

TYPE 9: CHALK ESCARPMENTS

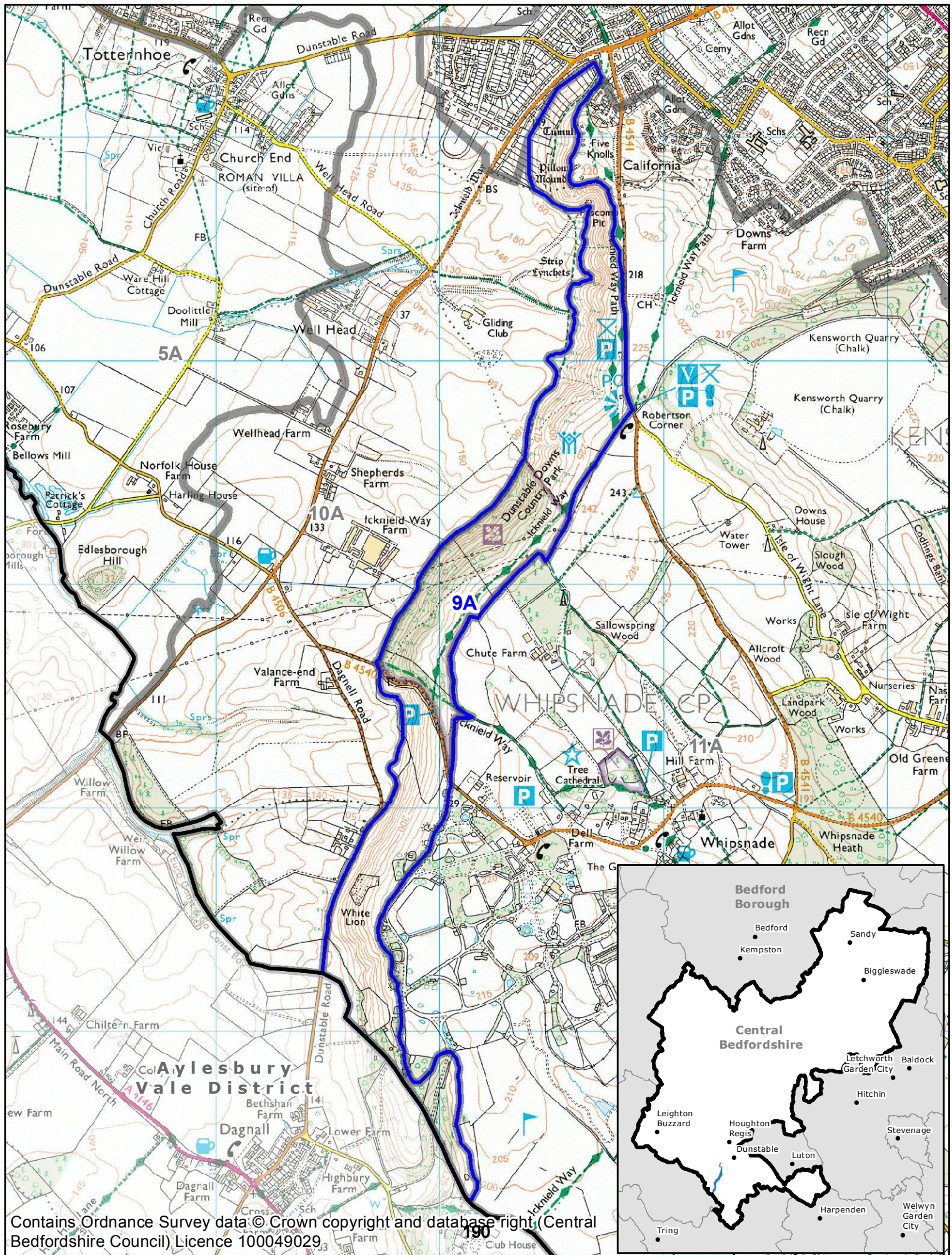
Key Characteristics

- Pronounced, steep-sided scarps with rounded crests and hills – extensive views.
- Much of the character type is designated an Area of Outstanding Natural Beauty (AONB).
- Some scarps have a uniform slope and straight profile whilst others having a convoluted, serpentine form.
- Underlying solid geology of Middle and Lower Chalk, giving rise to calcareous soils.
- Predominantly deciduous woodland extends across the scarp face.
- Mixed vegetation cover – a mosaic of woodland, unimproved grassland and scrub providing textural variation across the scarp face and along the ridgeline.
- A number of nationally important nature conservation sites (unimproved chalk downland).
- Numerous archaeological sites of national importance.
- Strong sense of exposure afforded by elevation and panoramic views across lower-lying adjacent landscapes.
- General absence of settlement although where development occurs it is consistently located at the foot of the scarp slopes.
- A focus for recreational activity with significant areas of land with public access.

Location and Boundaries

- 9.1 The *Chalk Escarpment* landscape type is found in five separate areas within the south of Central Bedfordshire. This is a distinct landscape type and as such boundaries are clearly defined - predominantly determined by striking landform change (the steep gradient of the scarp meeting the flat terrain at the base and crest of the slope). The topographic change is generally consistent with a change in surface geology. At the base of the escarpments the boundary line corresponds with a change from Lower Chalk to Totternhoe Stone and, at the top of the scarp slope, the boundary delineates the transition from a Middle to Upper Chalk (and Clay-with-Flints) geology.

9A: Dunstable Downs Chalk Escarpment



9A Dunstable Downs Chalk Escarpment

Location and Boundaries

- 9A.1 This is a dramatic west facing escarpment; its northern edge borders the town of Dunstable, extending south to the border with Buckinghamshire. The steep landform re-emerges within Central Bedfordshire to form the sloping sides of the *Gade Chalk Valley (12a)*. The scarp has a distinctly linear form, compared with the more convoluted character of other escarpments within the landscape type and has the greatest degree of recreational pressure of any of Bedfordshire's scarps. This escarpment separates the character area of the elevated *Whipsnade Chalk Dipslope (11a)* - the boundary marked by the prominent ridgeline, from the lower-lying *Totternhoe - Dunstable Downs Rolling Chalk Farmland* (forming the foothills of the scarp slope). The entire character area forms part of the Chilterns AONB.

Summary of landscape character: Key characteristics

- 9A.1.1 A large scale, prominent chalk scarp landscape forming part of the Chilterns Area of Outstanding Natural Beauty (AONB).
- 9A.1.2 The scarp has a linear form and a west facing, steep, uniform slope. Elevation ranges from 150 - 235m AOD.
- 9A.1.3 A mixed landscape of deciduous woodland cover, short grazed grassland and scrub.
- 9A.1.4 Important recreational resource (e.g. walking, riding, cycling, kite-flying) with excellent access links from the adjacent market town of Dunstable. Includes Dunstable Downs Country Park with its associated visitor facilities.
- 9A.1.5 The Icknield Way Trail and Chiltern Way run along a significant length of the ridgeline.
- 9A.1.6 Dramatic, long-ranging views to the west across the foothills (10a) to the flat, low-lying landscape of the Clay Vale (5a) and the Greensand Ridge beyond.
- 9A.1.7 The scarp forms the backdrop to the Totternhoe-Dunstable Downs Rolling Chalk Farmland and Clay Vales, at the foot of the slope. The ridgeline/skyline varies from open to tree-lined.
- 9A.1.8 Large White Lion carved into the chalk providing a distinct landmark feature.
- 9A.1.9 The vast majority of the scarp is designated as the Dunstable and Whipsnade Downs SSSI with surviving areas of unimproved chalk grassland.
- 9A.1.10 Belts of beech woodland occur along the foot of the slope, aligning the B4506.
- 9A.1.11 Wide, open skies frequently characterised by kites, small planes and gliders (the Grade II listed London Gliding Club is located on the adjacent foothills).
- 9A.1.12 Grazed by sheep as well as a number of species belonging to Whipsnade Zoo, including wallabies and bison.
- 9A.1.13 An important historic landscape containing a number of significant archaeological features including the Five Knolls burial mound (Scheduled Monument) at the crest of the scarp, pillow mounds (artificial rabbit warrens) and sunken ways.
- 9A.1.14 Continuous open character with an absence of solid field boundaries. An exception is the tall chain-link fencing surrounding Whipsnade Zoo.
- 9A.1.15 There is an absence of development with the exception of some buildings at Whipsnade Zoo visible on the skyline and Dunstable Downs visitor centre. Pylons cross the scarp, south of the Country Park.

Landscape Character Description

Physical and natural landscape

- 9A.2 *Dunstable Downs Chalk Escarpments* is the highest part (and forms the western edge) of the band of chalk defining the south of Central Bedfordshire. It is an instantly recognisable landscape with a dramatic scarp face, decorated with the White Lion chalk engraving. The prominent scarp has a highly distinctive character with a strong sense of exposure and commanding 'big-sky' views across the scarp foothills (10a) to the vale (5a) beyond. Exposure and views are two of its defining characteristics and the reason for its popularity and focus for recreation. The extensive downland landscape with its distinctive chalk grassland, scrub and woodland is a nationally important habitat (SSSI), while much of the landscape is also of historic significance. The land cover of the scarp varies between the open short grazed grassland and more enclosed areas of scrub and woodland – this balance varies with the extent of grazing with visual and ecological consequences.

Biodiversity

- 9A.3 This is a biodiversity –rich area with much of the extensive chalk downland landscape of the escarpment designated as an SSSI, with characteristic grazed chalk grassland and scattered and dense scrub. The area within Whipsnade Park is mostly open grassland with a history of uninterrupted grazing. In some areas scrub, hedges and secondary woodland have increased at the expense of chalk grassland resulting in a more enclosed wooded landscape.

Visual and perceptual character

- 9A.4 This character area has a strong sense of exposure and commanding 'big-sky' views across the scarp foothills (10a) to the vale (5a) beyond. Whipsnade Zoo, partially located on the scarp, attracts large visitor numbers and, with wild animals grazing the slopes, has a strong influence on overall character. For the most part, the Dunstable Downs have retained a strong rural, undeveloped character despite the pressures associated with recreation and the adjacent urban area of Dunstable.



Big sky views to the west



View of the escarpment from the rolling chalk farmland of character area 10a

Cultural pattern and historic character

- 9A.5 The light soils of the chalk downland areas were cleared for agriculture during the Neolithic period. The prominent open landscape of the chalk escarpment became a favoured location for the construction of burial mounds in the later Neolithic and Bronze Age, highly visible on the crest of the scarp. The "Five Knolls" is a scheduled group of earthwork barrows on the northern tip of Dunstable Downs, just above the top of the scarp overlooking the line of the prehistoric Icknield Way which follows the foot of the escarpment below. It falls on the boundary of the *Dunstable Downs (9A)* and the *Whipsnade Chalk Dipslope (11A)*, but is a significant landscape feature for both areas.
- 9A.6 The Downs were an important grazing resource for the parishes of Totternhoe, Eaton Bray and Studham. The sheep were taken up to the Downs for grazing and returned to be folded on the arable fields below, which would benefit from the manure. The movement of the sheep was facilitated by deep diagonal cut-ways constructed across the face of the scarp, which served to channel them in the right direction.
- 9A.7 Another medieval land-use in the area, also taking advantage of the grassland, was the keeping of rabbits. Pillow mounds (artificial rabbit warrens) were constructed on the top of the scarp to the south of the Five Knolls. Other earthworks along the face of the escarpment derive from localised small-scale quarrying.
- 9A.8 The steep scarp slope was used as back-drop for a military rifle range in Pascombe Pit, where the face of the scarp forms a 'bay' south of the Five Knolls. The Whipsnade Lion was created in the 1930s, and has become a distinctive historic feature in its own right.

Settlement pattern; built character

- 9A.9 There are no settlements on the Dunstable Downs. The buildings are associated with recreational land uses such as the landmark visitor centre at Dunstable Downs Country Park. The scarp is crossed by one rural lane - sunken and embanked within the chalk. More conspicuous is the double line of pylons which cut diagonally across the scarp.



The visitor centre at Dunstable Downs provides facilities for recreational walkers and visitors

Evaluation

Landscape Change

Past change	Potential future change
<p>Pylons which cut across the scarp and onto the chalk dipslope.</p> <p>Secondary woodland establishing on the unimproved chalk grassland.</p> <p>Buildings, infrastructure and recreation at the Dunstable Downs Country Park and development (including boundaries and animal grazing of escarpment slopes) of Whipsnade Zoo in the adjacent landscape character area.</p> <p>Views of the urban expansion of Dunstable.</p>	<p>Further scrub/ woodland encroachment, but also grassland management.</p> <p>Potential further development within Dunstable.</p> <p>Potential undergrounding of pylons.</p> <p>Increased recreational pressure e.g. parking.</p>

Key positive landscape features/ strategic sensitivities of the landscape

- 9A.1.16 Ecologically important areas of unimproved grassland and scrub vulnerable to loss as a result of woodland succession or changes in land use - a need for enhanced and sustained grazing management.
- 9A.1.17 Blocks of mature deciduous woodland which require appropriate management.
- 9A.1.18 Striking escarpment landform providing the setting and backdrop to the adjacent foothills and vale which is vulnerable to change in land cover or development.
- 9A.1.19 Upstanding prehistoric earthworks on the scarp crest, an unusual survival in the county.
- 9A.1.20 Earthworks along the length of the escarpment, providing evidence of the history of land use.
- 9A.1.21 The setting of the prominent white lion chalk carving which is a distinctive landmark feature.
- 9A.1.22 Perceptual/aesthetic qualities associated with the sense of elevation/wide open skies and openness/exposure.
- 9A.1.23 Open character created by the absence of enclosure and visible boundaries over much of the area, which gives a visual indication of the open character of common land before enclosure.
- 9A.1.24 Value as a recreational resource/green infrastructure (e.g. the Icknield Way Trail) for Dunstable/Luton and a potentially expanded urban area - sensitive recreational management will be critical to conserve the rural tranquil qualities.

Visual Sensitivity

- 9A.1.25 The striking escarpment landform which provides a dramatic setting to the foothills and clay vale beyond - and a prominent backdrop to views from these areas.
- 9A.1.26 Open skies and long range views which will be sensitive to large scale changes within the adjacent lower lying landscapes.
- 9A.1.27 The open undeveloped skyline with prominent earthworks, which would be sensitive to any form of further development both on the scarp top and tall development on the plateau part of the dipslope beyond. The ridgeline is particularly sensitive, particularly where it is absent of tree or scrub cover and forms a smooth, undeveloped skyline.

Landscape Strategy

The overall strategy is to **conserve** and **enhance** the landscape of the Dunstable Downs Chalk Escarpment (9a). The aim should be to conserve the dramatic landform and prominent views, the wealth of important historic and biodiversity features and its value as a recreational resource. Enhancement opportunities predominantly relates to improving its condition through appropriate landscape management.

Guidelines for New Development

- 9A.1.28 Conserve the largely undeveloped nature and rural character of the scarp. Future expansion of Dunstable should not impinge on the steep scarp slopes.
- 9A.1.29 Conserve the undeveloped ridgeline/skyline in views to the scarp. Note that the ridgeline is vulnerable to change not only on the scarp but also the plateau and dipslope (11a) beyond.
- 9A.1.30 Conserve the excellent access links to the scarp from the adjacent town of Dunstable.
- 9A.1.31 Conserve the clear views and visual relationship with the adjacent foothills and vale landscape beyond.
- 9A.1.32 Avoid further development of large vertical structures that interrupt the smooth lines of the scarp landform. Seek future opportunities for undergrounding or rerouting of the existing pylon line.
- 9A.1.33 Avoid development at the base of the scarp in order to conserve the dramatic change in landform and character.
- 9A.1.34 Further recreational /green infrastructure improvements including access and links between sites.
- 9A.1.35 Ensure conservation of the important ecological, historical and perceptual qualities.

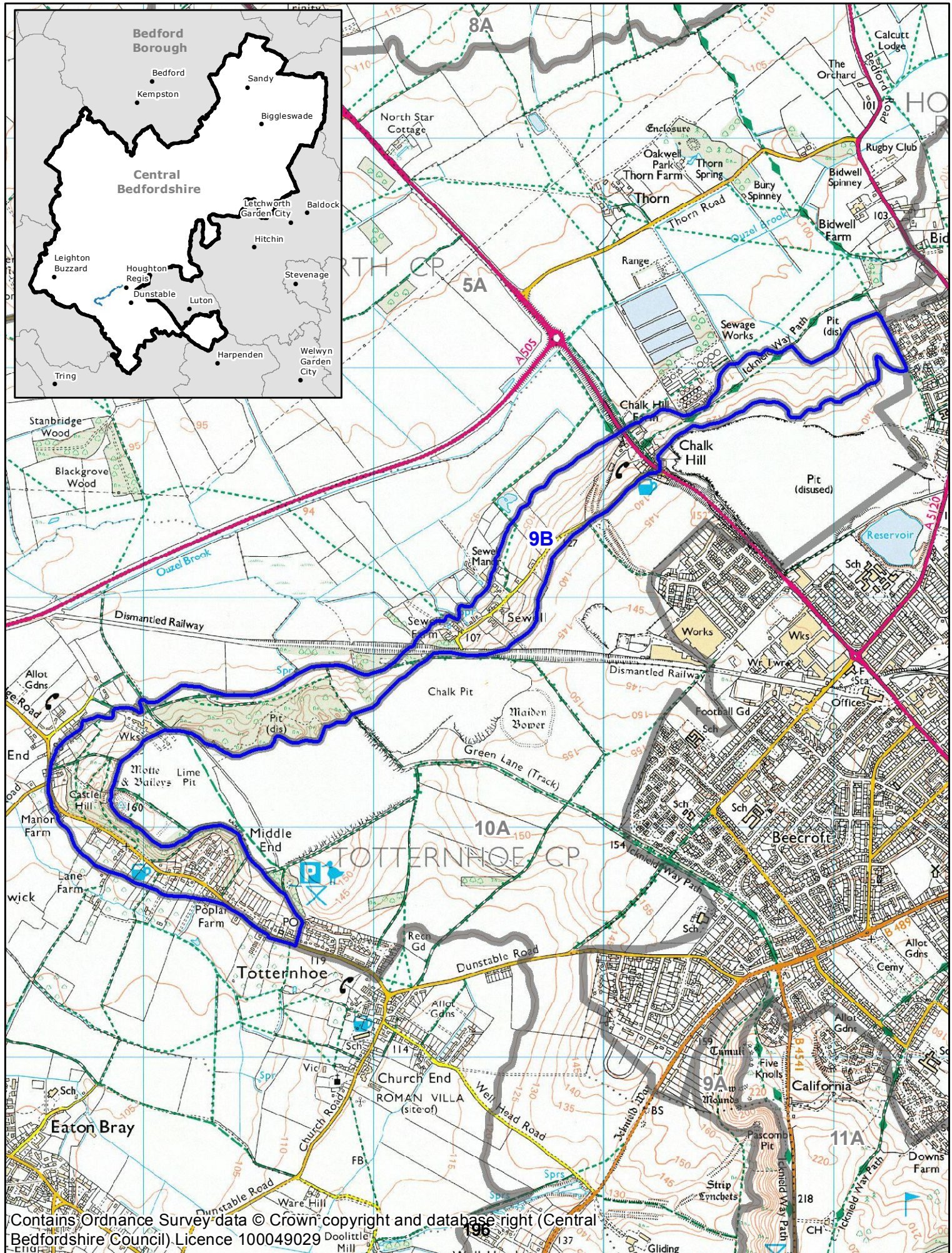
Landscape Management Guidelines

- 9A.1.36 Conserve the extent and quality of the areas of unimproved chalk grassland and scrub (of the Dunstable Downs and Whipsnade SSSI) - seek to restore grassland where it has been lost and maintain an appropriate balance of open grassland, scrub and woodland.
- 9A.1.37 Consider opportunities for chalk grassland restoration - to create new habitats and help buffer the SSSI - the area at the base of the escarpment adjoining areas of intensive arable farmland is a priority.
- 9A.1.38 Explore opportunities for the restoration/improvement of the eroded areas of grassland on the scarp face, which have been subjected to considerable visitor pressure.
- 9A.1.39 Conserve the beech woodland belts, aligning the B4506 that reduce the visual and audible impact of the road upon the scarp.
- 9A.1.40 Conserve the character of the roads that cross and align the base of the scarp (B4540 and 4506 respectively) and limit urbanising influences through widening/kerbing and ensure that traffic management measures are sympathetic to the rural character.
- 9A.1.41 Maintain the open character of the scarp, by deterring subdivision by visible boundaries.
- 9A.1.42 Conserve the Five Knolls barrow cemetery, medieval warren mounds and linear cut-way earthworks; monitor visitor pressure and erosion.
- 9A.1.43 Conserve the White Lion chalk carving through appropriate management.

Also refer to the following documents:

- South Bedfordshire Green Infrastructure Plan: Network Area 2.
- Chilterns AONB Management Plan and Design Guide.

9B: Totternhoe Chalk Escarpment



9B Totternhoe Chalk Escarpment

Location and Boundaries

- 9B.1 The *Totternhoe Chalk Escarpment* (9b) is located to the north west of Dunstable and west of Houghton Regis with the urban area adjoining the eastern edge of the scarp. The scarp represents the edge of the chalk and separates the landscape of the *Eaton Bray Clay Vale* (5a) (to north and west) from the chalk dipslope landscape of the *Dunstable Downs Rolling Chalk Farmland* (10a) to the south. This scarp is geographically separate from the other *Chalk Escarpments* and is distinguished from them by its less dramatic landform, the greater amount of development on the scarp (residential and industrial) and a more varied land use. It is the only chalk escarpment in the unitary authority not included in the Chiltern Hills AONB.

Summary of landscape character: Key characteristics

- 9B.1.1 The lowest lying of the chalk escarpments in Central Bedfordshire but exhibiting distinctive scarp form and characteristics.
- 9B.1.2 Chalky soils and sub-soils with a hard band of chalk or clunch (Totternhoe Stone) occurring on the scarp (the construction material of many churches in the area).
- 9B.1.3 Varied land use/land cover comprising arable and pastoral farmland, woodland, settlement and industrial activity, creating a mosaic of colour and texture.
- 9B.1.4 The longest face of the scarp has a northwest orientation, running from the edge of Houghton Regis to Castle Hill, where there is a prominent spur and the scarp changes direction - having a southwest aspect.
- 9B.1.5 Historic settlement along the lower scarp slopes including the village of Totternhoe (on the southwest facing slope) and the smaller settlements of Sewell and Chalk Hill (on the northwest facing slope).
- 9B.1.6 Totternhoe village has a linear form with traditional building materials comprising red-brown brick, timber frames, weatherboarding and slate and clay tiles.
- 9B.1.7 Totternhoe Castle, on the end of the promontory, is a motte and bailey castle of dramatic proportions and is a significant landscape feature.
- 9B.1.8 Disturbed by quarrying for stone and chalk - with the small scale historic quarries at Totternhoe Knolls now of nature conservation and geological interest.
- 9B.1.9 Influenced by industry and utilities due to the presence of the sewage treatment works, east of Chalk Hill, industry located on the site of the former lime works north of the village of Totternhoe.
- 9B.1.10 Exposed chalk face where the A5 road has cut through the scarp at the Chalk Hill.
- 9B.1.11 Numerous unsurfaced green lanes are a particular feature of the area.
- 9B.1.12 The foot of the scarp contains numerous springs such as the Shirrel spring below Sewell, which is a petrifying spring and has a history of use for votive offerings.
- 9B.1.13 A concentration of deciduous woodland occurring over the disused pit (east of the cement works) as well as surrounding Totternhoe village.
- 9B.1.14 Recreational value (and associated pressures) with a number of rights of way and green links crossing the scarp (including the Icknield Way Trail, Chiltern Way and National Cycle Route 6) as well as lining the base of the slope and ridgeline.
- 9B.1.15 Supports large areas of nationally important remnant unimproved chalk grassland, including Totternhoe Chalk Quarry SSSI and Totternhoe Knolls SSSI.

- 9B.1.16 Horse paddocks present with a number of fields divided by temporary fencing for grazing/exercising plots.
- 9B.1.17 Views of the Dunstable Downs Chalk Escarpment (9a) as well as the prominent hill of Ivinghoe Beacon in the adjacent county of Buckinghamshire.
- 9B.1.18 Dismantled railway line (running from Leighton Buzzard to Luton) cuts through the scarp.
- 9B.1.19 The escarpment forms a backdrop, and offers some degree of enclosure, to the adjacent Eaton Bray Clay Vale (5a).

Landscape Character Description

Physical and natural landscape

- 9B.2 Totternhoe is the lowest of Bedfordshire's chalk escarpments but it is still a prominent landform feature with the steep north west facing slope extending from Houghton Regis to form a prominent spur at Castle Hill before doubling back as a south west facing slope. The dual orientation provides extensive panoramic views across the adjacent *Clay Vale* and beyond to the *Clay Hills* and southwards to the dominant chalk landscapes of *Dunstable Downs* and Ivinghoe Beacon (in Buckinghamshire).
- 9B.3 The scarp has a varied land use and as such a less consistent and more complex visual character than other chalk scarps in Central Bedfordshire. Agricultural land is a mix of arable fields and pasture, including a number of horse paddocks. Totternhoe Knolls, managed by the National Trust in partnership with the Wildlife Trust, is an important resource and includes a mix of chalk grassland, beech woodland plus the dramatic Motte and Bailey Castle earthworks. Quarrying was a major feature of the scarp and the legacy of former pits is a feature of the landscape today. Totternhoe Quarry conserves an area of chalk grassland, other stone pits have been identified as being of geological interest.
- 9B.4 The scarp is unusual for the extent of settlement developing around springs on the lower slopes. The Shirrel spring below Sewell is a petrifying spring and has a history of use for votive offerings.



Exposed chalk face, the result of quarrying at Houghton Regis Quarry.



Hillside village of Totternhoe with Eaton Bray Clay vale to north and west (photo Marc Cohen)

Biodiversity

9B.5 Lowland calcareous grassland is a significant

feature of this area - with SSSI designated sites at Totternhoe Knolls and Totternhoe Quarry. Further area of chalk grassland occurs on exposed rock faces in former quarries and cuttings such as at Sewell cutting. Scrub and secondary woodland form part of the chalk grassland ecosystem but with lack of management have increased dramatically and played a damaging role in reducing the area of chalk grassland within this area. Totternhoe stone pit has been identified as an SSSI for its geological interest

- 9B.6 Farmland habitats such as arable field margins, hedgerows and improved grassland support important breeding bird species. The foot of the scarp includes numerous springs, including the Shirrell spring below Sewell.

Visual and perceptual character

- 9B.7 Extensive panoramic views are possible over the adjacent vale and beyond to the *Clay Hills* landscape character type.

Cultural pattern and historic character

- 9B.8 The light soils of the chalk downland areas were cleared for agriculture during the Neolithic period. Evidence of occupation from the Neolithic to Roman period has been identified at various locations along the top of the escarpment. Unlike the other chalk escarpments the Totternhoe-Sewell scarp has attracted historic settlements along its lower slopes.
- 9B.9 The scarp north-east of Sewell was in arable cultivation as part of the open field, while east of the A5 it was common land; both areas were subdivided at enclosure into regular large fields.
- 9B.10 In the medieval period the need for more arable land led to strip lynchets (cultivation terraces) being cut into the scarp slope south-east of Sewell and along the slopes above Middle End, Totternhoe
- 9B.11 Totternhoe Castle, on the end of the promontory, is a motte and bailey castle of dramatic proportions. It lies on the boundary of the Totternhoe Chalk Escarpment (9B) and the Totternhoe-Dunstable Rolling Chalk Farmland (10A), and is a significant landscape feature for both areas.
- 9B.12 Quarrying was a major feature of the escarpment from medieval times and continued into the post-medieval and modern periods. Medieval quarry pits are visible at the north end of the Totternhoe spur below the castle, accessing the beds of hard chalk (clunch) into the hillside. Later the quarrying moved along the scarp slope further east before expanding on to the plateau above.
- 9B.13 The deep cut of an old coach road (the Soch Way), which was constructed in order to avoid the steep slope where Watling Street, as engineered by Telford, rises over Puddlehill, can be seen north-east of Sewell.
- 9B.14 The majority of the field systems are 20th century, modern enclosure, although pockets of early enclosure and parliamentary enclosure can still be found, notably at Totternhoe surrounding the castle.
- 9B.15 Totternhoe Castle, medieval quarries and lynchets are all scheduled ancient monuments.

Settlement pattern; built character

- 9B.16 The lower part of the scarp slope contains significant areas of settlement Middle End and Lower End, Totternhoe developed as linear settlements around the foot of the promontory, probably serving the castle and quarries above. The settlement of Totternhoe, has seen significant modern expansion and has almost merged with Church End on the adjacent vale. Totternhoe is flanked by deciduous woodland at the top of the slope providing a wooded context. Sewell was a planned linear settlement in a similar position on the north-facing scarp; it is surrounded by small historic closes (some containing settlement earthworks and ridge and furrow), though these have been cut through by the railway. Chalk Hill appears to have grown up as a later hamlet around a toll-gate, and at the junction of the former coach road (Soch Way) and the main Watling Street.
- 9B.17 Buildings are mostly brick and timber, and would have traditionally had thatched roofs, although many of the roofs have now been replaced with tiles.
- 9B.18 The influence of the urban edge of Houghton Regis is felt due to the elevated position of the character area affording long range views to the settlement which is located at the base of the scarp to the east.

Evaluation

Landscape Change

Past change	Potential future change
<p>Development including sewage treatment works, residential expansion of Totternhoe and industrial uses.</p> <p>Recreation pressures including car parking.</p> <p>Construction of the A5, forming a dramatic cutting – fragmenting the scarp and exposing the chalk geology at Chalk Hill.</p> <p>Division of fields for horse and pony paddocks.</p>	<p>Within a broader area identified as a focus for extensive residential and employment development at Houghton Regis, with potential for the chalk scarps to provide key Green Infrastructure.</p> <p>Potential for loss of settlement identity should linear expansion continue e.g. along the A5 and Dunstable Road - merging the settlements of Totternhoe and Chalk Hill with the town of Dunstable.</p> <p>Potential extension of Busway - utilising the existing line of the dismantled railway.</p>

Key positive landscape features/ strategic sensitivities

- 9B.1.20 Totternhoe Castle and its dramatic setting, plus medieval quarries and lynchets (Scheduled Monument)
- 9B.1.21 Totternhoe quarry - species-rich unimproved chalk grassland which is vulnerable to increased recreational use and encroachment of scrub in the absence of grazing.
- 9B.1.22 Coppice woodland surrounding Totternhoe village which is of ecological value and provides a setting to the village and requires sustained management.
- 9B.1.23 Planned layout of Sewell, its associated closes and earthworks.
- 9B.1.24 Character and form of Totternhoe village and its component 'Ends'.
- 9B.1.25 The earthwork of the Soch Way (former coach road).
- 9B.1.26 Recreational value with numerous rights of way and sites providing good public access opportunities.
- 9B.1.27 The role of the area in providing a strong backdrop to the adjacent Clay Vale (5a).
- 9B.1.28 Intact hedgerow boundaries-particularly along the roadside.

Visual Sensitivity

- 9B.1.29 The escarpment landform which provides a dramatic setting to the *Eaton Bray Clay Vale* (5a) beyond - and a backdrop to views from these areas.
- 9B.1.30 Open skies and long range panoramic rural views across the adjacent Vale (5a), Dunstable Downs (9a and 10a) and to Ivinghoe Beacon in Buckinghamshire which will be sensitive to large scale changes within the adjacent lower lying landscapes.
- 9B.1.31 The open undeveloped skyline (including Totternhoe Castle), which would be sensitive to any form of further development both on the scarp top and tall development on the plateau beyond.
- 9B.1.32 The visual relationship this scarp shares within other prominent escarpments and hills in close proximity namely, the *Dunstable Downs Escarpment* (9b) and Ivinghoe Beacon (in adjacent Buckinghamshire), increases its sensitivity due to perception of this landscape as part of this series of prominent chalk landscapes.

Landscape Strategy

The overall strategy is to **enhance** the Totternhoe escarpment. There are a number of development (and other) pressures, both past and present, that have changed the character of the escarpment but, overall, it retains a strong sense of place. There is considerable scope to enhance character and this should be a key consideration in the light of potential future change. There are particular opportunities to restore chalk grassland in areas where scrub encroachment has taken hold, scope for improving management of recreational use and conserving the long-range, characteristic views across the adjacent landscapes and beyond.

Guidelines for New Development

- 9B.1.33 Avoid further industrial/utility development on the lower reaches of the scarp slope which would disguise the dramatic change in character from the adjacent low-lying clay vale.
- 9B.1.34 Conserve the undeveloped ridgeline of the north facing slope.
- 9B.1.35 Conserve the individual village identity/sense of separation of Totternhoe by preventing further linear development that would allow the village to merge completely with Church End or the suburban edge of Dunstable (along Dunstable Road).
- 9B.1.36 Conserve the sense of separation of Chalk Hill by limiting linear development along the A5 towards/from Dunstable.
- 9B.1.37 Strengthen the sense of place by responding to the traditional Chilterns' style building materials that define the older properties of Totternhoe.
- 9B.1.38 Retain and enhance woodland planting aligning the dismantled railway in anticipation of future operational use as part of the Busway Expansion.
- 9B.1.39 The area is a priority for management to maximise its value as a recreational resource/green infrastructure for Dunstable/Luton and a potentially increased urban population, and ensure conservation of important ecological, historical and perceptual qualities.
- 9B.1.40 Consider opportunities for creating further facilities for recreational enjoyment and access public access e.g. land purchase/management agreements for land adjacent to existing sites and creation of linkages between sites.
- 9B.1.41 Seek to retain the characteristic rural views across the adjacent Clay Vale (5a).

Landscape Management Guidelines

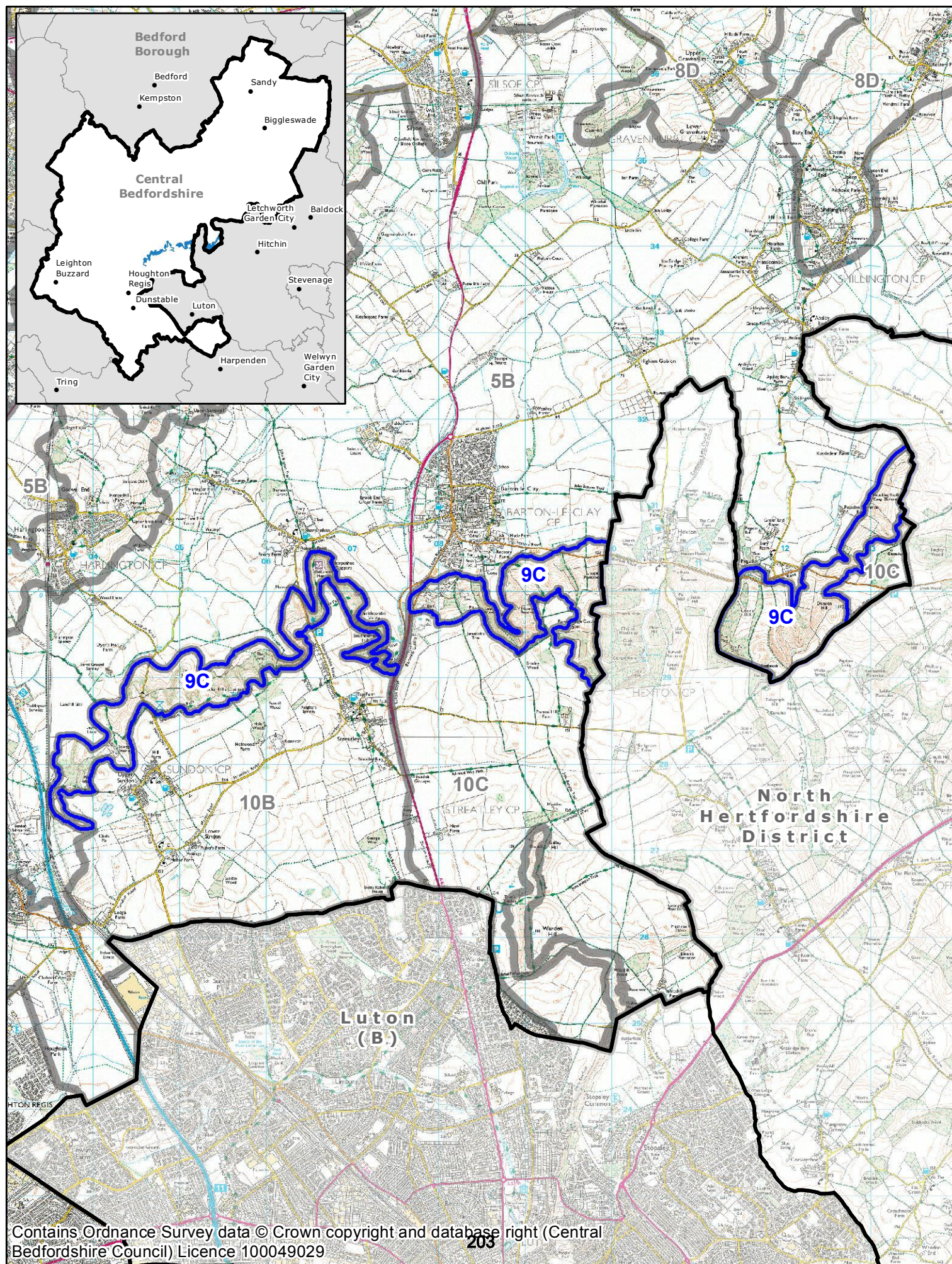
- 9B.1.42 Conserve the extent and quality of the areas of unimproved chalk grassland and scrub (of the SSSI) – seek to restore grassland where it has been lost and maintain an appropriate balance of open grassland, scrub and woodland.
- 9B.1.43 Consider opportunities for chalk grassland restoration - to create new habitats, links and connect existing sites and help buffer the SSSI.
- 9B.1.44 Improve the condition and structure of hedgerow boundaries by focussing hedgerow restoration between remaining sections so as to strengthen the landscape pattern -this is a key requirement alongside roads.
- 9B.1.45 Conserve the wooded context of Totternhoe village and apply an appropriate management strategy to enhance ecological value of the woodlands.
- 9B.1.46 Conserve and enhance the historic field pattern around Sewell, with its earthworks and ridge and furrow.
- 9B.1.47 Conserve the earthworks of Totternhoe castle, the medieval quarries and lynchets and safeguard their setting; monitor visitor pressure to prevent erosion.
- 9B.1.48 Conserve the earthworks of the coach road (Soch Way).

- 9B.1.49 Monitor the division of fields into small grazing units which has led to overgrazing in some areas and promote appropriate management of horse paddocks.
- 9B.1.50 Manage recreational use and ensure any further recreational development is well-integrated into the surrounding landscape e.g. through screening by surrounding deciduous woodland.

Also refer to the following documents:

- South Bedfordshire Green Infrastructure Plan: Network Area 3
- Totternhoe Heritage Park (potential project).

9C: The Clappers Chalk Escarpment



9C The Clappers Chalk Escarpment

Location and Boundaries

- 9C.1 This prominent chalk escarpment forms the most northerly extent of the band of chalk defining the southern half of Central Bedfordshire. The scarp extends from the M1 motorway in the west, to Knocking Knoll in the east. It marks the distinction between the low-lying, flat terrain of the *Barton-le Clay Clay Vale* - 5b (to the north) and the undulating dipslope chalk landscape of the *Houghton Regis-North Luton Rolling Chalk Farmland* - 10b (to the south). *The Clappers* is distinctive - having the most convoluted form of all the scarps in Bedfordshire - contrasting, for example, with the straight formation of the escarpment at *Dunstable Downs* (9a).
- 9C.2 The area is almost entirely within the Chilterns AONB.

Summary of landscape character: Key characteristics

- 9C.1.1 Prominent chalk scarp with a dramatic, convoluted form - part of the Chilterns AONB.
- 9C.1.2 Bold undeveloped skyline - varying from smooth and open to textured and wooded.
- 9C.1.3 Elevation ranges from 75m - 173m AOD (the highest point at Deacon Hill).
- 9C.1.4 A striking backdrop to the adjacent low-lying and contrastingly flat Barton-le-Clay Clay Vale (5b).
- 9C.1.5 Long-range, panoramic views across the adjacent Barton-le-Clay Clay Vale (5b) to Harlington-Pulloxhill Clay Hills (8c).
- 9C.1.6 Heavily-wooded with bands and swathes of woodland (dominated by beech at Smithcombe, Sundon Hills and Sharpenhoe Clappers) occurring at the base, mid-section and top of the scarp (where trees silhouette against the sky).
- 9C.1.7 Significant historic interest including Neolithic and Bronze Age burial mounds visible on the crest of the scarp, Iron Age earthworks at The Clappers, plus a medieval rabbit warren.
- 9C.1.8 Woodland interspersed by areas of remnant sheep-grazed chalk grassland and scrub - Barton Hills and Smithcombe, Sharpenhoe and Sundon Hills afforded SSSI designations accordingly.
- 9C.1.9 Significant tracts of the scarp have minimal tree cover; exhibiting a smooth, sweeping slopes and empty ridgeline e.g. at Deacon Hill.
- 9C.1.10 There are no obvious field boundaries or divisions on the scarp. Fields are delineated by post and wire fencing - helping to retain the sinuous character of the landform.
- 9C.1.11 An absence of settlement with the exception of a small collection of residential properties occurring at the base and lower reaches of the slope (at Moleskin, East Hill and Pegsdon).
- 9C.1.12 Important recreational resource with the Sundon Hills Country Park and Icknield Way Trail/John Bunyan Trail/ Chilterns Way present on the scarp. Supported by associated car parking facilities (adjacent to Harlington and Sharpenhoe Roads).
- 9C.1.13 Numerous roads (primary and secondary), cutting north-south, providing the most direct route for connecting the landscapes on either side of the scarp.
- 9C.1.14 Communication masts in the adjacent Houghton Regis-North Luton Rolling Chalk Farmland (10b) punctuate the tree canopy - appearing as part of the scarp when viewed from the low-lying clay vale.

Landscape Character Description

Physical and natural landscape

- 9C.3 This is a prominent scarp with a convoluted, serpentine form - of striking and distinct character. Forming the northern edge of the band of chalk of the Chilterns, the *Clappers Chalk Escarpment* looms over the adjacent low-lying clay vale (5b) immediately to the north. The transition from scarp slopes to clay vale is of note – especially lack of development. The scarp's elevation allows extensive views across the vale and to the clay hills that lie beyond (8a and 8c). As with all the escarpments in Central Bedfordshire, the reciprocal views are a particular focus for recreation, gained from areas of open access, recreational routes (including the Icknield Way Trail) and Sundon Hills Country Park.
- 9C.4 The scarp face is strongly textured with significant tracts of woodland interspersed with areas of scrub and chalk grassland of high ecological value. A feature of particular note is the upstanding prehistoric earthworks – burial mounds visible on the crest of the scarp. The sinuous character of the landform is clearly expressed with an absence of conspicuous field boundaries – which gives a visual indication of the open character of common land before enclosure.
- 9C.5 The scarp has a strong ridgeline (both wooded as well as open) that has remained free from development. Communication masts on the adjacent *Rolling Chalk Farmland* (10b) do however have an impact on the predominantly open character of the skyline.



View north across the Barton-le Clay vale from Pegsdon



Extensive chalk grassland restoration strengthens downland character, from Pegsdon

Biodiversity

- 9C.6 The area is dominated by chalk downland on the escarpment, with Smithcombe, Sharpenhoe and Sundon Hills SSSI containing extensive areas of unimproved chalk grassland, with varying amounts of scattered scrub. Many of the deep combs are dominated by dense species-rich scrub and secondary woodland. A planted beech hanger is a particularly distinctive feature of Sharpenhoe Clappers, with additional beech woodland at Smithcombe Hills. Most of the escarpment is now managed for nature conservation and public access. The south west part of the area has been disturbed by quarrying and part of Sundon Quarry is designated as a SSSI for its chalk grassland and wetland habitats, including chalk springs and willow scrub, with additional areas having a local designation.

Visual and perceptual character

- 9C.7 A largely unsettled character area with extensive views across the surrounding vale and to the clay hills beyond, a focus for recreation. The area itself retains a rural, tranquil character.



Sundon Hills Country Park



The Clappers chalk escarpment

Cultural pattern and historic character

- 9C.8 The light soils of the chalk downland areas were cleared for agriculture during the Neolithic period. The prominent open landscape of the chalk escarpment became a favoured location for the construction of burial mounds in the later Neolithic and Bronze Age, highly visible on the crest of the scarp. A scheduled example is located at Knocking Hoe, east of Pegsdon.
- 9C.9 The Icknield Way was an important prehistoric communication route. It forms the county boundary along the southern edge of Shillington parish. During the Iron Age, the demarcation and protection of territorial boundaries was manifested in the construction of dykes across the line of the Icknield Way to control the movement of traffic. One of these linear earthworks survives on Telegraph Hill, south of Pegsdon. Hillforts were also constructed: Sharpenhoe Clappers (a scheduled monument) defends the promontory south of Sharpenhoe village;
- 9C.10 Ravensburgh Castle, though just beyond the county boundary in Hertfordshire, occupies a prominent position within the visible landscape, commanding the scarp slopes south-east of Barton. Sharpenhoe Clappers has the added interest of having been re-used as a rabbit warren in the middle ages (which is the derivation for the 'Clappers' name).
- 9C.11 In the medieval period the need for more arable led to strip lynchets (cultivation terraces) being cut into the steep scarp slope. Examples have been recorded at Sharpenhoe Clapper, south-east of Barton, on the slopes below Ravensburgh Castle, and on Telegraph Hill, Deacon Hill and Tingley Field in Shillington parish. They went out of cultivation in the later middle ages. Agricultural land to the north and south of the escarpment was mostly in open field cultivation, enclosed by regular boundaries in the late 18th/early 19th century.

Settlement pattern; built character

- 9C.12 Aside from a few properties at the lower reaches of the slope, the scarp is noticeably undeveloped and as such has a tranquil, remote character.

Evaluation

Landscape Change

Past change	Potential future change
Extension of arable land use. Development of transport infrastructure including the A6 (T) at Barton Hill. Positive restoration of major landfill e.g. at Sundon.	Potential for further settlement expansion onto the escarpment from the adjacent lower lying <i>Clay Vale and Chalk Farmland</i> . The scarp lies to the north of the potential route of the M1-A6 Link Road. This new route could be a highly visible and audible feature- reducing the sense of tranquillity on the scarp. Impact of potential future residential and employment growth to the north of Luton and Rail Freight Interchange adjacent to Sundon Quarry.

Key landscape features/ strategic sensitivities of the landscape

- 9C.1.15 Dramatic, convoluted landform with prominent, undeveloped ridgeline/skyline which is vulnerable to change as a result of development.
- 9C.1.16 Nationally designated nature conservation sites including chalk grassland and mature beech woodland – which are vulnerable to new impacts such as recreation pressures.
- 9C.1.17 Historic sites including upstanding prehistoric earthworks – an unusual survival in the county.
- 9C.1.18 Important recreational resource due to the presence of rights of way including the Icknield Way Path and the John Bunyan Trail.
- 9C.1.19 General absence of settlement evoking a strong rural character.
- 9C.1.20 Open downland, uninterrupted by visible boundaries, giving a visual indication of the open character of common land before enclosure.
- 9C.1.21 Woodland cover providing an important visual as well as ecological resource.

Visual Sensitivity

- 9C.1.22 Panoramic views across the adjacent landscapes of the *Clay Vales* and beyond to the *Clay Hills* (8c).
- 9C.1.23 Important setting and backdrop to the adjacent low-lying *Barton-le-Clay Clay Vale* (5b).
- 9C.1.24 Dramatic, conspicuous landform which is perceptible from considerable distances – i.e. from the wide open Barton-le-Clay Clay Vale (5b) and the Toddington-Hockliffe Farmed Clay Hills (8a) beyond.
- 9C.1.25 Largely undeveloped scarp slopes are highly visible and would be sensitive to change.

Landscape Strategy

The overall strategy for The Clappers Chalk Escarpment is to **conserve** and **enhance** the landscape. The aim should be to conserve the dramatic landform and prominent views, the wealth of important historic and biodiversity features and its value as a recreational resource. This could largely be attained through appropriate and ongoing management in order to improve the condition of the landscape.

Guidelines for New Development

- 9C.1.26 Explore opportunities for chalk grassland restoration and enhancing connectivity with existing sites at Barton Hills, Knocking Hoe and Smithcombe, Sharpenhoe and Sundon Hills.
- 9C.1.27 Conserve the open, sinuous character of the scarp through preventing the erection of visually impermeable field boundaries e.g. solid fencing.
- 9C.1.28 Prevent further urbanisation of the roads - widening/kerbing or lighting and ensure that traffic management measures are sympathetic to the rural character.
- 9C.1.29 Retain the deciduous woodland belts aligning the B655 - limiting the visual intrusion of the road and buffering noise levels both within the scarp and the adjacent clay vale landscape.
- 9C.1.30 Conserve the clear views and visual relationship with the *Barton-le-Clay Vale* (5b) and beyond to the *Clay Hills* (8c) – further development within these landscapes could impact on the setting of the scarp and quality of the views.
- 9C.1.31 Conserve the integrity of the chalk escarpment and dipslope transition which is a key feature of the Chilterns landscape.
- 9C.1.32 Conserve the peaceful, 'rural' character of the scarp; retaining the distinct contrast with the nearby urban area of Luton.
- 9C.1.33 Conserve the largely undeveloped nature of the ridgeline and prevent further tall developments on the adjacent *Houghton Regis-North Luton Rolling Chalk Farmland* (10b).
- 9C.1.34 Retain the distinction with the lower lying clay vales and ensure that expansion of scarp foot settlements such as Barton and Pegsdon does not encroach onto the lower slopes.
- 9C.1.35 Improve the areas of car-parking provision (such as at Sundon Hills Country Park) by providing a consistent and appropriate permeable surfacing material and limit the expansion of further areas of car parking.
- 9C.1.36 Conserve and enhance access and connections from the urban area into the chalk escarpment such as the John Bunyan Trail, Icknield Way Path and links to Sundon Country Park. Avoid severance of existing routes.

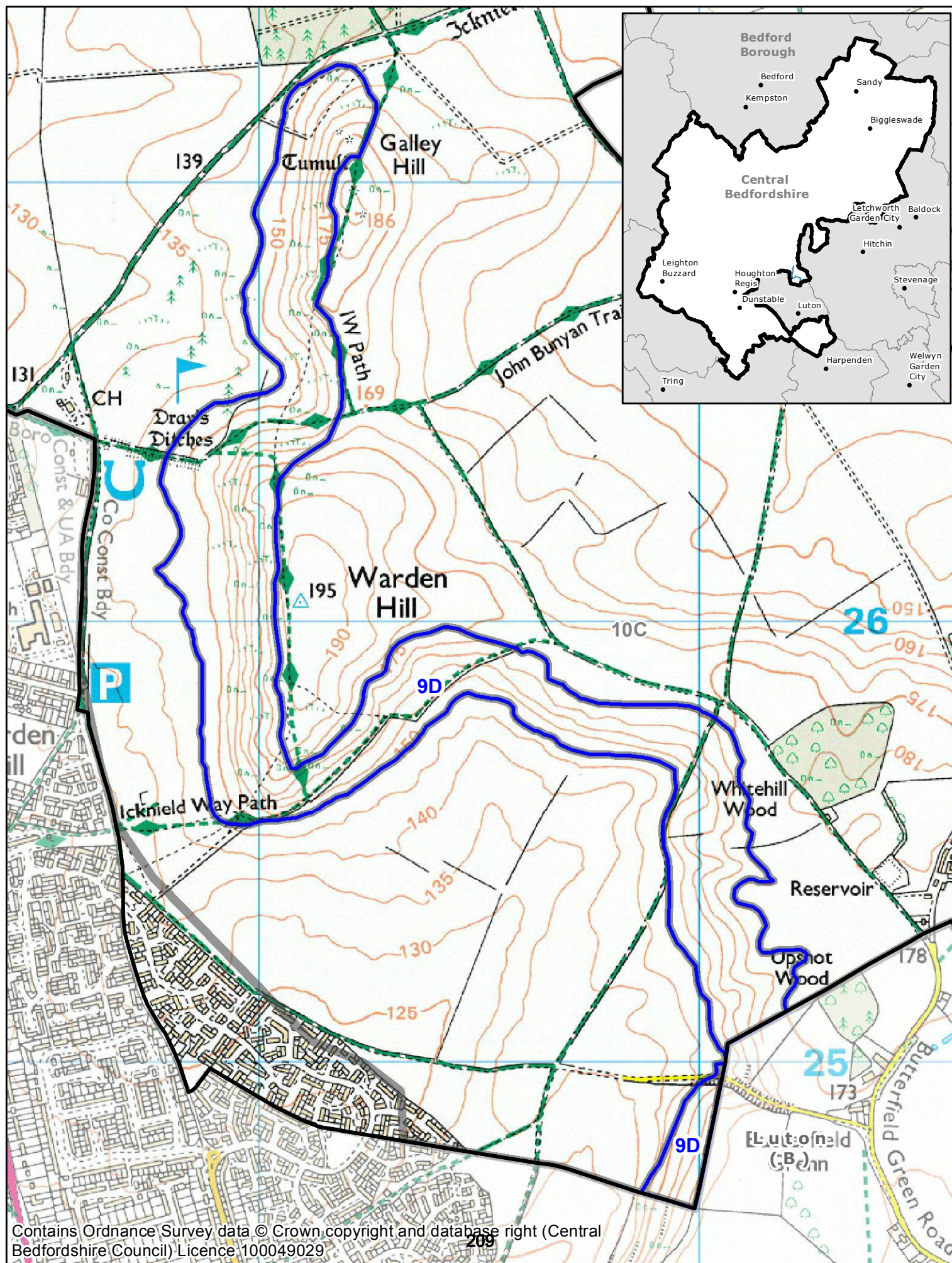
Landscape Management Guidelines

- 9C.1.37 Conserve the unimproved chalk grassland sites and continue to manage through appropriate grazing regimes.
- 9C.1.38 Conserve the grassland cover of earthwork monuments; where they exist under woodland or plantation ensure that management of woodland respects their archaeological significance.
- 9C.1.39 Conserve the areas of ancient woodland of Leat Wood and other mature deciduous wooded areas (such as at Sharpenhoe Clappers) and apply an appropriate woodland management strategy to enhance their ecological value.
- 9C.1.40 Continue management to conserve existing open spaces such as Sundon Hills Country Park and Sharpenhoe Clappers on the escarpment to enhance character and capacity while respecting their sensitive location.

Also refer to the following documents:

- South Bedfordshire Green Infrastructure Plan: The Chalk Arc
- Sundon Hills Enhancement - *This has been identified as a priority within the access, heritage, biodiversity and landscape themes. The buffering of the existing SSSI with chalk grassland re-creation on the shallow soils to the north will help improve the biodiversity value and compensate for loss through erosion along footpaths. There is potential for wetland creation and access links to the restored Sundon landfill and the access areas at Sundon quarry.*

9D: Warden Hill - Stopsley Common Chalk Escarpment



9D Warden Hill – Stopsley Common Chalk Escarpment

Location and Boundaries

- 9D.1 This chalk escarpment is located in the south of Central Bedfordshire, to the north east of Luton, a small part to the south extends into Luton Borough. The scarp extends northwards from the urban edge of Luton at Stopsley Common in the south to Galley Hill in the north. *Warden Hill - Stopsley Common Chalk Escarpment* has a striking presence due to its close proximity to the edge of Luton and its role in providing a setting for the urban area.
- 9D.2 The majority of the area is within the Chilterns AONB.

Summary of landscape character: Key characteristics

- 9D.1.1 A prominent steep scarp with a sinuous convoluted form. Warden Hill is a bold hill landform and Stopsley Common a scarp.
- 9D.1.2 Elevation ranges from 150-180 AOD, with the highest point on the ridgeline at Warden and Galley Hill.
- 9D.1.3 Striking undeveloped ridgeline - varying from smooth and open to textured by scrub and grassland.
- 9D.1.4 A striking backdrop and setting to the edge of east Luton with clear views of the scarp from the adjacent areas of suburban housing.
- 9D.1.5 Strong sense of exposure with dramatic, long-range views from the ridge and slopes of the scarp across the adjacent *Chalk Farmland* (10c) and across the rooftops of Luton to tall tower blocks on the horizon.
- 9D.1.6 A very open character with no obvious field boundaries or divisions on the scarp.
- 9D.1.7 Unsettled and undeveloped landscape but with close views to the Warden Hill suburban housing estate on the north-east edge of Luton.
- 9D.1.8 Historic interest with conspicuous Neolithic/Bronze Age barrows on the scarp crest, Iron Age territorial boundaries and medieval strip lynchets cut into the scarp.
- 9D.1.9 Important local recreational resource with the Icknield Way Path and other public footpaths crossing and running along significant lengths of the ridgeline.
- 9D.1.10 The northern part of the scarp is dominated by Galley and Warden Hills SSSI, a nationally important unimproved chalk grassland site.
- 9D.1.11 Woodland extends into the adjacent area of Luton at Stopsley Common.

Landscape Character Description

Physical and natural landscape

- 9D.3 The sinuous scarp creates a distinctive setting to the northeast edge of Luton. Aside from small areas of scrub, the scarp has a smooth and open character with no obvious field boundary divisions. The land cover is characterised by pasture, with a large area defined by the nationally important Galley and Warden Hills SSSI chalk grassland site (on the northern part of the scarp). There is regular sheep grazing on Galley Hill.
- 9D.4 Free from development, the escarpment contrasts markedly with the Luton townscape - clear views of which are provided from the sloping sides and the open, undeveloped ridgeline. Although appearing to terminate at the urban edge, the landform actually flows into Luton but is much less distinct due to the density of built development.
- 9D.5 This landscape is an important recreational resource with numerous rights of way, including the Icknield Way Path and John Bunyan Trail providing a direct access link to the scarp from Luton.



Warden Hill

Biodiversity

- 9D.6 The most characteristic feature is the chalk downland and varying amounts of scrub and secondary woodland along the escarpment forming the Galley and Warden Hills SSSI. Areas of chalk heath with heather were formerly recorded from Galley Hill reflecting the presence of more acidic clay with flints overlying the chalk although this habitat is no longer present. Scrub and secondary woodland have encroached in some areas and reduced the area of chalk grassland. The remainder of the scarp is still farmed - although much is in long term set aside. To the south Stopsley Common has been managed as an amenity area for many years though many parts of it are now managed for nature conservation.

Visual and perceptual character

- 9D.7 The character area has a strong sense of exposure with dramatic, long-range views from the ridge and slopes of the scarp across the adjacent *Chalk Farmland* (10b and 10c) and across the rooftops of Luton to tall tower blocks on the horizon. There is a distinct lack of development which provides a contrast to the urban development of Luton. However, close proximity of suburban housing estates near to the scarp edge in Luton has affected the experience of rurality and tranquillity.

Cultural pattern and historic character

- 9D.8 The light soils of the chalk downland areas were cleared for agriculture during the Neolithic period. The open landscape of the chalk escarpment became a favoured location for the construction of burial mounds in the later Neolithic and Bronze Age, highly visible on the crest of the scarp. A scheduled group of barrows occupies a prominent position at the north end of Galley Hill.
- 9D.9 The Icknield Way was an important prehistoric communication route, skirting round the foot of the escarpment at the north end of Galley Hill. During the Iron Age, the demarcation and protection of territorial boundaries was manifested in the construction of dykes across the line of the Icknield Way to control the movement of traffic. Drays Ditches (scheduled), crossing the Icknield Way and running on to the lower slopes of the escarpment, is a very well-preserved example.
- 9D.10 Medieval strip lynchets (cultivation terraces) are cut into the scarp on Bradgers Hill, at the south end of the area.

Settlement pattern; built character

- 9D.11 There is no settlement or built form on the escarpment and this provides a stark contrast with the urban edge of Luton.

Evaluation

Landscape Change

Past Change	Current and Future Change
<p>Development at the Luton urban edge</p> <p>Encroachment of scrub and secondary woodland has resulted in loss of chalk grassland but also ongoing restoration management.</p> <p>The creation of areas of hard standing for the development of car parking facilities in the adjacent character area (10c) are prominent in foreground views from the scarp.</p>	<p>The rural qualities of the landscape are under pressure due to the proximity of Luton and Stopsley and potential future development.</p> <p>Pressure for further residential expansion towards the escarpment (from the adjacent Luton and Stopsley urban edges).</p> <p>Further woodland expansion - threatening the important ecological resource of the unimproved chalk grassland.</p> <p>Aspiration of Luton Borough Council for a relief road between the A6 and A505.</p>

Key positive landscape features/ strategic sensitivities of the landscape

- 9D.1.12 Dramatic, convoluted landform with prominent, undeveloped ridgeline - striking presence in relation to the adjacent urban edge of Luton.
- 9D.1.13 Important rural setting and backdrop to the suburban and urban context of Luton.
- 9D.1.14 Undeveloped and unsettled character creating a strong rural and tranquil character and contrast to the adjacent urban area.
- 9D.1.15 Nationally designated nature conservation sites notably areas of chalk grassland.
- 9D.1.16 Important recreational resource with the presence of rights of way including the Icknield Way Path and numerous public footpaths linking to the urban edge making it highly accessible for people in nearby urban areas.

- 9D.1.17 Upstanding prehistoric earthworks (Galley Hill barrows and Drays Ditches), an unusual survival in the county.
- 9D.1.18 Open downland, uninterrupted by visible boundaries, gives a visual indication of the open character of common land before enclosure.
- 9D.1.19 The well-preserved lynchets on Bradgers Hill.

Visual Sensitivity

- 9D.1.20 Panoramic views across the adjacent landscapes of the Rolling Chalk Farmland (10b and 10c) and across the roof tops of Luton.
- 9D.1.21 Open, exposed skyline forming a backdrop in views from the urban area. The scarp is distinctive in views for the northeast of Luton and nearby character areas.
- 9D.1.22 Significant tracts of the ridgeline are smooth, open and undeveloped making them highly sensitive to change. Similarly, the sloping scarp sides are also free from development and highly visible.

Landscape Strategy

The overall strategy for the Warden Hill - Stopsley Common Chalk Escarpment (9d) is to **conserve** and **enhance** the landscape. The aim should be to conserve the intact escarpment landform with its undeveloped rural character so that it continues to provide a strong setting and backdrop to the urban edge of Luton. The key features of chalk grassland, panoramic views and recreational access should continue to be conserved and enhanced.

Guidelines for New Development

- 9D.1.23 Maintain the integrity of the scarp landform and ensure that development does not extend up to the foot of the scarp and thereby mask the dramatic landform.
- 9D.1.24 Consider opportunities for enhancing views to the existing housing estates on the eastern edge of Luton, for example through tree planting whilst maintaining views out to the scarp.
- 9D.1.25 Residential growth associated with Luton will increase recreational pressures on the area and good recreation management will be required to conserve the sensitive landscape resource.
- 9D.1.26 Further car park and development of recreation facilities in the adjacent character area (10C) should be restricted in order to retain a sense of tranquillity on the scarp. There may be an opportunity to enhance recreational facilities at the foot of the scarp as part of the entry point from the urban area.
- 9D.1.27 Conserve the wholly undeveloped and 'tranquil' character of the scarp and its open ridgeline. Ensure that any development in the adjacent character e.g. tall structures do not impact on the skyline view.
- 9D.1.28 Conserve the scheduled monuments of Galley Hill barrows and Dray's Ditches and their settings.

Landscape Management Guidelines

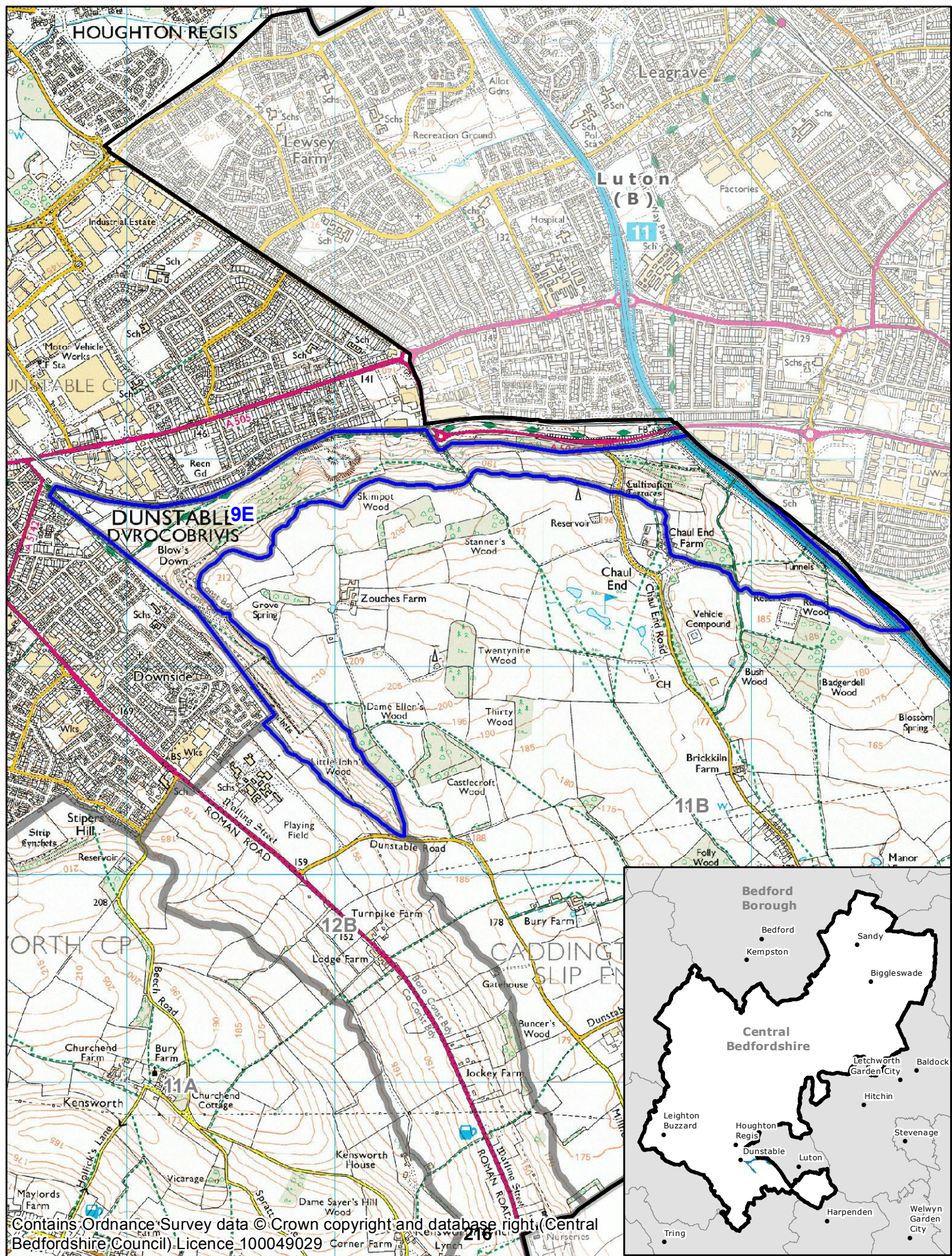
- 9D.1.29 Continue to manage the chalk grassland resource and consider opportunities to extend the habitat through restoration and creation.
- 9D.1.30 Conserve the open character of the scarp and ensure that it does not become compartmentalised or enclosed for example by erection of visually impermeable field boundaries.

- 9D.1.31 Conserve and enhance access and connections from the urban area into the chalk escarpment via the Icknield Way Path as well as links to Stopsley Common recreation area.
- 9D.1.32 Conserve the lynchets at Bradgers Hill, maintaining an open grassland cover.

Also refer to the following documents:

- South Bedfordshire Green Infrastructure Plan: The Chalk Arc
- Luton Green Infrastructure Plan

9E: South Dunstable Chalk Escarpment



9E South Dunstable Chalk Escarpment

Location and Boundaries

- 9E.1 The *South Dunstable Chalk Escarpment character* area (9e) is located adjacent to the southern edge of Dunstable. The scarp separates the urban area (to the north) from the elevated *Caddington - Slip End Chalk Dipslope* (11b). This scarp is distinguished from the other *Chalk Escarpments* as a result of its strong urban context. Much of its dramatic landform is masked by the urban edge of Dunstable and associated development abutting the foot of the scarp - blocking and filtering views to the lower stretches of the slope. The upper areas of scarp face and ridgeline, characterised by overgrown hedgerows and trees silhouetted onto the skyline are often the only visible features from the urban area.
- 9E.2 The area is partially within the Chilterns AONB. The entire length of the scarp, west from Chaul End Farm is within the designation.

Summary of landscape character: Key characteristics

- 9E.1.1 Pronounced, steep sided, chalk escarpment with uniform slopes and straight profile, underlain by middle chalk. Elevation ranges from 150 - 200m AOD.
- 9E.1.2 Strong urban context with the southern edge of Dunstable and its associated development abutting the foot of the scarp - blocking and filtering views to the lower stretches of the slope.
- 9E.1.3 Upper sections of the scarp slope, characterised by overgrown hedgerows and trees along the ridgeline, are often the only visible features when viewed from the urban area.
- 9E.1.4 Distinct sense of exposure along the ridgeline of the scarp with dramatic, long ranging views to the north and east across industrial units and housing estates of Dunstable and Luton.
- 9E.1.5 Varied land use/land cover comprising sheep grazing, pockets of woodland as at Blow's Downs and busy road corridors e.g. A5065, Chaul End Road.
- 9E.1.6 General absence of settlement, however some settlement is encroaching onto the lower slopes at the Downside area of Dunstable.
- 9E.1.7 Glimpsed views of the scarp provide a dramatic backdrop from retail estates at the foot of the scarp and from housing estates at the southern edge of Dunstable.
- 9E.1.8 Recreational value (and associated pressures). The historic route of the Icknield Way Path runs along the entire length of the base of the scarp linking with rights of way and open access at Blow's Downs.
- 9E.1.9 Exposed chalk face where the A5065 road has been cut into the scarp to run parallel with the slope and where Chaul End Road cuts across the contours - fragmenting the landform.
- 9E.1.10 Busy, urban junctions associated with the A5065 are located at the foot of the slope. Bunding and tree planting along this section of the road buffers ascending views of the road (and reduces its visual impact) from the housing estates below.
- 9E.1.11 Dominated by Blows Down SSSI, a large and nationally important unimproved chalk grassland site which support many notable plant species.
- 9E.1.12 Strong semi-rural character providing an important backdrop and natural containment to growth of the adjacent urban areas.
- 9E.1.13 Pylons run along the entire length of the western edge of the scarp, crossing the base of the slope at Blow's Downs and extending into the urban edge of Dunstable. Pylons are also a feature along the eastern edge - running parallel to the nearby M1.

Landscape Character Description

Physical and natural landscape

- 9E.3 Forming part of the Chilterns AONB, this narrow chalk scarp forms a prominent natural backdrop to the Dunstable - Luton conurbation at the base of the slope. Chaul End Road and the busy A5065 reduce the visual integrity of the scarp - the road cuttings exposing the chalk face and forming conspicuous engineered retaining banks. Although greatly influenced by the roads and adjacent urban landscape, the scarp does have a semi-rural character not least because of the presence and extent of Blow's Down SSSI - a large chalk grassland site surrounded by deciduous woodland. The scarp has a high recreational value with numerous public rights of way (including the Icknield Way Path) providing good access onto and across the landscape.

Biodiversity

- 9E.4 The area has a high biodiversity value with the escarpment consisting mostly of Blow's Down SSSI and County Wildlife Site. Extensive areas of unimproved and semi-improved chalk grassland are present with varying amounts of scattered and dense scrub, and secondary and plantation woodland. Most of the chalk grassland along the escarpment is managed for nature conservation and public access, although areas of scrub and secondary woodland have increased dramatically at the expense of chalk grassland.
- 9E.5 There are a number of other important habitats. At the base of the escarpment is an area of flat semi-improved grassland known as The Paddocks. The Guided Busway runs along the route of the disused Dunstable-Luton railway at the base of the downs, forming most of the northern boundary of the area and includes areas of chalk and neutral grassland and scrub.
- 9E.6 Part of the area within Blow's Down has been previously disturbed by quarrying for stone and chalk. Other exposures created through the chalk include the cutting of the M1 and A505 - areas of bare chalk provide a further habitat.

Visual and perceptual character

- 9E.7 Strong semi-rural character providing an important backdrop and natural containment to growth of the adjacent urban areas. Distinct sense of exposure along the ridgeline of the scarp with dramatic, long ranging views to the north and east across industrial units and housing estates of Dunstable and Luton.
- 9E.8 Both the ridge and scarp face provide clear views across the townscape. In reciprocal views, the scarp is a dominant feature and a striking green setting - often glimpsed through the gaps between built form. The upper reaches of the slope and tree-lined ridge are particularly prominent.



View from Chaul End Road



Blows Down escarpment connects directly with the town
(photo Paul Buckingham)

Cultural pattern and historic character

- 9E.9 While the Downs at Dunstable have been open since they were first cleared for agriculture during the Neolithic period, there are no visible prehistoric monuments known in this area. There are however earthworks along the scarp slope which provide evidence of previous land use.
- 9E.10 Medieval strip lynchets (cultivation terraces) were cut into the scarp on Blow's Downs and north of Chaul End Farm, at a time of increased pressure to provide arable land. They went out of use in the later middle ages.
- 9E.11 The Downs provided a grazing resource for the adjacent historic parishes of Houghton Regis and Caddington. The movement of sheep was facilitated by deep cut-ways constructed diagonally across the face of the scarp. The old routeway running up the scarp from Skimpot (above the A5065 roundabout) has also formed a deep hollow way.
- 9E.12 There are some remains of localised quarrying.

Settlement pattern; built character

- 9E.13 The scarp is for the most part unsettled although some residential development has extended onto and, to some degree disguises, the lower reaches of the slope at Dunstable.

Evaluation

Landscape Change

Past Change	Current and Future Change
<p>Busy roads and roundabouts fragmenting the scarp.</p> <p>Development including the Luton-Dunstable Guided Busway at the foot of Blow's Downs.</p> <p>Urban housing expansion on adjacent lower lying areas has encroached onto areas of the lower slopes, e.g. near Dunstable Downs.</p> <p>Chalk quarrying.</p>	<p>Potential development at Caddington and Slip End, towards the ridgeline of the scarp in the adjacent Caddington-Slip End Arable Chalk Plateau (11b) may affect views to the undeveloped ridgeline from Dunstable.</p> <p>M1 route upgrading and junction improvements at the eastern end of the scarp.</p> <p>Further development of large warehousing in Dunstable has the potential to create large scale roofscapes.</p>

Key positive landscape features/ strategic sensitivities of the landscape

- 9E.1.15 Blow's Down SSSI with surviving areas of unimproved chalk and neutral grassland supporting a wide range of grassland community types, and rich associated flora including many notable plant species which is vulnerable to further scrub and woodland encroachment.
- 9E.1.16 Recreational value with numerous rights of way and the Icknield Way Path providing good public access from Dunstable to the Dunstable Downs Chalk Escarpment (9A).
- 9E.1.17 Extensive remains of strip lynchets are at risk from scrub encroachment.
- 9E.1.18 Small-scale earthworks along the scarp provide evidence of previous land-use, but would be vulnerable to further road improvements or cuttings.
- 9E.1.19 Open downland, uninterrupted by visible boundaries, gives a visual indication of the open character of common land before enclosure.
- 9E.1.20 Strong semi-rural character providing an important backdrop and natural containment to the adjacent urban area.

Visual Sensitivity

- 9E.1.21 Long-ranging views across the roof tops and industrial estates located in the adjacent urban area of Dunstable.
- 9E.1.22 Glimpsed views of the scarp provide a dramatic backdrop from retail and housing estates at the foot of the scarp.

Landscape Strategy

The overall strategy for the South Dunstable Chalk Escarpment character area is to **enhance** and **renew** the integrity and condition of the escarpment so it continues to provide a rural backcloth and green context to the urban area. The area should provide a strong escarpment landform, an open undeveloped ridgeline with significant areas of chalk grassland clothing the slopes

Guidelines for New Development

- 9E.1.23 Prevent further encroachment of settlement onto the slopes of the scarp from adjacent housing estates.
- 9E.1.24 Conserve the integrity of the scarp landform and prevent further fragmentation of the scarp through road development and pylons.
- 9E.1.25 Retain views of the scarp from urban areas and greenspace abutting the scarp at Dunstable.
- 9E.1.26 Conserve and enhance recreational routes from the urban area to the chalk escarpment, e.g. at Blow's Downs and links to *the Dunstable Downs Chalk Escarpment* (9a) via the Icknield Way Path. Avoid severance of existing routes.
- 9E.1.27 Seek to retain the semi-rural character of the scarp by conserving the distinction between the scarp and urban area so that it continues to provide an important backdrop.

Landscape Management Guidelines

- 9E.1.28 Enhance the ecological value of the landscape by extending chalk grassland through selective scrub removal. Explore opportunities for chalk grassland restoration and enhancing connectivity with existing sites (e.g. the SSSI designated chalk grassland on the adjacent chalk escarpment).
- 9E.1.29 Enhance grazing regimes in order to improve the value of chalk grassland cover and conserve areas of pasture on the slopes of the scarp.
- 9E.1.30 Ensure a consistent approach to future engineered retaining features, where the A5065 and Chaul End Road cut through the chalk.
- 9E.1.31 Remove scrub and restore grass cover on lynchets and other significant earthworks, to safeguard their physical integrity and make them more visible and accessible.
- 9E.1.32 Restore and enhance the condition and structure of hedgerows along the ridgeline to enhance prominent views to the scarp from Dunstable.
- 9E.1.33 Conserve the ecological value of the old quarrying site at Blow's Downs.
- 9E.1.34 Conserve existing woodland blocks and apply an appropriate management strategy to enhance ecological interest.
- 9E.1.35 Consider opportunities for small scale woodland creation close to the urban edge at Dunstable, whilst ensuring views to the scarp are protected.
- 9E.1.36 Conserve views to undeveloped slopes and ridgeline ensuring that development at Chaul End Farm and the Vauxhall vehicle compound (on the adjacent *Caddington - Slip End Chalk Dipslope* (11b) do not become visible along the ridgeline.
- 9E.1.37 Improve the condition of roadsides by removal of littering and occasional instances of flytipping.
- 9E.1.38 Prevent further urbanisation of Chaul End Road and ensure that traffic management measures are sympathetic to the semi-rural character.

9E.1.39 Conserve the vegetated buffer along the A5065 which limits views of the road cutting along the northern face of the scarp. Coniferous species along this route which are not in keeping with the character should be replaced with beech/ maple.

Also refer to the following documents:

- South Bedfordshire Green Infrastructure Plan: Chalk Living Landscape Project