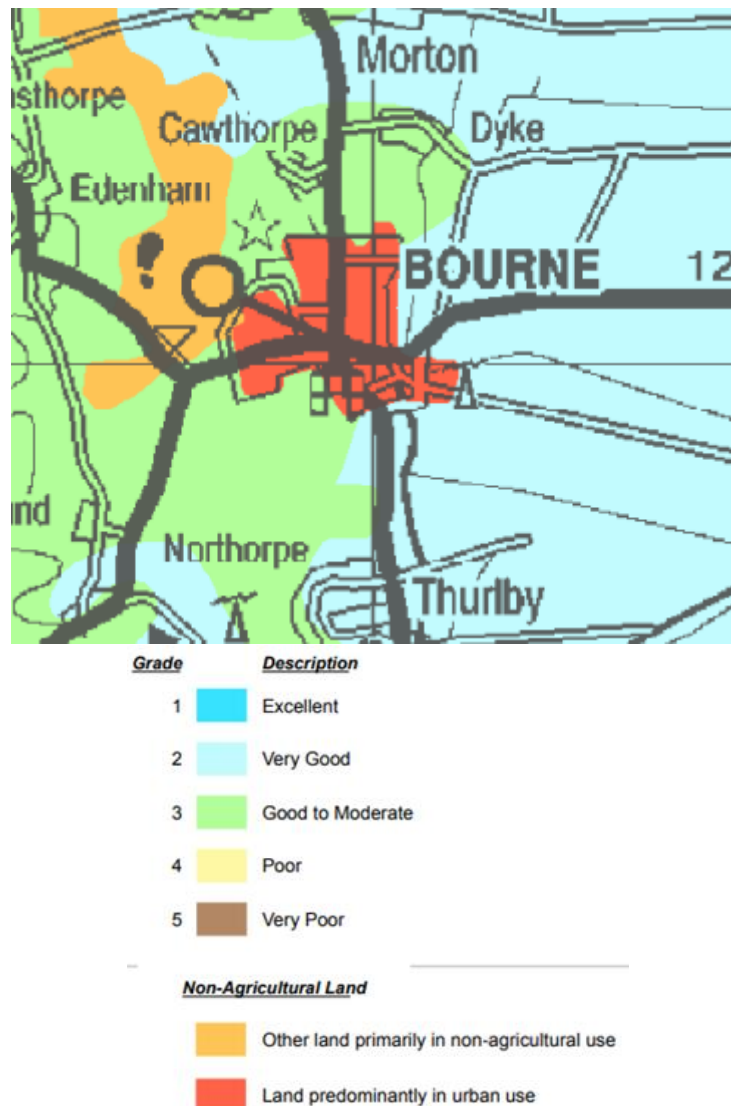
Fig. 2 Surface Water Flooding Risk



Agricultural Land Classification

Footnote 58 of the NPPF states that where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. As the extract from Natural England's Agricultural Land Classification Map East Midlands Region below (Fig.3) demonstrates, land to the east of Bourne is higher quality than land to the north and south, meaning land to the north and south should be preferred. The Other land primarily in non-agricultural use to the west and northwest of Bourne is Bourne Wood.

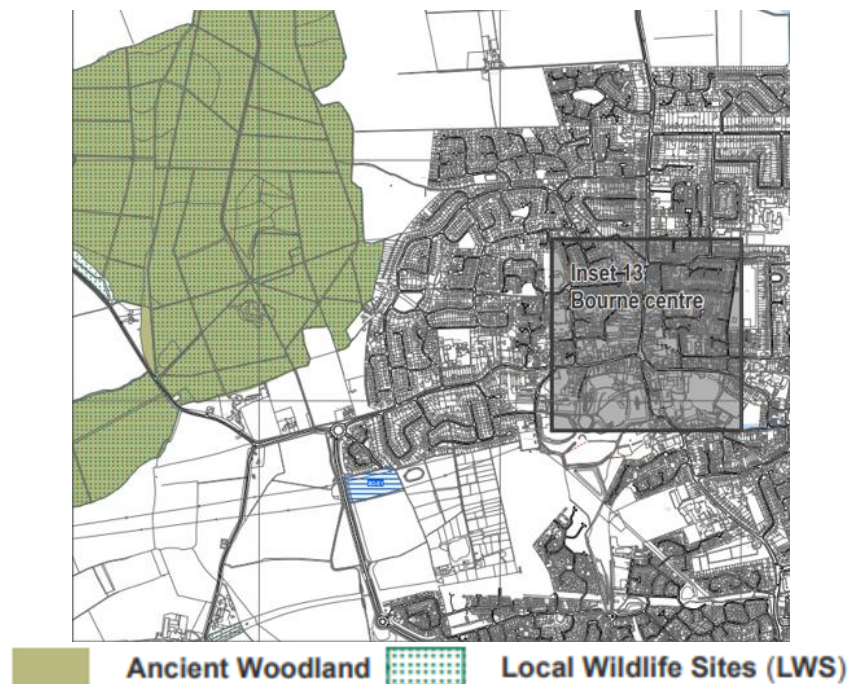
Fig. 3 Agricultural Land Classification



Nature Conservation Interests

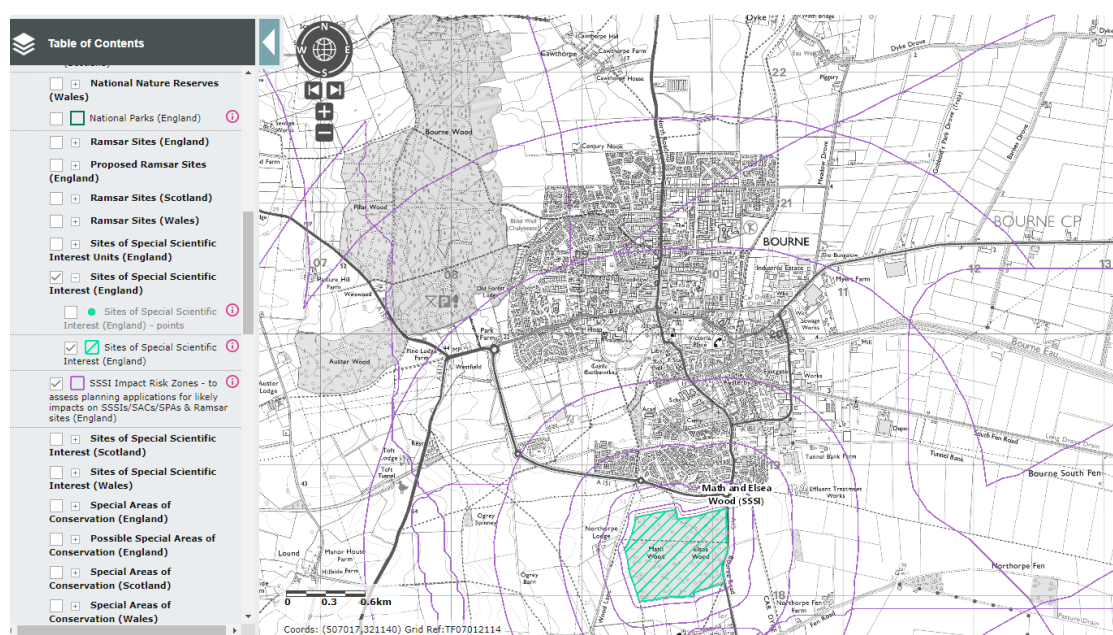
Bourne Wood was recorded on the Domesday Book with the woodland now owned by the Forestry Commission and managed by their executive agency, Forest Enterprise. This ancient wood and Local Wildlife Site to the northwest of Bourne – and shown on the extract from the SKLP Bourne Proposals Map below (Fig.4) – limits opportunities for new development to the northwest of the town, including on adjoining land to the woodland.

Fig. 4 Ancient Wood and Local Wildlife Site



The Site of Special Scientific Interest (SSSI) at Math and Elsea Woods is ancient semi-natural woodland with oak, ash and wych elm, and a rich ground flora. Paragraph 180 of the NPPF states that when determining planning applications, local planning authorities should apply the principle that development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. This limits development opportunities due south of the town and the SSSI is a consideration within the SSSI Impact Risk Zones. The SSSI and Impact Risk Zones are shown on Fig.5. Development within the Impact Risk Zones would need to demonstrate that there would be no adverse impact on the SSSI. The extensive on-site open space and new footpaths and cycle routes plugging into the existing Public Rights of Way network on land southwest of Raymond Mays Way would minimise any impact.

Fig. 5 SSSI and Impact Risk Zones



Transport and Accessibility

The Traffic Impact Assessment (TIA) prepared by mode (28 January 2022) and accompanying this note assesses the trip generation and distribution of a site SW of Raymond Mays Way and of a site north of Bourne.

Full details of the methodology are set out in the TIA but it uses the distribution of residential vehicular trips from the Census 'Journey to Work', journeys to each workplace destination have been routed using Google Maps 'Directions' function to assign the forecast trips onto the local highway network, the likely routes taken to and from the proposed developments (both the site SW of Raymond Mays Way and the site north of Bourne) have been assigned a 'Zone'. A total percentage distribution has then been given to each of the Zones identified.

Figures 6, 7 and 8 illustrate that the highest impact (+120 two-way trips) of the development traffic from the site SW of Raymond Mays Way will be focused along the arterial and periphery routes around the town centre, and outside of the more critical junction locations/corridor (i.e., West St/A15/Abbey Rd signalised junction). In particular, the largest levels of traffic will be routed along Raymond Mays Way, acting as a southern relief road/route for traffic heading to the south towards Peterborough. However, it is considered that Raymond Mays Way is a higher order road that is capable of and more suitable for accommodating additional traffic from the development proposals. In contrast, the Figures 9, 10 and 11 illustrate that the highest impact (+120 two-way trips) of the development traffic from a site to the north of Bourne would be focused along the main routes and junctions through the town centre (i.e. along the A15 North Road, North Street, South Street and South Road).

This corridor and its junctions along the extent are understood to be more sensitive to increases in traffic volumes (as noted in the Local Transport Plan 4 at paragraph 10.2: *"the town centre of Bourne continues to suffer from the effects of through traffic, particularly north-south traffic using the A15"*). By way of a comparison, when modelling competing site options of a similar scale (900 units), it is concluded that development on South West of Bourne would route c.30 two-way trips through the constrained town centre in peak times, opposed to c.200 trips if development was located to the north/east of Bourne.

Fig. 6 Distribution Zones and % - Land SW of Raymond Mays Way

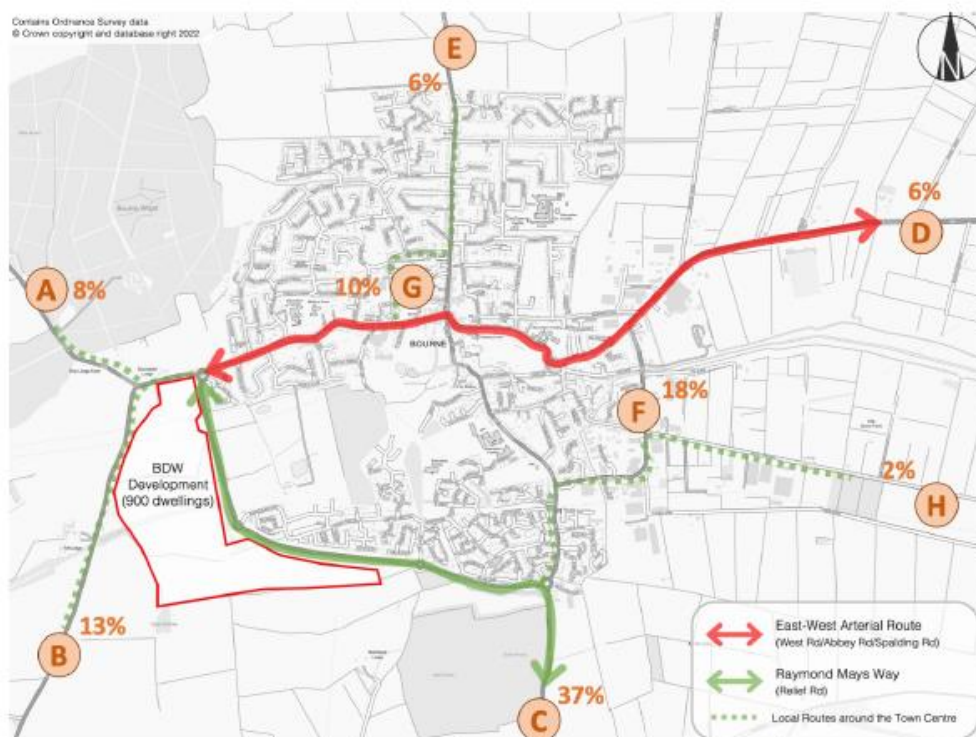


Fig. 7 Traffic Impact Assessment AM Peak – Land SW of Raymond Mays Way

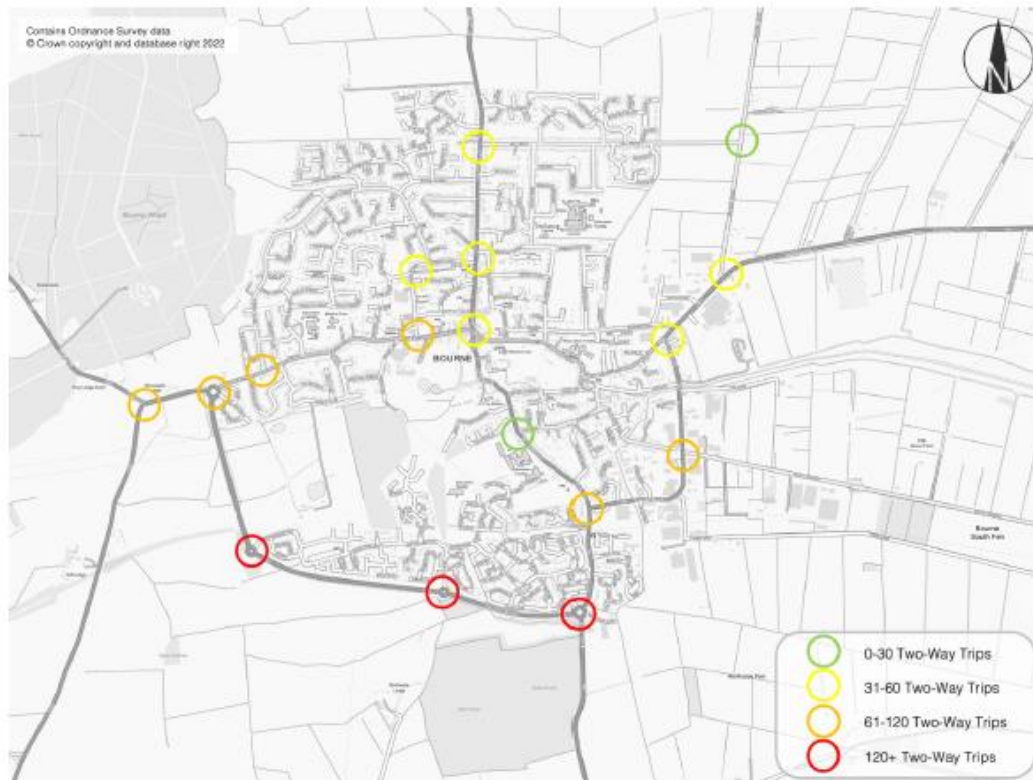


Fig. 8 Traffic Impact Assessment PM Peak – Land SW of Raymond Mays Way



Fig. 9 Distribution Zones and % - Land north of Bourne

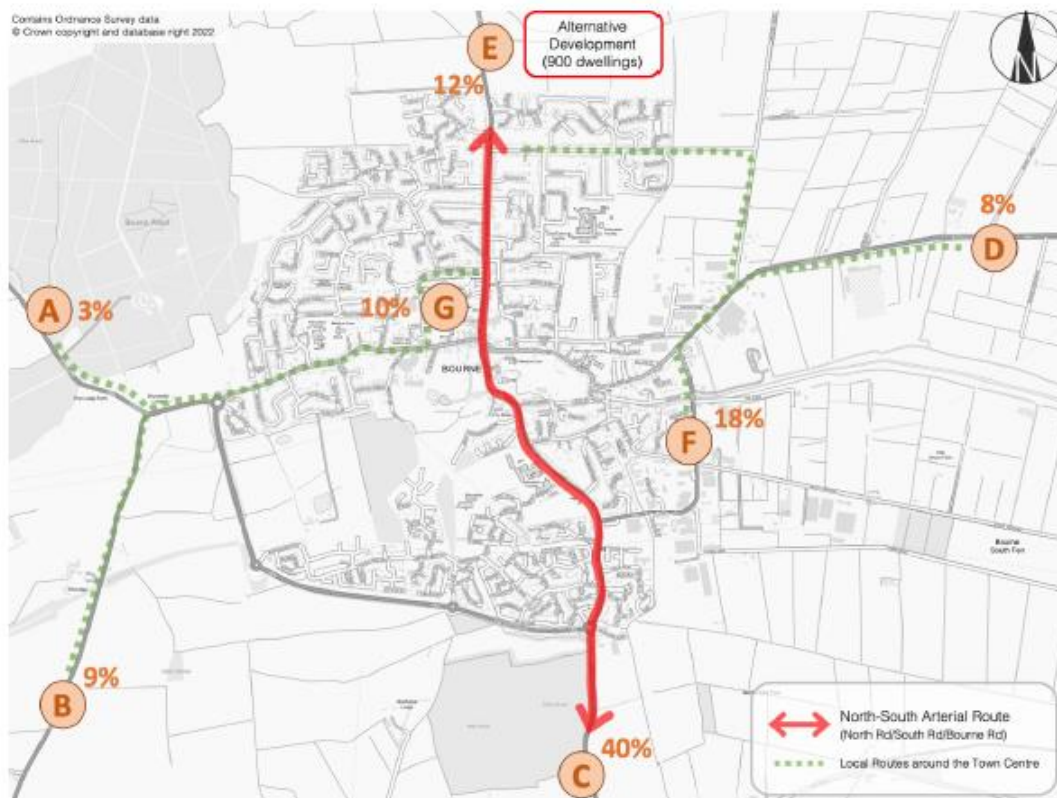


Fig. 10 Traffic Impact Assessment AM Peak – Land north of Bourne



Fig.11 Traffic Impact Assessment PM Peak – Land north of Bourne



Landscape and topography

Bourne is at the meeting of the Fen, Fen Edge and Kesteven Uplands Landscape Character Areas, as shown upon the extract from the South Kesteven Landscape Character Assessment January 2007 at Fig. 12 below.

As the Landscape Summary Report submitted alongside this report sets out, Bourne's setting relative to the Kesteven Uplands to the west – with the Uplands evident on the levels plan included as Fig. 13 below – limits opportunities for growth in that direction. Looking at opportunities to the north and south of the town it recognises the more sensitive relationship between Bourne and the outlying settlements of Cawthorpe and Dyke to the north that is likely to be of greater susceptibility to change in the form of major development when compared with the relationship between Bourne and Thurlby / Northorpe to the south. It also recognises that the landscape to the south of the town benefits from a more defined network of highway infrastructure, and landform that provides a framework that would guide development. Development to the south west of Bourne could be kept below the 35m contour and off the slopes rising towards the ridge. It would thereby protect the setting of the Kesteven Uplands, with the ridge also screening views of the development from the west.

Fig. 12 Landscape Character Areas

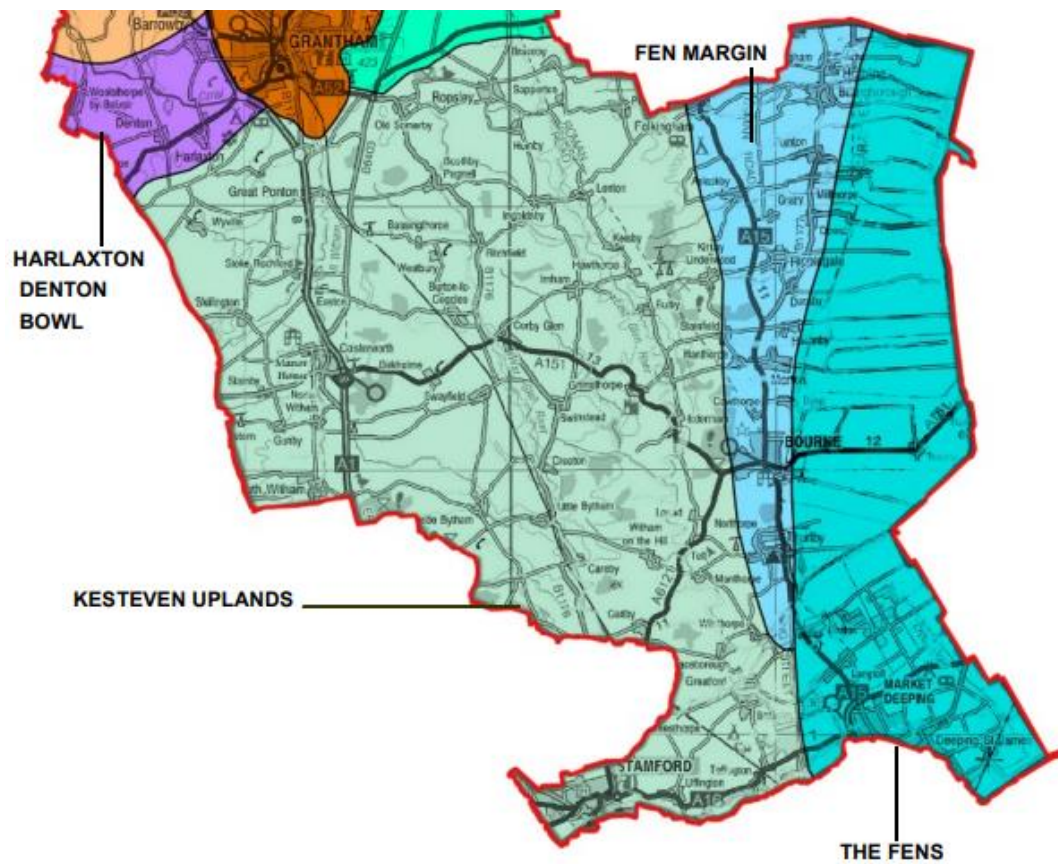
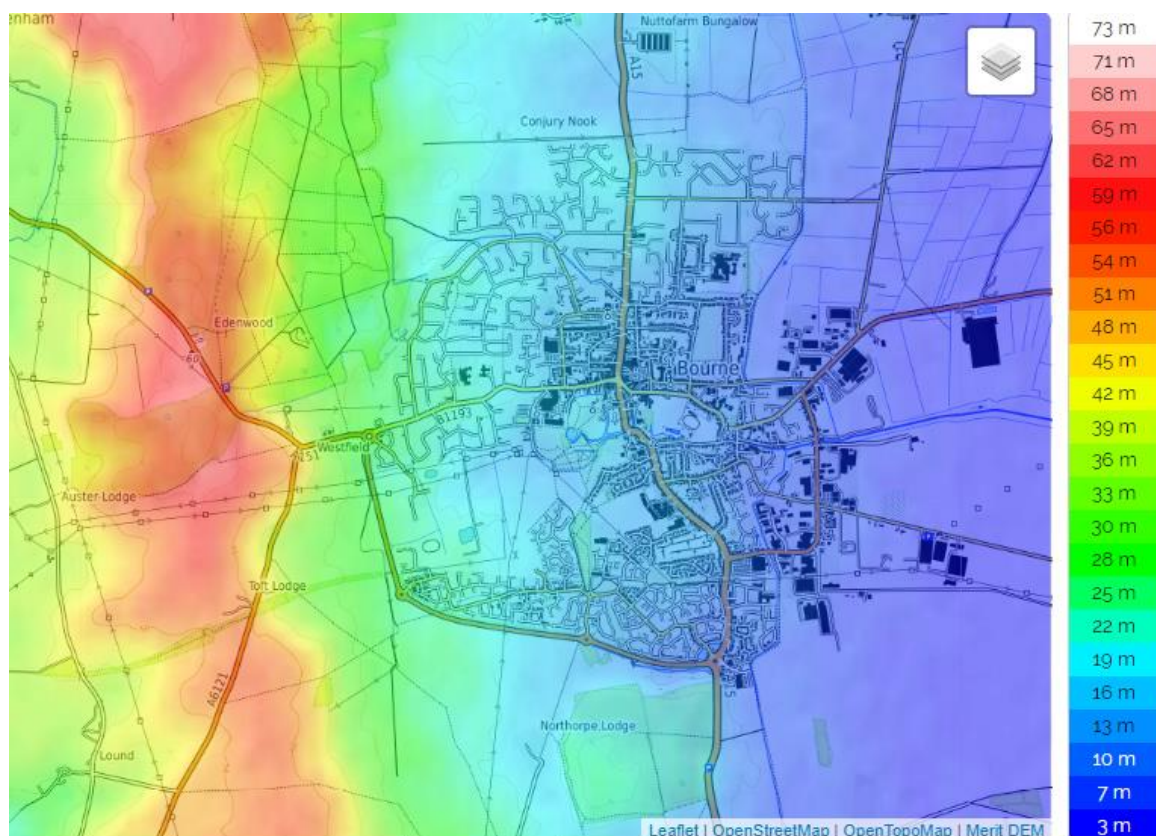


Fig. 13 Contours



Heritage considerations

Listed buildings – shown by blue triangles on Fig. 14 below – in the town are centred round the town centre and towards the east, with listed buildings also found in the villages of Cawthorpe and Dyke to the north of the town and Northorpe to the south. There are two Scheduled Monuments in/around Bourne. Bourne Castle Scheduled Monument in the middle of the town and Car Dyke, S of Dyke Scheduled Monument to the north of the town, with the requirement to protect the setting of the latter being a further potential constraint to development to the northeast of the town. Further, the historic Car Dyke acts as an eastern boundary to residential development at Bourne along its alignment where it is not designated as a Scheduled Monument.

Fig. 14 Listed Buildings and Ancient Monuments

