

Longfield Solar Farm Draft position statement on Landscape and Visual Impact

Prepared for: Essex County Council,
Chelmsford City Council, Braintree District
Council

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Appendix 1

Summary of previous consultation comments and responses

Have the correct studies been carried out using recognised methodology?

1. Methodology - Landscape and Visual Impact Assessment

It is considered that the landscape character and visual impact assessment have been carried out using the methodology set down in the Guidelines for Landscape and Visual Impact Assessment (3rd Edition) which is the current commonly applied professional guidance.

Definition and extent of local landscape character areas has been agreed with the LPAs and used in the assessment to give a more fine-grained approach to the LVIA.

Note there is one point of the LVIA that we do not agree with the Longfield assessment with reference to the Ter Valley – see below

2. Residential Amenity Assessment

Initially we raised whether the proposals reached the threshold for residential amenity assessment and the Longfield team undertook a review of the proposals and made alterations to reduce impact views from and setting of residential properties. It was then agreed that the revised proposals did not require a residential amenity assessment.

3. Cumulative Assessment

The proposals have been assessed using current methodology – although this is less defined than standard LVIA methodology. The ES states that worst case scenario effects (‘the Rochdale envelope’ approach) have been applied in the assessment.

Other developments in the vicinity of the Longfield site have been identified in the Environmental Statement and an assessment has been carried out of their impact in relation to the District Landscape Character areas and the Local Landscape Character areas defined as part of the ES.

Have the previous consultation comments been addressed?

Most previous comments have been addressed satisfactorily (Refer to Appendix 1 table for details of previous comments). Two areas of concern are noted below.

1. Ter Valley North

Our assessment is that there will be a moderate adverse impact for a short stretch of the Ter Valley to the west of Sandy Wood. Our view is that field PDA1 should be removed from the scheme to retain the valley character alongside the Essex Way footpath – see notes in sections on landscape and visual impact.

2. Protected Lanes – Impact

The Landscape masterplan and discussions had focussed on enhancement to hedges alongside the protected lanes and this is illustrated on the Landscape Masterplan. The Vegetation Removal Plan in the ES appears to show removal of vegetation along part of Noakes Farm Lane.

What is the overall likely harm of the proposal to the Landscape Character?

1. Vegetation removal

ES Figure 10-15 illustrates the potential vegetation removal. Across the area defined by the order limits there would be 450.6m² of hedgerow loss and 469.1m² of woodland loss (see Chapter 6 in ES page 10-52).

The majority of the removal is shown as breaks through existing hedgerow, otherwise the existing field pattern will remain and be enhanced with additional planting.

Mitigation planting proposed in compensation across the site with advance planting in selected areas. The ES states that the scheme will create new green infrastructure:

8.6km of native hedgerow with trees

20.6km of native hedgerow enhancement (gapping up and infill planting)

200 new trees

23.2ha of land for natural regeneration

More than 3ha for new native woodland in 25m wide copses

0.6ha of native linear tree belts

272ha of species rich grassland

In time, these mitigation measures will provide **enhanced** green infrastructure across the site.

2. Protected Lanes

Along part of Noakes Farm Lane vegetation removal is be proposed to each side of the carriageway. This part of the Lane is designated as a Protected Lane in BDC's emerging Local Plan under policy LPP 46 and, as such, the policy is clear that any proposals that would have a materially adverse impact on the physical appearance of these protected lanes will not be permitted.

We have discussed this in detail with the Longfield Team. The vegetation removal is shown to allow for visibility splays during construction of the solar park where vehicles will be crossing Noakes Farm Lane.

We understand that the intention is to manage the roadside vegetation on the north-south length of the lane by mowing the verges during the construction stage to improve visibility. This is more landscape management than vegetation removal.

Where the Lane turns to run east-west the current proposal is to remove a length of hedgerow for approximately 93m. The hedgerow is not continuous at this point so approximately 42m of hedge planting would be removed. We understand that the trees would be retained and a replacement hedgerow planted following construction, nevertheless, this would adversely impact the physical appearance of the protected lane.

The hedgerow has not yet been surveyed in detail, although we understand that a detailed survey of the hedge and trees is to be undertaken. There may be alternatives to hedgerow removal which

should be considered. The visibility splay lengths are generated by traffic speeds so a lower speed limit during construction could reduce the requirement. Traffic management of vehicles crossing the Lane could also avoid the need to remove the hedge. Management of the hedgerow by facing up or cutting back to improve visibility could also be explored.

As the plans stand at present the proposals are contrary to the protected lanes policy.

3. Loss of open landscape

The solar farm would mainly cover the agricultural fields which make up the rolling landscape of the Terling and Boreham Farmland Plateau. This would result in a loss of the open character which can be appreciated from the well-used footpath network in the area (see visual impact below).

4. Level of Harm in relation to the district landscape character areas (DCLAs)

Two district LCAs are directly impacted by the proposals: the Terling Farmland Plateau and the Boreham farmland Plateau. Both will be impacted by the proposals.

5. Terling Farmland Plateau B17

The majority of the proposed development falls within the Terling farmland Plateau. In the District LCA this character area is having the following key characteristics:

- Rolling arable farmland
- Irregular pattern of medium to large scale fields
- Scattered settlement pattern with frequent small hamlets, typically with greens and ponds. Network of narrow winding lanes
- Mostly tranquil away from the A12 and A131

No sensitivity rating is given in the DLCA, but the farmland plateau falls within the Essex County Landscape Character area B1 Central Essex Farmland. This character area is given a sensitivity rating of medium in terms of utilities developments, but the Terling / Fairstead area is particularly noted in the LCA as having a high sensitivity to most types of development or change.

Both the county and district LCAs were carried out some years ago and the assessment of likely developments does not mention large scale renewable energy projects as these were probably not considered likely at the time.

Designated ancient woodlands Ringers Wood, Porters Wood and Scarlett's Farm are within the order limits. Ancient woods at Sandy's Wood and Lost Wood are adjacent to the order limits. Replanted ancient woodlands at Toppinghoehall Woods are adjacent to the order limits.

Listed farmsteads are scattered across the area at Leylands Farm, Whitehouse farm, Scarletts Farm, Sparrows Farm, Rolls Farm, Ringer's farm, Birds farm and Noak's Farm.

The combination of narrow lanes, listed farmsteads, ancient woodlands and agricultural land use gives the area a sense of time depth and relative tranquillity once away from the Waltham / Boreham Roads.

Our position on harm to the District LCA: Terling Farmland Plateau

Overall, a medium sensitivity to change is a reasonable general assessment of the whole character area. It includes busier and more built-up areas such as Great Leighs, the Waltham Road and part of

Hatfield Peverel. The solar farm will cover a relatively small part of the character area and the noticeable effects of the installation of the solar arrays will decline once mitigation planting is established.

Within the Terling Farmland Plateau area it is recognised in the County LCA and from the desktop and field work which has been carried out that the area around Terling has a greater sensitivity. The relative tranquillity and historic features (farmsteads, ancient woods) and presence of the River Ter contribute to the higher sensitivity of this part of the character area.

The physical effects of the Longfield development would be the conversion of arable farmland to solar farm with fields of solar arrays, fencing, CCTV and battery storage all located within the character area. The effects will be long term (for more than 10 years) but would also be reversible at the end of the consent period in 40 years.

Our preliminary position statement on the character effects for most of the area *without mitigation* is that a **significant adverse effect** would result from the proposals. The mitigation proposals would reduce this to a **moderate adverse level** of effect during operation of the site (definition: partial reversible alteration to the landscape receptor over a wide area). See also specific notes on River Ter below.

6. Boreham Farmland Plateau B21

The plateau is described as having the following key characteristics:

- Irregular field pattern of mainly medium sized arable and pastoral fields marked by hedgerows, banks and ditches
- Small woods and copses provide structure and edges in the landscape
- Scattered settlement pattern with frequent small hamlets
- A concentration of isolated farmstead
- Network of narrow winding lanes

The dominance of the A12 road corridor is noted in the study and overall, the area is given a low to moderate sensitivity to change.

Impact of the Longfield proposal on the Boreham Farmland Plateau

The south-eastern extents of the order limits cross into the Boreham Farmland Plateau where the connection is made from the solar array fields through to the Bulls Lodge sub-station extension. No solar arrays are proposed for this character area and cable routes will be below ground.

The main impact will be the local extension to the substation and the access works needed to undertake the extension works.

Our position on harm to the Boreham Landscape Character Area

Our preliminary position statement on the character effects for the Boreham farmland Plateau is that there will be a **minor adverse effect** during construction and decreasing to **negligible** once construction works are concluded.

7. Local Landscape Character Areas (LLCAs)

The Longfield ES further divides the landscape character areas to provide a more fine-grained assessment of the character impacts. Nine separate character areas have been defined within the order limits and surrounding countryside (see Figure 10-7 in ES Figures). These character areas were agreed with the LPAs.

The physical extent of the solar farm falls into four of the LLCAs (see below). These have been assessed for landscape sensitivity and effects in the ES (Appendix 10E in volume 2) and the assessment findings, stated in the ES, during operation of the scheme are summarised below:

03 Ter Valley North - high sensitivity – low magnitude of effect (due to only very small incursion of physical area of solar arrays 1%)- minor adverse significance in construction reducing to negligible in year 15 (due to mitigation planting establishing)

02 Western farmland Plateau – medium sensitivity - medium magnitude of effect (15% of character area) - moderate adverse impact in year 1 reducing to minor adverse impact in year 15 (due to mitigation planting)

07 Toppinghoehall Woods – medium sensitivity- moderate adverse effects in year 1 reducing to minor adverse by year 15 (due to mitigation planting)

08 Boreham North – medium sensitivity - low adverse effects in year 1 with negligible adverse effects in year 15

We agree that following the methodology proposed and agreed for the assessment that the above is a reasonable conclusion if the character areas are assessed in *isolation* from each other. When considering the Ter Valley and its setting, we reach a different conclusion to that stated in the ES.

Our assessment is that the interplay between the Ter Valley North Local Landscape Character area and adjacent Western Farmland Plateau to the south of the river that should not be ignored. The lower slopes of the Western Farmland Plateau provide part of the setting for this northerly stretch of the River Ter.

The Ter valley is recognised as a highly sensitive landscape in the LCA studies at all scales. The solar arrays would be visible from the Essex Way footpath which runs along the valley floor at this point for some years before mitigation planting is fully established and the mitigation planting cannot be continuous along the valley side because of the presence of pylons with overhead cables which span across the valley and present a detracting factor in what is a sensitive view.

The ES concludes that there are insignificant adverse effects on the upper Ter Valley North and strictly speaking this is true if assessment is confined to the boundaries of the character area. Our conclusion (because of the loss of view through to farmland and the visual intrusion of the solar arrays) is that in year 1 there would be a moderate adverse effect on the environs of the River Ter at this point which would reduce to a minor adverse effect once the planting is established by Year 15. This **moderate adverse effect** could be eliminated if field PDF1 was removed from the solar arrays area.

Cumulative harm from Longfield combined with other major developments

1. Cumulative Effects considered in the ES

The Longfield ES identifies 40 proposals in the vicinity of the site which have passed their threshold test for shortlisting for inclusion in the cumulative assessment. The proposals are located with marker numbers on the map but have not been spatially plotted on the mapping in the ES.

2. Boreham Farmland Plateau – cumulative effects

In landscape character terms, the potential proposals with the widest impact on this character area are the North-east Chelmsford urban extension and the Chelmsford Garden Village which are both located, along with the proposed eastern by-pass, between the existing settlement edge and the proposed Longfield Solar Farm. The site allocation for the housing to the east of Chelmsford extends to approximately 1km to the east of the Longfield site with a new country park allocation extending to around 200m of the Longfield site at its furthest extent. The existing gravel workings to the west of the Waltham Road provide a 'break' between the Longfield Site and the sites allocated for country park and housing. The effect of the Longfield proposals on the farmland plateau is minor reducing to negligible so the development of Longfield would result in negligible cumulative effect within the LCA. The effect of the Chelmsford north-eastern urban extension and associated infrastructure would have a much greater landscape character effect than the Longfield proposals in this character area. We agree with this assessment for the Boreham Farmland Plateau.

3. The Terling Farmland Plateau

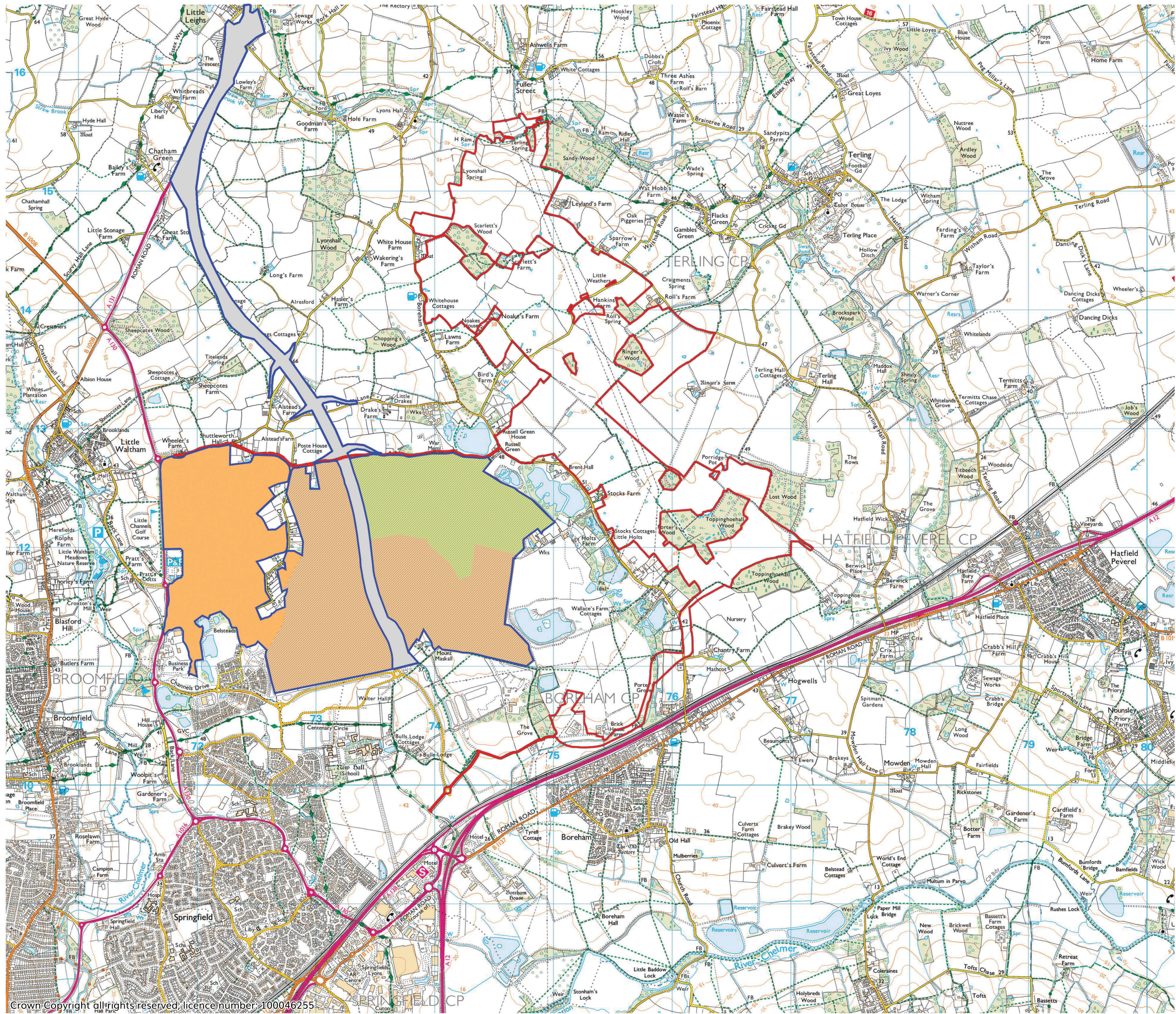
The ES assesses the cumulative effects of the Chelmsford north-eastern by-pass, the Sheepcoates Farm Quarry and the Great Leighs local plan allocation for housing as having a bearing on the magnitude of effects when combined with Longfield. The assessment is that there would be a **moderate adverse effect** if all the developments went ahead. We agree with this assessment.

4. Combining the character effects for Boreham and Terling Farmland Plateaux

The ES falls short of describing the combined cumulative effect across the two District LCAs and spatially mapping of the Chelmsford North-Eastern Urban Extension and other developments in combination with the Longfield proposal.

When the major developments of the North-eastern Urban extension to Chelmsford, the Chelmsford Garden Village and the Chelmsford Northern By-pass and Longfield are mapped it is clear that if all developments went ahead there will be an erosion of the countryside buffer between Chelmsford and Terling. Assessment of the impact of the proposed major developments will only be undertaken at the time that they come forward as part of the planning process, however, it is likely that any assessment would find adverse impacts from the development of open countryside to a major housing scheme or new infrastructure project. When combined with Longfield's effect on the Terling Farmland plateau the cumulative effect is likely to be a moderate adverse effect on the two character areas.

The following map illustrates the spatial arrangement of the proposed major developments.



- Order Limits of Longfield Solar Farm
- Proposed adjacent development
- Proposed country park
- Proposed garden community
- Minerals and waste site
- Proposed Chelmsford North-East Bypass corridor

Cumulative Development Plan

What is the overall harm in visual impact terms?

The summary of significant residual visual effects is given in the ES Volume 1 Chapter 10 (see pages 66 to 72). The assessment of the views has been carried out using the standard methodology and Type 1,2 and 3 visuals have been produced for key views identified and agreed with the LPAs.

In year 1 of operation 11 of the viewpoints are assessed as being subject to **moderate adverse** effects and 3 viewpoints are assessed as being subject to **major adverse effects**. Both levels of effect are considered significant in ES terms.

By **year 15**, the ES assessment reduces the number of views with major adverse impacts to viewpoint 9 and viewpoint 16 and moderate adverse to only viewpoint 5.

Having reviewed the assessment and Type 3 visuals we have one difference in our assessment of the impact of the proposals on the views:

Viewpoint 45 – from the Essex Way footpath north of the River Ter looking south:

ES assessment is that the mitigation planting would reduce the impact on this view from moderate adverse in year 1 to minor adverse in year 15. Although the proposed planting will provide screening it is our view that enough of the solar farm is still visible in year 15 for the impact on the view to continue to be assessed as moderate adverse. Potentially a change to the proposed mitigation planting to include more trees as well as hedgerow would result in a benefit and a change from moderate adverse impact.

Overall, the mitigation planting proposed is assessed to have a positive impact on the visual impact of the proposals and will successfully screen the solar arrays and other features for most of the viewpoints. There will, however, be a loss of longer views and the appreciation of the open character of the landscape from footpaths due to the mitigation planting.

APPENDIX 1 Longfield Solar Farm – Landscape and Visual Impact – Summary of matters raised with the developer and responses during the consultation period

Date	Matter raised	Developer Response	WWA comment on response	Landscape and Visual Impact – WWA opinion on residual matters
23/6/2021	Initial Comments on PIER and technical content:			
	The Landscape Institute have published new guidance on 'Assessing Landscape Value Outside of National Designations' (LI Technical Guidance Note 02/21). This is intended to supplement existing guidance but is more up to date and detailed than Box 5.1 of GLIVIA which is cited in the PIER. The landscape value assessment in our view should be carried out using the new technical guidance note	Accepted		Check EIR when issued
	Residential Visual Amenity Assessment (RVAA LI Technical Guidance Note 02/2019) has not been carried out. This should be carried out for multiple residences along the western boundary of the site and individual farmsteads highlighted on the attached drawing.	Did not think that RVAA was necessary unless effects were predicted to be significant. But, agreed to undertake more study work on the effects on individual properties	Agreed this was a good way forward	Resulted in amendment of scheme. Agreed that RVAA threshold not met following scheme redesign so not required in EIR
	It would be helpful to have direction of views on the viewpoint map indicated with an arrow. We appreciate that this may make the map difficult to read at the scale it is currently shown and suggest that the map is split into smaller sections for greater accuracy and legibility	Agreed to look at graphics		Check EIR when issued
	Interpretation of impact would be greatly aided if the extent of the solar arrays was shaded on the viewpoint photos	Did not agree to do this as felt it would be too stark a portrayal of development. Photomontages to be prepared instead.	Agreed this would be acceptable	
	From our fieldwork we have established 3 key views which have not been assessed (view north to Lyons Hall Church; two views south from west of Waltham Road)	Agreed to assess the viewpoints		Check EIR when issued
	The Outline Landscape masterplan should show the contours so that the relationship of the proposals to the landform can be more easily understood	No direct response on this but not currently on Outline Landscape Masterplan		To review at final EIR
	No sectional analysis from viewpoints at year 15 has been undertaken to test the impact of the mitigation proposals.	No direct response on this		
	Construction and Year 1 assessments are predicted for winter, whereas Year 15 assessments are predicted in summer months. What is the reason for the different approach?	Made the point that the winter views would be difficult to show on photomontages	Agree, point withdrawn	
	There are currently no photomontages illustrating the predicted visual effects of the development. Verified view winter visualisations should be provided for key viewpoints (to be agreed with LPAs) to aid with visual impact assessment.	Will be undertaken for final EIR	Some drafts have been shown at meetings	To review final EIR
	Following our field work, we have reviewed the applicants Local Landscape Character Areas mapping (Sheet Number Figure 10-7) and we assess that the 'Ter Valley North' character area drawn by the applicant is too close to the river on the south side. Between Sandy Wood and Lyons Hall. The topography and alignment of the River Ter suggest that the edge of the character area should follow the 50m contour.	Request to review on site.	Review undertaken and boundary line agreed. Check final content in EIR	Refer to later comments in this summary on impact on Ter Valley

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23/6/2021	Initial Responses to the Landscape and Visual Impact of the proposed development			
	Ter Valley – Omitting the northern-most field (PDA1) from the scheme (south of Sandy Wood) would preserve the valley floor and lower slopes, reducing effects on the Ter Valley. This would also lessen impact on Leylands Farm and reduce harm to wider setting of the Grade 1 listed church at Lyons Hall.	PDA1 is required for the solar farm; additional mitigation and advance planting are identified to reduce the visual impact.	Although other fields have been taken out of use for solar arrays, they have held firm on wanting to use this field offering advance planting and additional mitigation planting. The additional planting will go some way towards screening the arrays especially from the valley floor.	There will be a residual adverse character and visual impact to views from Fuller Street and the Essex Way (see comment below on Essex Way).
	Views to the proposed battery storage have generally been well considered. However, views from receptors using the public footpath the north-west have not been fully assessed. We suggest an additional viewpoint and that more mitigation may be required to screen views.	Additional hedgerow planting alongside footpath proposed to screen view.	Improved mitigation.	
	Mitigation is required higher on slopes to screen from long views from Fuller Street.	Latest masterplan includes hedge, woodland, scrub and tree belt to the south of PDA1. Note: some restrictions to the mitigation because of overhead cables from existing pylons	Much improved mitigation	Levels on the valley sides mean that the solar arrays will still be visible from the slopes to the north of the Ter, with some views from Fuller Street
	Scarlett's farm and Noakes Farm both Grade II listed are left as islands in landscape character terms and fields to the west have impact on properties on Boreham Road. Could the fields down to Noakes farm be omitted? This would preserve the relationship between the farmsteads at Noakes and Scarlett's Farm	Masterplan has been revised to pull back solar arrays from around the farmsteads and allow for connectivity to be perceived.	Much improved setting for the farmsteads	Residual character and visual impacts still exist in the wider setting.
	Consideration of setting for ancient woods – they are a heritage feature as well as Buildings (Scarlett's, Sandy and Ringers Woods are all classified as ancient woodlands)	Natural regeneration buffer proposed to woodlands	This will protect the trees but there remains a character and visual impact on the woodlands and their relation to the setting	Sandy Wood is on the edge of the solar farm and therefore the effect is only on the SW corner. The changes to the latest Masterplan around Scarlett's Farm have reduced the impact on Scarlett's Wood as it can now be perceived in relation to the farm and the surrounding fields as the area of solar farm has been reduced in this area. Ringers Wood is surrounded by solar array fields.

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Date	Matter raised	Developer Response	WWA comment on response	Landscape and Visual Impact – WWA opinion on residual matters
23/6/2021	The proposed development will lead to a considerable change to the perception of the landscape experienced by receptors using public footpath routes. Are there opportunities to design 'break' areas within the arrays that allow for a visual and perceived rest from the considerable extent of built form?	Agreed to look at this	Revisions to the masterplan mean that the footpath running west – east through Scarlett's farm now only runs between arrays at each end. The footpath running by Ringers Wood is only surrounded by arrays on both sides for a relatively short length (PDA 17 and PDA 18). The footpath which runs north south through Porters wood has benefitted from wider set backs.	There will inevitably be a change to the experience of using the footpaths which currently run through open countryside.
Site visit 5/10/2021 and Meeting 15/10/2021	Effect on protected lanes – Noakes Farm Lane is located within the solar farm for much of its length; the solar farm runs along the south of Rolls Farm Lane	Agreed to assess on site	WWA independently assessed the impact on the lanes and then met with Aecom on site to review. Agreed that the affect on the lanes is related to their setting not to physical changes or impact on the lanes themselves.	Mitigation is proposed on the developer's masterplan. The approach varies because the condition and intactness of the hedgerows also vary. The approach appears sound and will in most cases screen the solar arrays from users of the lanes. On Noakes Farm Lane where there are good long distance views to the south and spaced out hedgerow trees our view is that it is better to maintain the longer distance views, even though they will have solar arrays in the foreground. This will maintain the more open character of the lane for the future. If the arrays were totally screened by hedgerow the character of the lane would be changed and the views would be lost in perpetuity. Traffic implications to be reviewed by highways consultees
Site visit 5/10/2022	View from Essex Way west of Fuller Street. The fields to the south of Terling Spring and West of Sandy Wood, in which arrays are proposed and will be visible. Query as to whether this affects the view of St Mary's Church	Assessed on site with follow up photomontage shown at meeting. There will be landscape character impact and visual impact to this view.	The view from the Essex Way is a wide panorama and the arrays will be visible for only part of the view. The view towards the church is not affected.	There is very little which can be done to mitigate the cross-valley view of the proposed arrays in fields PDA 1 and PDA 2. It could be argued that this view is not a pure countryside view now because of the presence of the pylons and power lines.