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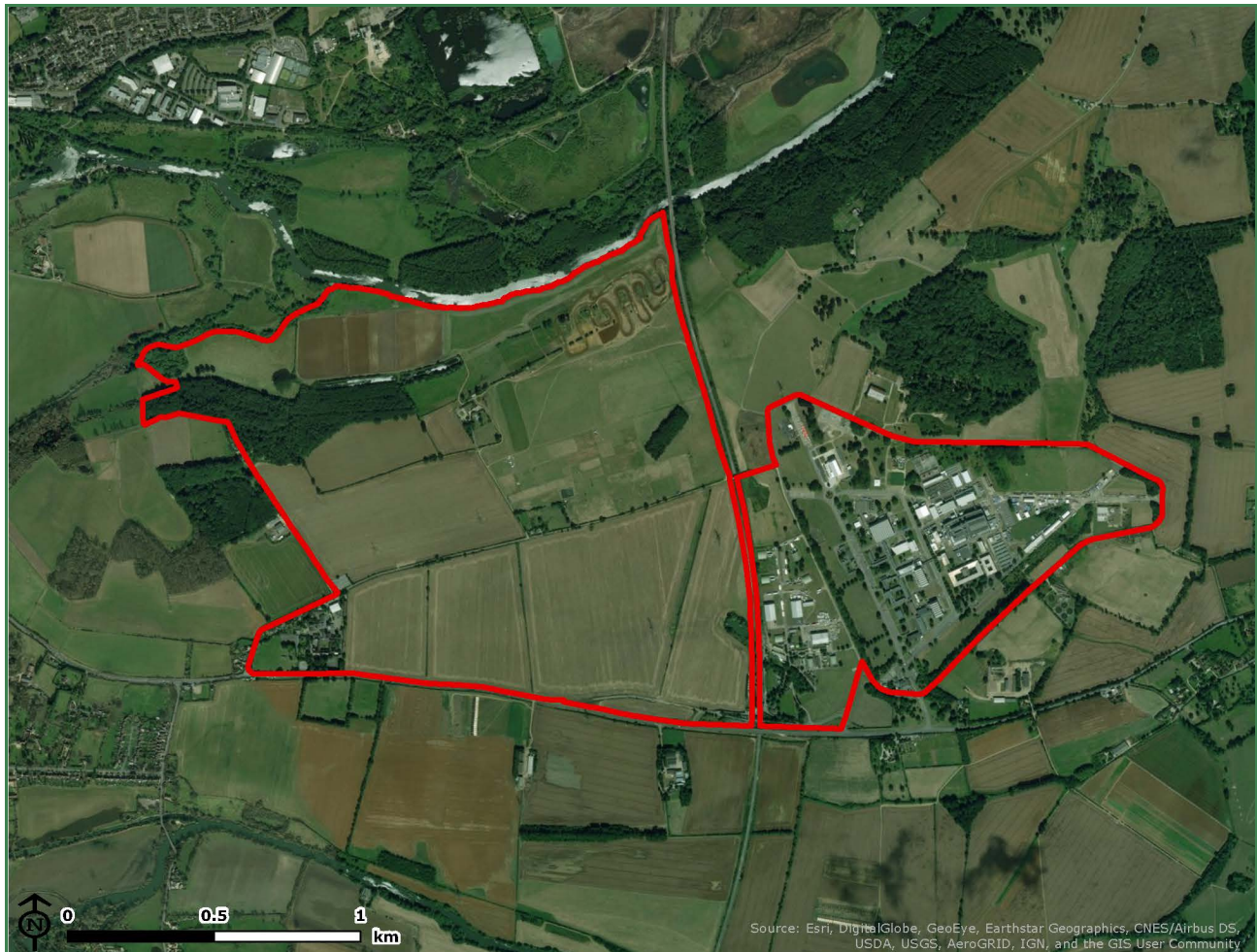
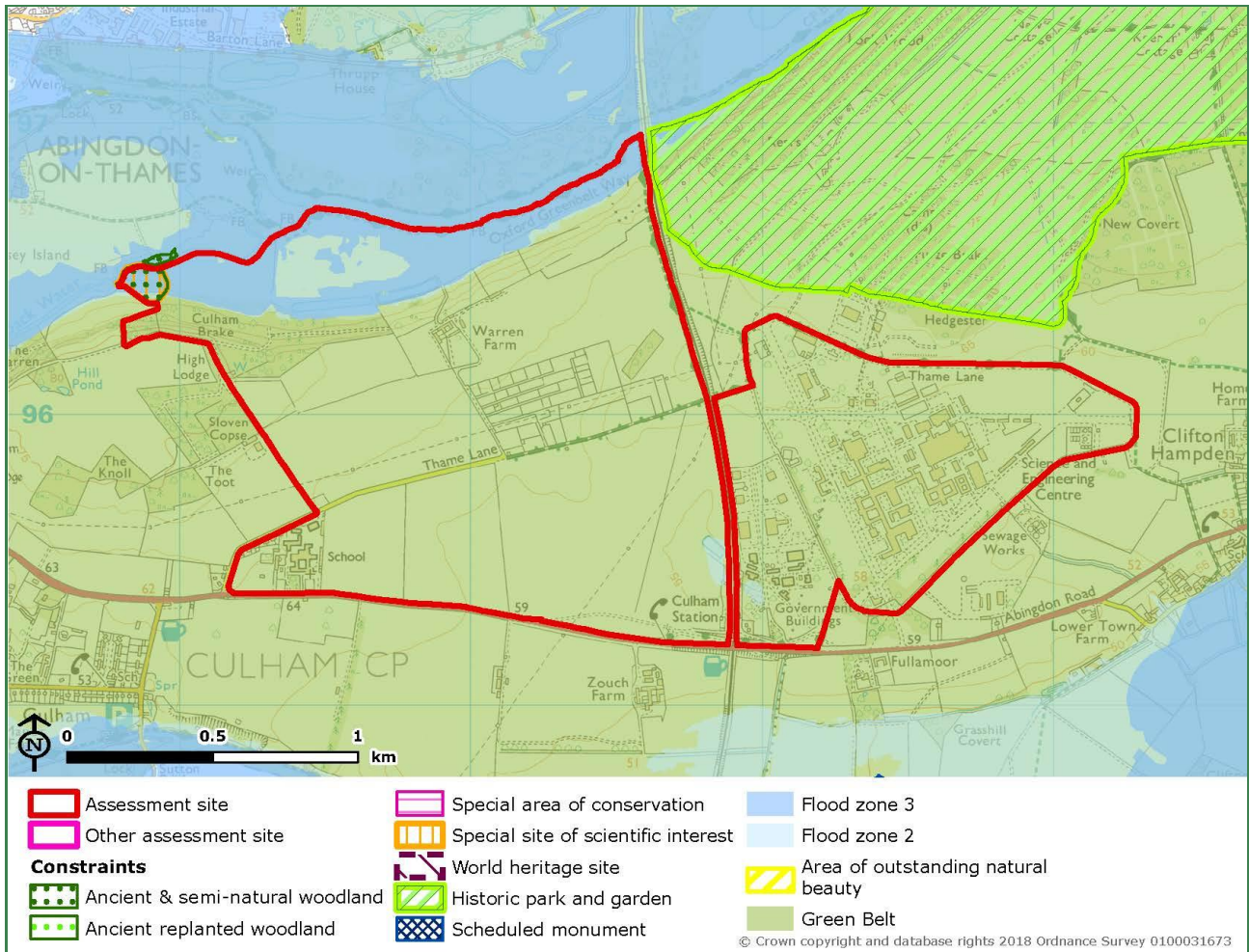
Green Belt Assessment of Strategic Sites in South Oxfordshire

Final Report

Prepared by LUC
December 2018



Site 08 - Culham



Site Description

A proposed site allocation to the west of Culham Science Centre, north of the A415 and south of the River Thames. Sloven Copse and the Europa School mark the western extent of the allocation. The proposal also includes release from the Green Belt of adjacent land that already contains built development: Culham Science Centre (to the east), the Europa School and an adjacent row of houses (to the west) and Culham Station, a pub and several dwellings to either side of the railway line (to the south). The proposed allocation area is mostly farmland, sloping gently uphill from the south to an east-west ridge. It is wooded to the west and occupied by a moto-cross track to the east - which drops down to the Thames floodplain. The Oxford to Didcot railway line separates the bulk of the proposed allocation from the commercial development at Culham Science Centre, but a smaller area between the Science Centre and the railway, most of which is occupied by Culham Number One Site (formerly an MOD facility - now a mixture of industrial warehouse buildings), is also included in the proposed allocation. Other built development includes the buildings of Warren Farm which are located close to the ridge crest, and an isolated dwelling at the centre of the site.

Relationship between site settlement and countryside

The intention is to create a new settlement, associated with Culham Science Centre, rather than to extend an area of existing inset development. Abingdon, to the west of the site, is the closest inset settlement, but is separated from it by Back Water and by the River Thames and its associated floodplain. Tree cover adds visual separation across the flat, valley floor landscape, and on the slope of the east-west ridge, therefore the site is much more associated with the surrounding countryside than with the town.

To the south the washed-over villages of Culham and Sutton Courtney lie between the site and Didcot; the gap is foreshortened by the very visible presence of the power station but the Thames, which loops round to the south, strengthens the gap. The Europa School on the south-western edge of the site has some urbanising elements but is in a rural setting and does not significantly impact on the surrounding countryside, and similarly the station and small group of adjacent dwellings and pub do not in isolation represent an urbanising influence.

To the east of the railway line, Culham Number One Site and Culham Science Centre incorporate areas of open space but also a considerable amount of built development that reduces Green Belt openness. Further east the well-treed Thames-side villages of Clifton Hampden and Burcot (both washed-over by the Green Belt) retain a rural character that does not compromise the gap between Culham Science Centre and the more urban village of Berinsfield.

Parcels

The site is assessed as three parcels:

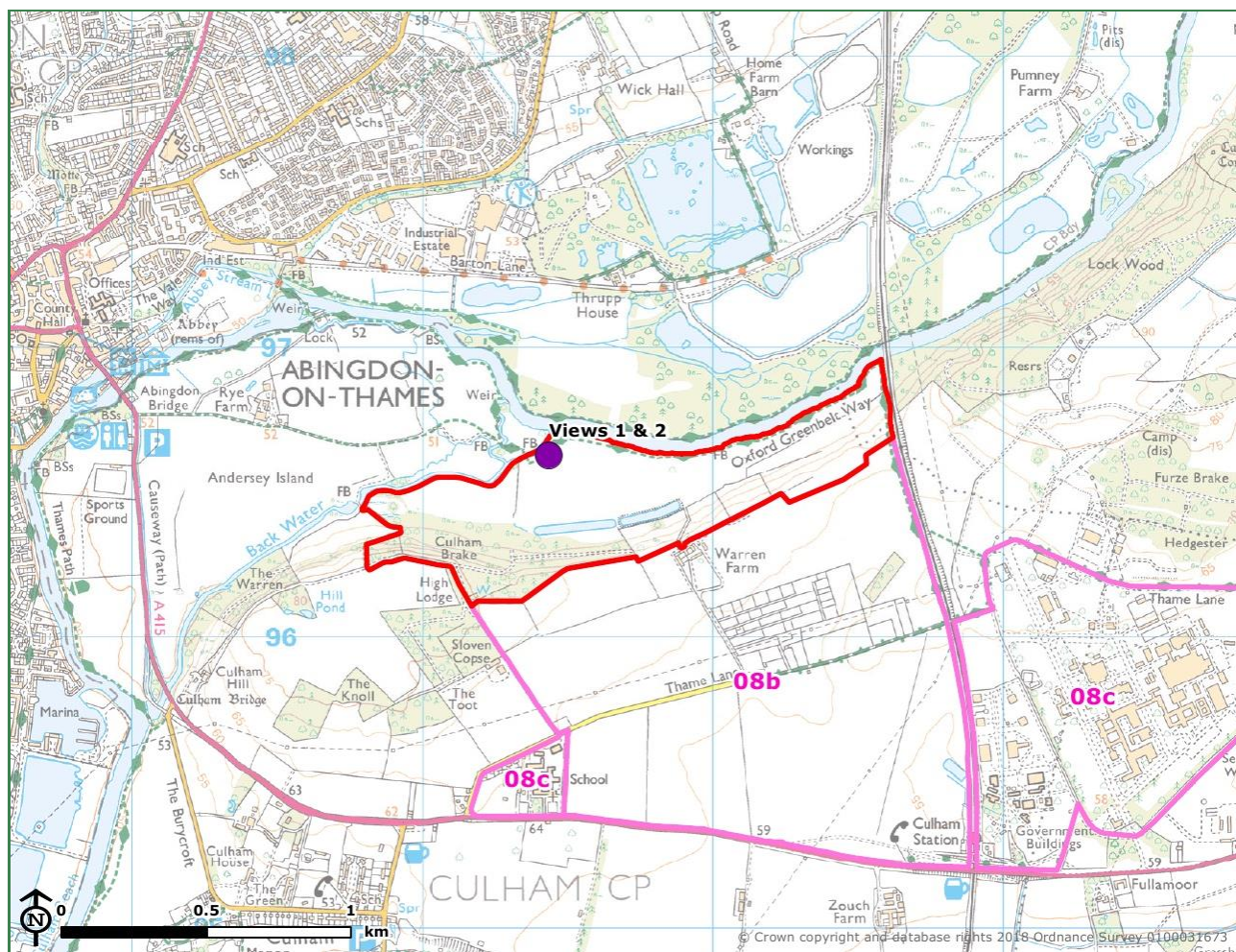
- Parcel 08a – includes the flatter, floodplain area between the river and the ridge that runs along the northern edge of the site.
- Parcel 08b – all of the land to the south of the ridge and west of the railway line.
- Parcel 08c – the area to the east of the railway line, including Culham Science Centre and Culham Number One Site.

Harm to Green Belt Resulting from Release

Scenario	Rating
Release of whole site	High
Comments	

Development would constitute encroachment on a sizeable area of undeveloped countryside, and whilst strong barriers and open space would remain to prevent the coalescence of towns, it would nonetheless represent a significant increase in the extent of urban development between Abingdon, Didcot and Berinsfield, particularly as perceived along the Abingdon Road between Abingdon and Berinsfield. Although boundary features are largely well defined, development would weaken the Green Belt to the south of the site between the A415 and the Thames, and to the north between the river and Abingdon. There would be some impact upon the historic setting of Oxford, as the River Thames which runs along the northern edge of the site is important to its setting, particularly for those approaching by boat or along the Thames path.

Parcel 08a



View 1: Looking eastwards from the western edge of the parcel. The River Thames runs along the tree line to the left of the picture.



View 2: Looking south towards the farm on the ridge that forms the southern edge of the parcel.

Contribution to Green Belt Purposes

Purpose	Comments
Purpose 1: Checking the unrestricted sprawl of large, built-up areas	The focus of the Oxford Green Belt is containment of the growth of Oxford, so this is the only settlement considered to constitute a 'large built-up area'. The site is located to the south of Abingdon and so does not contribute to preventing the sprawl of Oxford.
Purpose 2: Preventing the merger of neighbouring towns	The parcel is part of the Thames Valley floodplain, which constitutes a strong separating feature between Abingdon and Culham Science Centre. However the terrace slope and the loop of the Thames to the south and east of the site add further separation between Abingdon and towns to the south (Didcot) and east (Berinsfield).
Purpose 3: Safeguarding the countryside from encroachment	This parcel is undeveloped floodplain which has a strong relationship with the River Thames and the river valley and therefore relates more strongly to this than to any urban areas. The parcel therefore plays a significant role safeguarding the countryside from encroachment.
Purpose 4: Preserving the setting and special character of historic towns	The approach to Oxford along the Thames Valley is an important aspect of the City's historic setting, but this diminishes with distance.
Purpose 5: Assisting urban regeneration by encouraging the recycling of derelict and other urban land	All parcels are considered to make an equal contribution to this purpose.

Boundaries

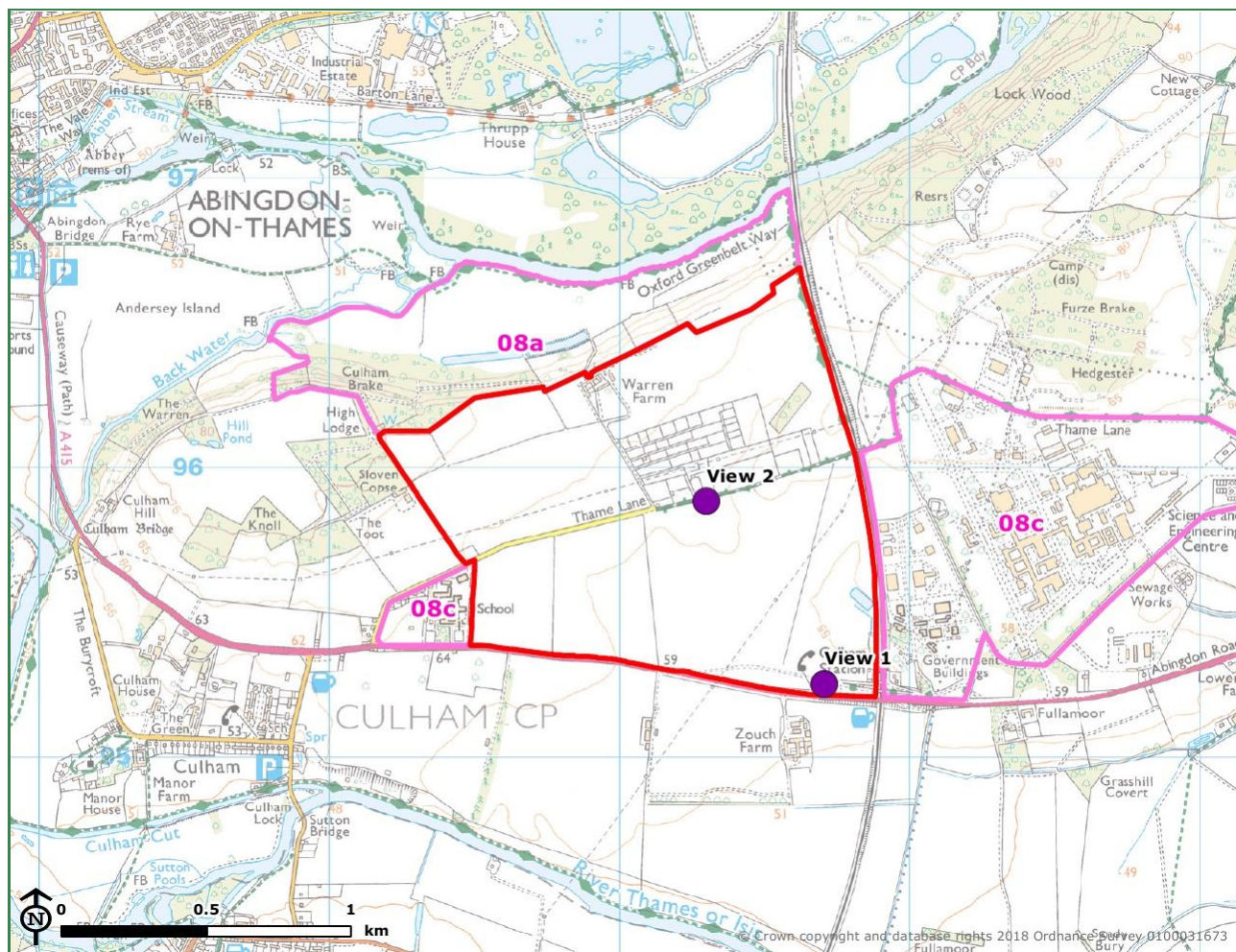
The parcel is clearly defined by the River Thames to the north, a field boundary hedge to the west, the railway line to the east and the ridge that runs through the site to the south. Although tree cover provides some visual containment, there is a strong relationship between the floodplain to the south of the Thames, within the parcel, and floodplain to the north between the parcel and Abingdon.

Harm to Green Belt Resulting from Release

Scenario	Rating
Release of whole parcel	High
Comments	

There is a strong relationship between the parcel and the wider Thames valley, so any development would represent significant countryside encroachment, weakening the wider integrity of the undeveloped river floodplain.

Parcel 08b



View 1: Looking north across the parcel from Station Road.



View 2: Looking south across the parcel from Thame Lane towards Didcot Power Station.

Contribution to Green Belt Purposes

Purpose	Comments
Purpose 1: Checking the unrestricted sprawl of large, built-up areas	The focus of the Oxford Green Belt is containment of the growth of Oxford, so this is the only settlement considered to constitute a 'large built-up area'. The site is located to the south of Abingdon and so does not contribute to preventing the sprawl of Oxford.
Purpose 2: Preventing the merger of neighbouring towns	This parcel occupies a large proportion of the gap between Abingdon and Culham Science Centre, in turn forming part of the gap between Abingdon and both Berinsfield and Didcot. The A415, the connecting road between the two settlements, increases their perceived proximity. However the meandering course of the Thames, with its associated terrace slopes and vegetation, helps to preserve a distinction between the settlements.
Purpose 3: Safeguarding the countryside from encroachment	The majority of the parcel is visually open, undeveloped farmland, and the isolated buildings within and alongside it do not constitute any significant urbanising influence. Culham Number One Site is a visible presence to the east, but the railway line preserves physical separation, and the Science Centre is largely contained by tree cover.
Purpose 4: Preserving the setting and special character of historic towns	The parcel has no significant relationship with Oxford.
Purpose 5: Assisting urban regeneration by encouraging the recycling of derelict and other urban land	All parcels are considered to make an equal contribution to this purpose.

Boundaries

The ridge, railway, woodlands and A415 form clear boundaries. But to the west there is no significant distinction between the South Oxfordshire

parcel and the Europa School, or the field to the north of it. The A415, although a distinct boundary feature, does not provide any visual separation between the parcel and similar farmland to the south. The hedged Thame Lane that runs through the centre of the site could form an alternative boundary to development northwards.

Harm to Green Belt Resulting from Release

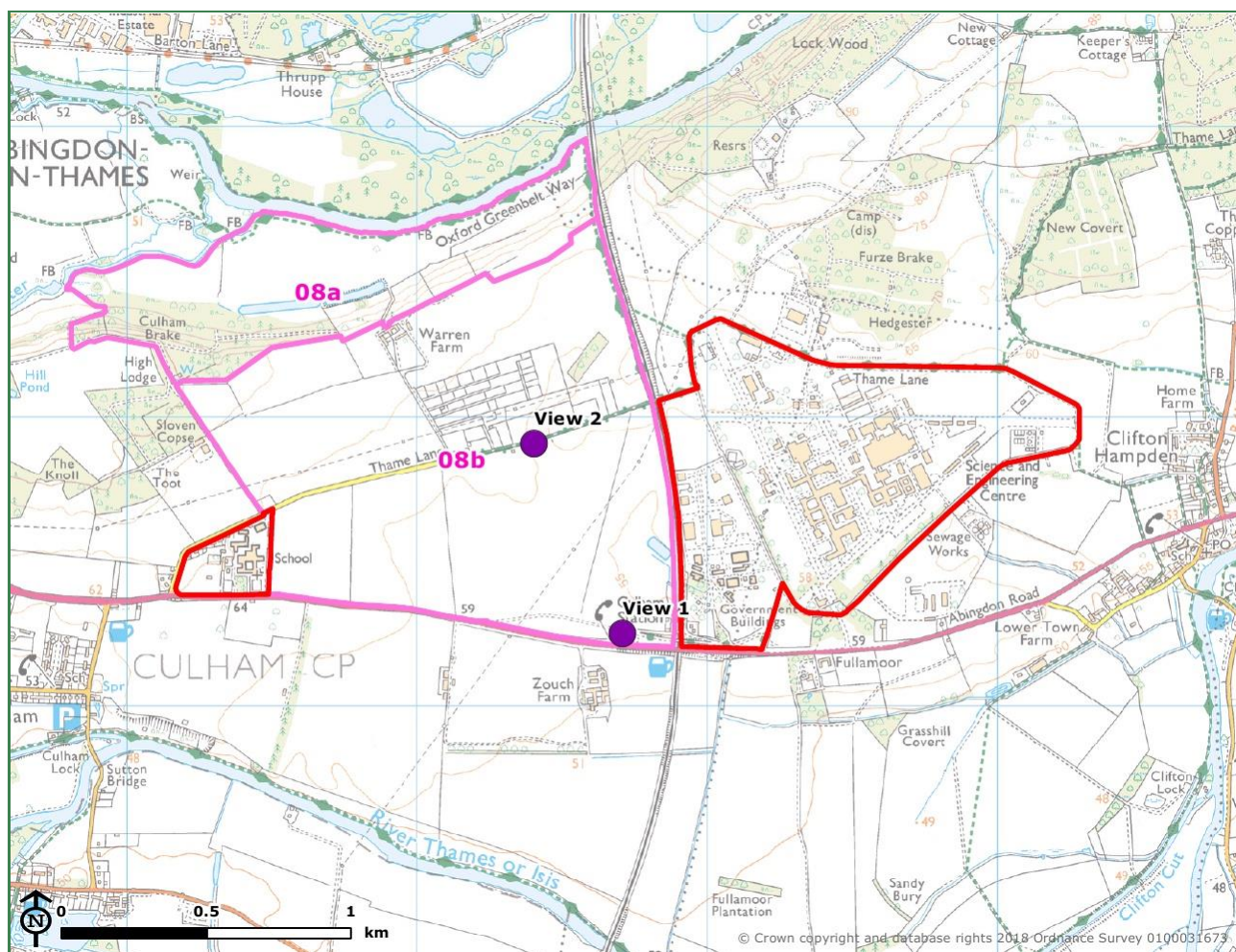
Scenario	Rating
Release of whole parcel	High
Comments	

Release of the parcel would represent countryside encroachment and would increase the urbanising containment of Green Belt to the south (which is already influenced by proximity to Didcot). Release of the parcel would also reduce the gaps between the settlements of Abingdon, Berinsfield and Didcot, although not to the extent that there would be any likelihood of coalescence. Release of this area would weaken the Green Belt contribution of the field to the north of the Europa School.

Scenario	Rating
Release scenario 2	Moderate high
Comments	

Releasing just the southern half of the parcel would reduce the degree of encroachment on the countryside by limiting the area affected, and by maintaining visual openness along the ridge above the river valley. It would also contain new development to an area already framed by existing development to the east and west. However, release of this section of the parcel would still affect the settlement gaps to the south.

Parcel 08c



View 1: Looking into the centre of the parcel from the western side of the railway.



View 2: Looking south east into the centre of the parcel from Thame Lane to the west.

Contribution to Green Belt Purposes

Purpose	Comments
Purpose 1: Checking the unrestricted sprawl of large, built-up areas	The focus of the Oxford Green Belt is containment of the growth of Oxford, so this is the only settlement considered to constitute a 'large built-up area'. The site is located to the south of Abingdon and so does not contribute to preventing the sprawl of Oxford.
Purpose 2: Preventing the merger of neighbouring towns	The extent of development within the parcel limits its contribution to maintaining settlement separation, and the meandering course of the Thames, with its associated terrace slopes and vegetation, helps to preserve a distinction between Abingdon and the Science Centre (which in turn forms part of the gap between Abingdon and both Berinsfield and Didcot).
Purpose 3: Safeguarding the countryside from encroachment	Culham Science Centre and Number One Site - Development in the western part of this parcel (Culham Number One Site) is relatively low in density, and does not have a significant urbanising influence on the wider countryside, but it has a stronger association with the adjacent Science Centre than with the open land to the west of the railway line. The Science Centre is more densely developed, but still retains sufficient openness to make some contribution to this Green Belt purpose. Europa School and adjacent dwellings - In isolation these are not of a scale or density to represent a significant urbanising influence.
Purpose 4: Preserving the setting and special character of historic towns	The parcel has no significant relationship with Oxford.
Purpose 5: Assisting urban regeneration by encouraging the recycling of derelict and other urban land	All parcels are considered to make an equal contribution to this purpose.

Boundaries

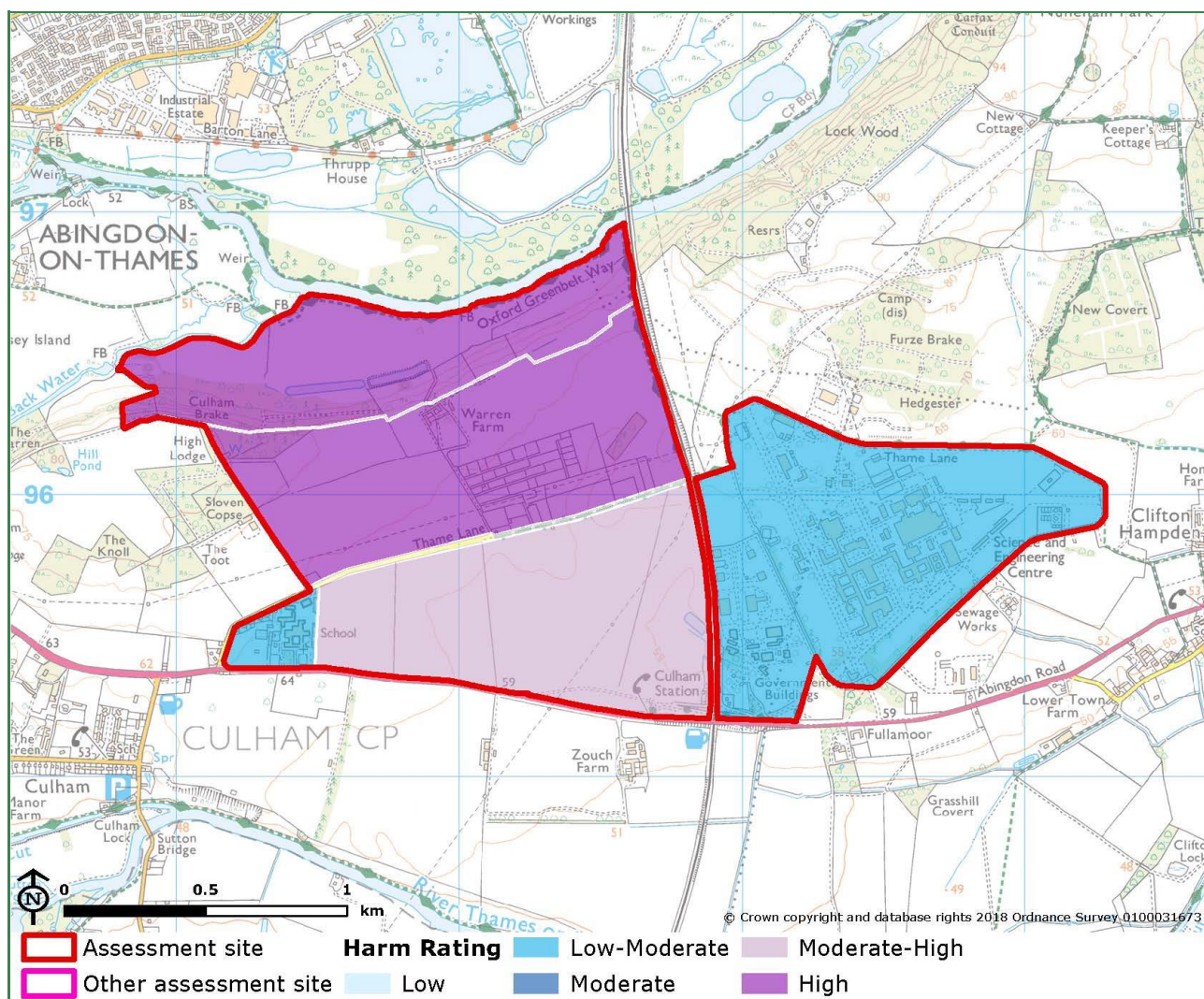
The railway line, A415 and Thame Lane form clear boundaries.

Harm to Green Belt Resulting from Release

Scenario	Rating
Release of whole parcel	Low moderate
Comments	

The extent of existing built development to the east of the railway line, and containment by the railway line, combine to limit the effect that an intensification of development at Culham Number One Site would have on the wider countryside. Although in isolation the Europa School and adjacent dwellings do not represent a strong urbanising influence, their release from the Green Belt in the context of release of the proposed allocation to the east would cause relatively low additional harm.

Harm to Green Belt Resulting from Partial Release of Site



Summary of Assessment Findings

- 4.8 **Table 4.1** shows the harm ratings given to each parcel or subdivision thereof. Where multiple development scenarios are identified for a parcel, the scenario with the lowest harm rating is listed. On this basis, out of a total geographical area of 1033.6 hectares (ha) of Green Belt land assessed within South Oxfordshire:
- 557.4ha (54%) rated as 'high' in terms of harm to Green Belt resulting from release.
 - 156.5ha (15.1%) rated as 'moderate-high' in terms of harm to Green Belt resulting from release.
 - 185.9ha (18%) rated as 'moderate' in terms of harm to Green Belt resulting from release.
 - 133.7ha (12.9%) rated as 'low-moderate' in terms of harm to Green Belt resulting from release.
- 4.9 **Figure 4.1** represents these ratings graphically. The relatively small areas rated 'low-moderate' have a strong association with existing urbanising built development. With the exception of a contained area at Sandhills, a 'moderate' or greater level of harm is associated with any expansion of the City of Oxford into South Oxfordshire.
- 4.10 'High' or 'moderate-high' levels of harm would result from any expansion northward, where Bayswater Brook and rising ground beyond it form a strong urban edge, and a key part of the City's historic setting. Expansion east and south that results in significant reduction in separation between the City and the nearby villages of Horspath and Garsington would likewise result in 'high' or 'moderate-high' levels of harm.
- 4.11 'Moderate' harm to Green Belt purposes would be caused by expansion into urban-influenced land south of Oxford that, whilst representing a degree of urban sprawl and encroachment on countryside, would retain settlement gaps and retain a distinction from the higher ground that is more important in defining the City's historic setting.
- 4.12 Away from Oxford a 'high' or 'moderate-high' level of harm would result from any sizeable encroachment in open countryside – i.e. at Culham or Berinsfield – although less harm would result from release of the existing development at Culham Science Centre and the adjacent Culham Number One Site.

Site Reference	Parcel Reference	Area (Ha)	Harm rating
01 – Lower Elsfield	01	104.0	High
02 – Wick Farm	02a	85.1	High
		18.5	Moderate High
	02b	17.5	High
	02c	7.0	Low Moderate
03 - Thornhill	03	24.7	High
04 – OBU Wheatley	04	24.8	Low Moderate
05 - Northfields	05a	50.5	High
	05b	25.3	High
		49.3	Moderate High

Site Reference	Parcel Reference	Area (Ha)	Harm rating
		20.1	Moderate
06 – Grenoble Road	06	152.3	Moderate
07 - Berinsfield	07	108.2	High
		10.7	Moderate High
		13.5	Moderate
08 - Culham	08a	59.8	High
	08b	82.3	High
		78.0	Moderate High
	08c	101.9	Low Moderate