

WORKING DRAFT VERSION A
Table XX: Alternative Options and Measures to Achieve the Core Strategy Objectives and Broad Based Appraisal of SA/SEA Objectives 1, 2 and 3

Option	Option is likely to have a positive effect	Option would have a positive or neutral effect with additional measures / mitigation, negative effects without	Option is likely to have no effect / neutral effect	Option is likely to have a negative effect	Policy effect is uncertain at this stage (could be any of the above)
A1	<p>1. Protect and enhance the quality and distinctiveness of the areas' biodiversity (native plants and animals) and geodiversity.</p> <p>Comments: Whilst unrestrained dispersal may be constrained by infrastructure and development control policies and within recognised significant environmental constraints (e.g. designated sites), this option may still have significant adverse cumulative effects in the longer term with regard to the districts biodiversity (already with a low baseline) through habitat loss caused by land take, habitat isolation and fragmentation, increased disturbance, alteration of hydrology, pollution, introduction of non-native species, edge effects etc. Climate change may exacerbate any effects.</p>	<p>Comments: Whilst unrestrained dispersal may be constrained by infrastructure and development control policies and within recognised significant environmental constraints (e.g. the Lincolnshire Woods Area of Outstanding Natural Beauty), it is highly likely that inappropriate and poorly planned development may occur at locations across the district. Impacts may be most noticeable in the smaller attractive villages and more rural locations and may have longer term cumulative impacts associated with important historic landscapes and townscapes (e.g. loss of open space, attractive villages subject to infill development, changes in local character, loss of conservation value, inappropriate use of important historic buildings and loss of their setting etc). There may also be less scope to take account of and improve Green Infrastructure across the district with this option i.e. GI is probably best delivered via careful integration into options that give clearer strategic direction.</p>	<p>2. Protect and enhance the quality and distinctiveness of the area's landscapes, townscapes and historic environment.</p> <p>Comments: Natural resources in this instance are considered to be:</p> <ul style="list-style-type: none"> • Air • Water • Soil and raw minerals • Biological resources addressed under biodiversity) <p>All new developments will have implications for resource use and protection during both the planning stages (i.e. land use - greenfield versus brownfield), construction phases (i.e. waste generation and pollution) and operational phases (i.e. increased demand for potable water supplies, additional discharges to foul sewers and treatment capacity, discharges to water courses, increased light pollution etc).</p> <p>It is difficult to distinguish the effects with any certainty at this stage between development options A1 to A7. For example, the location of development should be closely linked to the availability of water resources (i.e. location of new developments in 'zones' where spare capacity exists may be beneficial). This information is not presently available and therefore, decisions cannot be made based on this aspect (further investigation to identify water resource issues across the district is recommended to ascertain the most appropriate locations for development).</p> <p>This option allows unrestrained dispersal. More widespread development in towns and villages across the district would result in sufficient capacity of brownfield land within towns to negate the need for greenfield development (and loss of high quality agricultural land). However, the (assumed) significant expansion of some smaller market towns and villages may result in the increased use of greenfield sites at these locations (albeit on a smaller scale). Unrestrained dispersal may have other implications. The expansion of smaller market towns and villages may have effects on local water quality (i.e. increased discharges to individual sewage units or to Arnglian Water treatment Works). The availability of water resources across the district is unlikely to be constant and this again may increase pressure in certain locations. Whilst options A2 to A7 may be promoting development in locations where water resources may be a constraint, they do have the distinct advantage that development is constrained within a geographical area and solutions to mitigate impacts can be increasingly focused. This may be more difficult to achieve with option A1.</p> <p>All new development should promote water conservation measures (including through design), and possibly water storage facilities that can be re-used for non-drinking purposes.</p>	<p>3. Protect natural resources from avoidable losses and pollution and minimise the impacts of unavoidable losses and pollution.</p> <p>Comments: This option would promote most development within the seven largest towns across the district – Louth, Skegness, Horncastle, Mablethorpe, Alford, Spilsby and Coningsby/Tattershall. It would include urban extensions onto greenfield sites and whilst this may result in a loss of high quality agricultural land, it may be preferable to option A1 where many other factors such as water quality and water resources may be significantly affected (perhaps cumulatively) across the district.</p> <p>Comments: Very similar to A2 but with increased planned development focused in Louth and Skegness. This again may be preferable to option A1 and A2 (see comments above). However, this is based on the assumption that sustained growth could be achieved within Louth and Skegness that would not compromise or would at least have minimal impact on natural resources. However, any impacts would possibly be offset (and geographically contained) by avoiding more widespread development across the district as proposed in option A1 and to a lesser degree A2.</p>	<p>3. Protect natural resources from avoidable losses and pollution and minimise the impacts of unavoidable losses and pollution.</p> <p>Comments: Very similar to A3 but with increased planned development focused in four towns - Horncastle, Louth, Mablethorpe and Skegness. This again may be preferable to option A1 and A2 (see comments above). However, this is based on the assumption that sustained growth could be achieved within Louth, Skegness, Horncastle and Mablethorpe that would not compromise or would at least have minimal impact on natural resources. However, any impacts would possibly be offset (and geographically contained) by avoiding more widespread development across the district as proposed in option A1 and to a lesser degree A2.</p>
A2	<p>Comments: Whilst development in the more rural locations across the district will be restricted, planned urban extension onto greenfield sites (e.g. around Louth) and increased concentrations of population may have adverse effects without mitigation, albeit limited within constrained geographical areas associated with the seven main towns. The extent of development along the coast at Skegness (associated with national and international sites of importance) and outwards in more rural areas from Louth is a key issue for biodiversity (see A1 for key issues). This option would be favourable compared with option A1. Planned / appropriately designed and managed Green Infrastructure for biodiversity associated with urban extensions may have longer term benefits.</p>	<p>Comments: This option would promote most development within the seven largest towns across the district – Louth, Skegness, Horncastle, Mablethorpe, Alford, Spilsby and Coningsby/Tattershall. It would be preferable to option A1 as strong rural restraint would help to protect the districts distinctive landscapes (e.g. the majority of the Lincolnshire Woods AONB) and rural character. However, the increased focus for development within towns with Conservation Areas (Alford, Horncastle, Louth, Spilsby and Tattershall) needs to ensure that their historic value (including that of individual buildings and their settings) is maintained (both within and adjacent to these areas). In addition, development adjacent to these towns associated with greenfield sites may have implications or edge effects (e.g. between Louth and the Lincolnshire Woods AONB) with resultant local changes in landscape or townscape character. Opportunities to ensure that local distinctiveness and character are maintained and possibly enhanced as a result of new development should be priority. The effects of unknown or buried archaeological value, particularly associated with known areas of archaeological and historic importance should not be overlooked.</p>	<p>Comments: Option A3 would be preferable over A2 with the focus of development directed towards Louth and Skegness (see comments for A2 above). The potential landscape and visual effects associated with large urban extensions adjacent to Louth may offset more sporadic extensions (albeit smaller) across more sites across the district. Land allocation should be avoided to the south-west and west of Louth designated as an Area of Outstanding Natural Beauty. Opportunities for improving and creating new Green Infrastructure assets should be integral to any urban extension.</p>	<p>Comments: Very similar to A3 but with increased planned development focused in four towns - Horncastle, Louth, Mablethorpe and Skegness. The comments noted for option A3 are considered to be applicable here. This option would be less preferable than option A3 as the effects associated with landscapes, townscapes and the historic environment would be more widespread across the district and perhaps cumulatively, more significant? However, a four town led approach may provide significantly more opportunities for improving and creating new Green Infrastructure assets across the district and improving connectivity between such assets.</p>	<p>Comments: Very similar to A3 but with increased planned development focused in the four towns of Horncastle, Louth, Mablethorpe and Skegness. Whilst this may have increased adverse effects for biodiversity (without mitigation) within the immediate geographical locations of these towns, much of the district will remain unaffected, particularly rural areas. The extent of development along the coast at Skegness and Mablethorpe (associated with national and international sites of importance) and outwards in more rural areas such as from Louth is a key issue for biodiversity (see A1 for key issues). This option would be favourable compared with option A1. Planned / appropriately designed and managed Green Infrastructure for biodiversity associated with urban extensions may have longer term benefits.</p>
A3	<p>Comments: Very similar to A2 but with increased planned development focused in Louth and Skegness. Whilst this may have increased adverse effects (without mitigation) for biodiversity within the immediate geographical locations of these towns, much of the district will remain unaffected. The extent of development along the coast at Skegness (associated with national and international sites of importance) and outwards in more rural areas such as from Louth is a key issue for biodiversity (see A1 for key issues). This option would be favourable compared with option A1. Planned / appropriately designed and managed Green Infrastructure for biodiversity associated with urban extensions may have longer term benefits.</p>	<p>Comments: Very similar to A2 but with increased planned development focused in Louth and Skegness. Whilst this may have increased adverse effects (without mitigation) for biodiversity within the immediate geographical locations of these towns, much of the district will remain unaffected, particularly rural areas. The extent of development along the coast at Skegness (associated with national and international sites of importance) and outwards in more rural areas such as from Louth is a key issue for biodiversity (see A1 for key issues). This option would be favourable compared with option A1. Planned / appropriately designed and managed Green Infrastructure for biodiversity associated with urban extensions may have longer term benefits.</p>	<p>Comments: Very similar to A3 but with increased planned development focused in four towns - Horncastle, Louth, Mablethorpe and Skegness. The comments noted for option A3 are considered to be applicable here. This option would be less preferable than option A3 as the effects associated with landscapes, townscapes and the historic environment would be more widespread across the district and perhaps cumulatively, more significant? However, a four town led approach may provide significantly more opportunities for improving and creating new Green Infrastructure assets across the district and improving connectivity between such assets.</p>	<p>Comments: Very similar to A3 but with increased planned development focused in four towns - Horncastle, Louth, Mablethorpe and Skegness. This again may be preferable to option A1 and A2 (see comments above). However, this is based on the assumption that sustained growth could be achieved within Louth, Skegness, Horncastle and Mablethorpe that would not compromise or would at least have minimal impact on natural resources. However, any impacts would possibly be offset (and geographically contained) by avoiding more widespread development across the district as proposed in option A1 and to a lesser degree A2.</p>	<p>Comments: Very similar to A3 but with increased planned development focused in four towns - Horncastle, Louth, Mablethorpe and Skegness. This again may be preferable to option A1 and A2 (see comments above). However, this is based on the assumption that sustained growth could be achieved within Louth, Skegness, Horncastle and Mablethorpe that would not compromise or would at least have minimal impact on natural resources. However, any impacts would possibly be offset (and geographically contained) by avoiding more widespread development across the district as proposed in option A1 and to a lesser degree A2.</p>
A4	<p>Comments: Very similar to A3 but with increased planned development focused in the four towns of Horncastle, Louth, Mablethorpe and Skegness. Whilst this may have increased adverse effects for biodiversity (without mitigation) within the immediate geographical locations of these towns, much of the district will remain unaffected, particularly rural areas. The extent of development along the coast at Skegness and Mablethorpe (associated with national and international sites of importance) and outwards in more rural areas such as from Louth and Horncastle is a key issue for biodiversity (see A1 for key issues). This option would be favourable compared with option A1. Planned / appropriately designed and managed Green Infrastructure for biodiversity associated with urban extensions may have longer term benefits.</p>	<p>Comments: Very similar to A3 but with increased planned development focused in the four towns of Horncastle, Louth, Mablethorpe and Skegness. Whilst this may have increased adverse effects for biodiversity (without mitigation) within the immediate geographical locations of these towns, much of the district will remain unaffected, particularly rural areas. The extent of development along the coast at Skegness and Mablethorpe (associated with national and international sites of importance) and outwards in more rural areas such as from Louth and Horncastle is a key issue for biodiversity (see A1 for key issues). This option would be favourable compared with option A1. Planned / appropriately designed and managed Green Infrastructure for biodiversity associated with urban extensions may have longer term benefits.</p>	<p>Comments: Very similar to A3 but with increased planned development focused in four towns - Horncastle, Louth, Mablethorpe and Skegness. The comments noted for option A3 are considered to be applicable here. This option would be less preferable than option A3 as the effects associated with landscapes, townscapes and the historic environment would be more widespread across the district and perhaps cumulatively, more significant? However, a four town led approach may provide significantly more opportunities for improving and creating new Green Infrastructure assets across the district and improving connectivity between such assets.</p>	<p>Comments: Very similar to A3 but with increased planned development focused in four towns - Horncastle, Louth, Mablethorpe and Skegness. This again may be preferable to option A1 and A2 (see comments above). However, this is based on the assumption that sustained growth could be achieved within Louth, Skegness, Horncastle and Mablethorpe that would not compromise or would at least have minimal impact on natural resources. However, any impacts would possibly be offset (and geographically contained) by avoiding more widespread development across the district as proposed in option A1 and to a lesser degree A2.</p>	<p>Comments: Very similar to A3 but with increased planned development focused in four towns - Horncastle, Louth, Mablethorpe and Skegness. This again may be preferable to option A1 and A2 (see comments above). However, this is based on the assumption that sustained growth could be achieved within Louth, Skegness, Horncastle and Mablethorpe that would not compromise or would at least have minimal impact on natural resources. However, any impacts would possibly be offset (and geographically contained) by avoiding more widespread development across the district as proposed in option A1 and to a lesser degree A2.</p>

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A5	Settlement hierarchy with coastal regeneration	Comments: Very similar to A3 and A4 but with accelerated growth in Mablethorpe and Skegness. Whilst this may have increased adverse effects for biodiversity (without mitigation) within the immediate geographical locations of these towns, much of the district will remain unaffected, particularly rural areas. The extent of development along the coast at Skegness and Mablethorpe (associated with national and international sites of importance) and outwards in more rural areas such as from Louth and Horncastle is a key issue for biodiversity (see A1 for key issues). This option would be favourable compared with option A1. Planned / appropriately designed and managed Green Infrastructure for biodiversity associated with urban extensions may have longer term benefits.	Comments: Very similar to A3 and A4 but with accelerated growth in Mablethorpe and Skegness. The comments noted for option A3 and A4 are considered to be applicable here with the focus of development in Mablethorpe and Skegness potentially reducing the need for development in more landscape / townscape sensitive locations.	Comments: Very similar to A3 and A4 but with accelerated growth in Mablethorpe and Skegness. The comments noted for A3 and A4 are considered applicable here.
A6	New sub-regional growth points	Comments: A different strategy to A2 to A5 but with similar environmental constraints – the effects on biodiversity (see A1 for key issues) and sites of nature conservation value associated with the selected catchment settlements. Effects most likely to be focused within the immediate geographical locations of the selected towns with much of the district remaining unaffected. Planned / appropriately designed and managed Green Infrastructure for biodiversity associated with urban extensions may have longer term benefits.	Comments: A different strategy to A2 to A5 with accelerated growth of three of the larger villages (not named). Significant landscape and historic environmental issues may be associated with this option (potentially very similar to those outlined for Option A1). This will largely be dependent upon the existing landscape character and historic sensitivities. However, it is recognised that the pressure upon smaller market towns may be reduced, thus helping to protect local character and distinctiveness across many other parts of the district. At this stage, the effects of such expansion are considered to be significant (including cumulatively) and compared to options A2 to A5, this option would be less favourable. The option may provide significant opportunities for improving and creating new Green Infrastructure across the district and improving connectivity between such assets.	Comments: A different strategy to A2 to A5 with accelerated growth of three of the larger villages (not named). Development should be focused on areas where natural resources are least likely to be impacted or degraded. Likely impacts are as noted for A1. There is a high degree of uncertainty of potential effects with this option at present due to the lack of detail available.
A7	New Town	Comments: Whilst the focus of the development would be in one specific area with much of the rest of the district subject to limited development, the effects could be significant and are wholly dependent on the biodiversity and nature conservation value associated with the area of the proposed location of the new town.	Comments: Whilst the focus of the development would be in one specific area with much of the rest of the district subject to limited development, the effects could be significant and are wholly dependent on the landscape character and historic sensitivities associated with the area of the proposed location of the new town. This option would perhaps be preferable to all others as a stand alone option if it was to avoid the need for significant development elsewhere in the district.	Comments: This option could be developed to ensure that a new town is located (or and existing village expanded) where there is either (a) adequate resource capacity for sustained growth or (b) least impact across the spectrum of natural resources. Issues to consider are as noted for A1. It is recommended that further detailed studies are undertaken to aid future decision making once potential locations have been identified. There is a high degree of uncertainty of potential effects with this option at present due to the lack of detail available.
B1	Urban extensions	Comments: This option may have significant adverse cumulative effects in the longer term with regard to the districts biodiversity (already with a low baseline) through habitat loss caused by land take, habitat isolation and fragmentation, increased disturbance, alteration of hydrology, pollution, introduction of non-native species; edge effects etc. Climate change may exacerbate any effects. However, it is assumed that urban extensions would be limited to the seven main towns which would avoid unnecessary rural development. Opportunities to provide a network of Green Infrastructure assets to maintain and enhance biodiversity should be appropriately planned for and implemented.	Comments: This option reflects details already outlined in most A1 list options. The effects of urban extensions and new growth areas documented previously are considered relevant here. For any urban extension, the sensitivity of the immediate landscape and townscape needs to be properly considered. Features of historic interest including historic landscapes and areas considered to be "high risk" for buried archaeology should also be taken into account.	Comments: The allocation of greenfield sites for development needs to be balanced against the opportunity to protect existing green spaces within towns and villages. The total area of proposed greenfield sites is not available at present but would be expected to be relatively low compared to the total area for the district. The comments as noted in A1 apply here. In addition, the location of urban extensions within a particular town or village may be further prescribed by local resource issues e.g. differing qualities of land available, accessibility to link with existing infrastructure, the need for new resource related infrastructure etc.
B2	Dispersed sites within a settlement boundary	Comments: This option would be preferable to B1 with development constrained to brownfield sites. Whilst it is recognised that these can be ecologically valuable, it would negate the need for significant urban extensions and associated impacts on biodiversity and sites of nature conservation value.	Comments: This option is possibly preferable to urban extensions (option B1) and the use of greenfield sites (which would be limited). Townscapes, conservation areas, and local character and distinctiveness would play an important part in successfully integrating growth sites within existing towns and villages. Opportunities to restore and re-use buildings of historic importance may have significant benefits through careful planning. A Supplementary Planning Document to aid appropriate design would be a useful tool to provide direction for developers.	Comments: This option may be constrained by brownfield sites that are contaminated and the associated costs of remediation (including treatment and/or disposal of materials). However, the opportunity to improve ground conditions, enhance environmental quality, and avoid the use of higher quality greenfield sites is recognised.
B3	Criteria-led development	Comments: The effects of this option require further investigation.	Comments: The effects of this policy require further investigation.	Comments: The effects of this policy require further investigation.
C1	By allocating land specifically for affordable housing	Comments: Scale and location of allocation unknown but generic effects may be considered similar to B1.	Comments: There may be a conflict with this option between the costs of providing affordable housing and the costs of designing appropriate housing to suite local character that reflects the distinctiveness of an area. This issue is likely to be of greater importance within the more attractive historic market towns and villages but may also apply to specific locations within larger towns e.g. within or adjacent to Conservation Areas). A Supplementary Planning Document to aid appropriate design would be a useful tool to provide direction for developers.	Comments: Option is not likely to have an effect.
C2	By requiring a percentage of general housing developments to be for affordable housing	Comments: Scale and location of allocation unknown but generic effects may be considered similar to B1.	Comments: Very similar to Option C1. The key difference is that affordable housing would be allocated as a percentage of housing developments.	Comments: Option is not likely to have an effect.
C3	By allowing "exceptions" sites to be developed for affordable housing where general market housing would not normally be permitted	Comments: Scale and location of allocation unknown but generic effects may be considered similar to B1.	Comments: Very similar to Option C1. The key difference is that affordable housing would be allocated as a percentage of housing developments.	Comments: Option is not likely to have an effect.

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C4	By direct provision by a Housing Association (or Registered Social Landlord)	Comments: Option is not likely to have an effect.	Comments: Very similar to Option C1. The key difference is that affordable housing would be allocated as a percentage of housing developments.	Comments: Option is not likely to have an effect.
C5	By the re-use of vacant properties	Comments: Option is not likely to have an effect unless implemented as a stand alone option negating the need for development for affordable housing elsewhere.	Comments: This option is possibly preferable to C1 to C4. This would negate the need to increase development costs to ensure affordable housing reflected local characteristics utilising existing buildings and also avoid land being allocated where visual connectivity to existing townscapes may prove difficult. This is based on the assumption that such buildings could be updated and improved more economically in line with local character to reflect an areas distinctiveness. The opportunity to enhance the townscapes by re-using un-used buildings could be a major benefit in itself.	Comments: Option is not likely to have an effect.
D1	Define town centre roles	Comments: Option is not likely to have an effect.	Comments: This option would create a clear direction for the role of town centres and would thus help to ensure that those of conservation or historic value were appropriately protected and enhanced. The development of inappropriate facilities and services in some of the smaller and perhaps more visually attractive town centres could be avoided with such facilities being appropriately directed toward the larger and possibly less sensitive urban centres.	Comments: Option is not likely to have an effect.
D2	Free-market town centres	Comments: Those town centres with more immediate demarcation between urban and more sub-urban or rural settings may be subject to 'edge effects' i.e. loss of biodiversity resources at a very local scale as a result of town centre growth not being constrained by physical boundaries.	Comments: This option has the distinct disadvantage that town centres would develop in accordance with market-led opportunities. This may be detrimental for many of the smaller market towns (and parts of larger urban areas) and particularly those with historic value (e.g. listed Buildings, conservation Areas, visually appealing townscapes etc). Option D1 is preferable to option D2.	Comments: Option is not likely to have an effect.
E1	Protecting town centre vitality and viability by restricting out of town centre retail development	Comments: Option is likely to have a neutral effect and may avoid the loss of greenfield land being subject to development.	Comments: This option would have a neutral effect on local landscapes and possibly historically sensitive environments assuming that it results in the avoidance of new out of town retail developments that may be considered visually intrusive (dependant on location).	Comments: This option would have a neutral effect on natural resources assuming that it results in the avoidance of new out of town retail developments that may result in a loss of high quality agricultural land (dependant on location, size, scale etc).
E2	Permitting out of town centre retail development in a strategic location	Comments: Whilst the focus of the development would be in one specific area the effects could be significant at a local level and are wholly dependent on the biodiversity and nature conservation value associated with the area of the proposed out of town retail development. New infrastructure associated with a retail park may also contribute to adverse effects.	Comments: Whilst the focus of the development would be in one specific area the effects could be significant at a local level and will be dependent on the existing landscape characteristics and visual amenity of a given location. The location of the development should be given priority over its design i.e. it is more effective to avoid or minimise adverse effects by selecting the least sensitive location rather than trying to 'design-out' adverse effects in an area of high landscape quality. This principle should also be applied to the historic environment. Opportunities to explore the connectivity of out of town centre retail developments and adjacent towns and villages should be explored as part of any Green Infrastructure strategy.	Comments: This option may result in a loss of high quality agricultural land and therefore resource. However, the scale of development (assumed to be limited in its size / geographical extent) would most likely result in a no impact scenario.
F1	Giving community safety the highest priority	Comments: Option is not likely to have an effect.	Comments: Urban design principles should be followed for all new developments where practicable to ensure community safety (including safe and welcoming places, character, continuity, ease of movement, diversity etc). Within this context, effects on urban townscapes are likely to be significantly enhanced. Such principles may be more difficult to adhere to where development is being incorporated into an existing historic setting that may include features such as alleyways.	Comments: Option is not likely to have an effect.
F2	Designing out crime	Comments: Option is not likely to have an effect.	Comments: Comments for F1 apply here.	Comments: Option is not likely to have an effect.
G1	Reinforcement of land allocated for employment	Comments: Land allocated for employment purposes is considered to be integral to options A2 to A6 and therefore effects on biodiversity are as documented above.	Comments: Land already allocated for employment purposes is considered to be integral to options A2 to A6 and therefore effects on landscape and the historic environment are as documented above.	Comments: Land already allocated for employment purposes is considered to be integral to options A2 to A6 and therefore effects on natural resources are as documented above.
G2	Coastal Regeneration	Comments: Land allocated for employment purposes concentrated within Skegness and Mablethorpe and is considered to be integral to options A3 to A5 and therefore effects on biodiversity are as documented above.	Comments: Land already allocated for employment purposes concentrated within Skegness and Mablethorpe and is considered to be integral to options A3 to A5 and therefore landscape and the historic environment are as documented above.	Comments: Land already allocated for employment purposes is considered to be integral to options A3 to A5 and therefore effects on natural resources are as documented above.
G3	Prestige Employment Locations	Comments: Whilst the focus of the development would be in one specific area e.g. a science park on the western edge of the district linked to Lincoln University, the effects could be significant at a local level and are wholly dependent on the biodiversity and nature conservation value associated with the area.	Comments: Whilst the focus of the development would be in one specific area e.g. a science park on the western edge of the district linked to Lincoln University, the effects could be significant bearing in mind that the proposed development site would be in a greenfield location. Considerable weight should be given to the most appropriate location that is of the least sensitive to landscape change and where historic assets are least likely to be adversely impacted. This option is the least preferable of G1 to G3 e.g. G1 and G2 are already making efficient use of land already allocated for employment purposes.	Comments: This option may result in a loss of high quality agricultural land and therefore resource. However, the scale of development (assumed to be limited in its size / geographical extent) would most likely result in a no impact scenario.

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G4	Diversification	<p>Comments: The promotion of farm diversification may have cumulative adverse effects in the longer term as a result of barn conversions for business use (e.g. important roosting habitat for bat and barn owl), loss of habitat for recreation type initiatives etc.</p>	<p>Comments: Rural diversification needs to be supported with an emphasis on high quality and appropriate renovations of redundant buildings for business use to avoid inappropriate development that may have adverse effects on rural character. Otherwise, cumulative impacts may occur in the longer term including impacts associated with landscape descriptions (particularly at a local level). Diversification should not be at the expense of farming practices continuing. The rural district has been largely shaped by the needs of farming and forestry. Even the most traditional features such as hedgerows and pastures have been created and maintained by farmers and their continuing survival still depends on those farmers being able to work the land. Agricultural systems have previously also caused a loss in some of these features. Diversification should be complimentary to farming, not a replacement.</p>	<p>Comments: Rural diversification needs to take account at a local level, the impacts upon natural resources. They are most likely to be associated with land use change and a loss of land available for arable production or livestock farming e.g. the creation of outdoor sports facilities. Whilst these impacts may be insignificant individually, the promotion of this option may result in cumulative impacts in the longer term.</p>
G5	Working from home	<p>Comments: The implementation of this option is unlikely to negate the need for the allocation of employment land elsewhere. Option is likely to have no effect on biodiversity as stand alone option.</p>	<p>Comments: The comments above may apply, but in most cases, it is considered that this option will have a neutral effect.</p>	<p>Comments: Working from home may reduce the need to travel by car. However, this needs to be balanced against the very rural nature of the district and the high dependency on private modes of transport. Air quality across the district is generally good and most quality thresholds are not exceeded. This option alone is unlikely to contribute further to improving local air quality, but may have a limited effect on reducing CO2 emissions (see option P1 for further detail). Option is not likely to have an effect.</p>
H1	Develop a spatial tourism theme strategy	<p>Comments: A carefully designed and implemented tourism strategy may have both adverse and beneficial effects. The redevelopment of the more traditional 'coastal holiday areas' in itself may have adverse effects as a result of growth and increased numbers of visitors (e.g. pressures on important habitats of national and international importance). However, investment and growth may create opportunities in the longer term for the (re)creation of important and historically declining habitats (e.g. wet fens) and also play an important part in delivering / enhancing existing Green Infrastructure and green tourism initiatives. Any strategy that promotes tourism away from the coast (e.g. in the Wolds and fens) should focus on areas where increased disturbance will have least impact. Green tourism principles should be followed / developed.</p>	<p>Comments: This option is promoting a spatial tourism 'theme' which in itself would not have an adverse effect on landscape, townscape or historic assets. In fact, the strategy would be underpinned by promoting the distinctive character of specific areas e.g. the wild coast, the Wolds and fens and therefore measures to ensure that such distinctive character is protected and enhanced should be of high priority. Green tourism principles should be followed / developed.</p>	<p>Comments: Tourism is important in East Lindsey. Account needs to be taken within any strategy of seasonal changes in demand for water resources associated with possibly higher influxes of visitors in the longer term.</p>
H2	Develop a tourism activity strategy	<p>Comments: See comments for H1. This option proposes an array of tourism activities. The effect of such activities on biodiversity and sites of nature conservation value will be largely dependent on the proposed location and the predicted numbers of visitors likely to be attracted. More sensitive locations should be designed for low numbers of visitors (e.g. binding along the coastline) vs. higher numbers of visitors in less sensitive 'honey pot' locations (e.g. attractive market towns such as Horncastle). The environment and distinctiveness of East Lindsey is one of its major assets and whilst this should be effectively utilised by residents and visitors alike. Any strategy does need to ensure that carefully designed management principles are applied that are adaptable to differing tourism scenarios e.g. the siting of caravan parks.</p>	<p>Comments: See comments for H1. This option proposes an array of tourism activities. Their effects on landscape and townscape character, visual amenity and historic landscapes and assets will be largely dependent on the proposed location and the predicted numbers of visitors likely to be attracted. More sensitive locations should be designed for low numbers of visitors (e.g. binding along the coastline) vs. higher numbers of visitors in less sensitive 'honey pot' locations (e.g. attractive market towns such as Horncastle). The environment and distinctiveness of East Lindsey is one of its major assets and whilst this should be effectively utilised by residents and visitors alike. Any strategy does need to ensure that carefully designed management principles are applied that are adaptable to differing tourism scenarios e.g. the siting of caravan parks.</p>	<p>Comments: See comments for H1 and G4.</p>
J1	Reducing the need to travel to access services	<p>Comments: The locations of major new development would be primarily driven by accessibility of sustainable modes of transport and this may result in development within areas of, or near to, high ecological value. Whilst the links associated with promoting travel by public transport, cycling and walking and reductions in carbon emissions are clear (assuming such an option would reduce transport by private car), the benefits to the districts biodiversity re mitigating predicted climate change effects would not be addressed by this option alone. The very rural nature of the district is unlikely to see significant numbers of its residents avoiding car use. At this stage, given that such locations are not known, there is considered to be a high degree of uncertainty in predicting any impacts.</p>	<p>Comments: The locations of major new development would be primarily driven by accessibility of sustainable modes of transport and this may result in development in areas of high landscape value and / or historic significance. At this stage, given that such locations are not known, there is considered to be a high degree of uncertainty in predicting any impacts.</p>	<p>Comments: Reducing the need to travel may contribute in the longer term to reducing carbon emissions within the district. However, this needs to be balanced against the very rural nature of the district and the high dependency on private modes of transport. Air quality across the district is generally good and most quality thresholds are not exceeded. This option alone is unlikely to contribute further to improving local air quality, but may have a limited effect on reducing carbon emissions (see option P1 for further detail). Option is not likely to have an effect.</p>
J2	Catering for the essential use of the car	<p>Comments: See comments for J1.</p>	<p>Comments: See comments for J1.</p>	<p>Comments: See comments for G5 and J1. Option is not likely to have an effect.</p>
J3	Developing cluster services	<p>Comments: Option is not likely to have an effect.</p>	<p>Comments: The development of local neighbourhood centres associated with larger urban centres and the concentration of key community facilities and services within larger villages has the potential to have adverse impacts (possibly cumulative) on the existing character and settings of existing historic market towns and villages. Design will be important and the urban design principles as noted in F1 should be applied which may help to minimise visual impacts. In addition, the options to define town centre roles may also compliment J3 and help to protect an areas distinctive character.</p>	<p>Comments: See comments for G5 and J1. Option is not likely to have an effect.</p>
K1	Identifying a specific site or sites for Traveller and Gypsy accommodation	<p>Comments: It is assumed that such sites would most likely be associated with urban centres or market towns to ensure adequate provision to essential services. The assumption has also been made that sites would be allocated on brownfield sites rather than greenfield locations and that any site would be relatively restricted in its size.</p>	<p>Comments: It is assumed that such sites would most likely be associated with urban centres or market towns to ensure adequate provision to essential services. The assumption has also been made that sites would be allocated on brownfield sites rather than greenfield locations and that any site would be relatively restricted in its size. Location will be key and should take full account of how such sites can be integrated within an existing townscape to avoid or minimise adverse impacts on visual amenity. Impacts at the landscape scale or on historic assets are unlikely.</p>	<p>Comments: Option is not likely to have an effect.</p>
K2	Identifying an area of search for Traveller and Gypsy accommodation	<p>Comments: See comments for K1.</p>	<p>Comments: See comments for K1.</p>	<p>Comments: Option is not likely to have an effect.</p>
K3	Applying a criteria-based	<p>Comments: See comments for K1.</p>	<p>Comments: See comments for K1.</p>	<p>Comments: Option is not likely to have an effect.</p>

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Option	Title	1. Protect and enhance the quality and distinctiveness of the areas' biodiversity (native plants and animals) and geodiversity.	2. Protect and enhance the quality and distinctiveness of the area's landscapes, townscapes and historic environment.	3. Protect natural resources from avoidable losses and pollution and minimise the impacts of unavoidable losses and pollution.
L1	policy District-wide Landscape Strategy	Comments: The habitats that form the distinctive landscapes across the district may benefit from the implementation of a landscape strategy where this involves the recreation of 'historic' landscape elements such as wet tens (many of which have been drained for agriculture) and woodland, much of which has been historically cleared. It is recognised that such a strategy would be designed to aid development in appropriate locations. Consideration should be given to identifying areas that may be considered to have a low landscape sensitivity (i.e. suitable for development), but which may have a high biodiversity value.	Comments: The proposed landscape strategy that would aim to respect, protect and enhance the distinctiveness of the districts urban townscapes and landscapes through a better understanding of sensitivity to change and development would help to ensure that growth can be achieved across the district in the most sustainable way possible. A strategy of this nature would protect the key features of the district including opportunity to identify scope AONB, Conservation Areas, and visual amenity whilst providing opportunity to identify scope for the creation of new Green Infrastructure assets such as woodlands, rights of way, and habitats of ecological value such as wetfens. The importance of historic landscapes across the district should be fully considered as part of this strategy.	Comments: Option is not likely to have an effect.
L2	Promoting market town themes	Comments: Option is not likely to have an effect.	Comments: This option would have a positive influence on protecting the distinctive character of the districts historic towns and villages based on their cultural and historical roots.	Comments: Option is not likely to have an effect.
L3	Balancing Landscape Promotion and Protection	Comments: See comments for L1.	Comments: See comments for L1. The distinctive landscapes should be promoted in such a way to ensure that the very reasons why they are attractive are not spoilt by increased disturbance and pressure from visitors.	Comments: Option is not likely to have an effect.
M1	Protect and conserve the District's existing biodiversity	Comments: Sites of national and international value are already protecting via other legislative mechanisms as are protected species. The formulation of future policies should reflect this. The district has a 'low base' re biodiversity and it is the locally designated sites and non-designated sites already recognised for their nature conservation value that require increased focus. BAP habitats and species should be targeted as priority across the district and the weight of policies should reflect the recently published BAP list (2007) which has expanded considerably over the past ten years.	Comments: This option is designed to ensure that new development does not harm or deplete existing biodiversity. Biodiversity is inextricably linked to the habitats / distinctive landscapes across the district. The promotion of policies to protect and conserve biodiversity should therefore help to protect the landscapes for wildlife to thrive.	Comments: Biodiversity and natural resources are inextricably linked. This option clearly promotes the protection and conservation of the district existing biodiversity and therefore, would be considered to have a positive effect on natural resources (e.g. water resource) as abstractions will be constrained through abstraction licences and through the recently published Catchment Abstraction Management Plans, these licence thresholds will be set to ensure 'good ecological status' can be achieved (Water Framework Directive objective).
M2	Protect, enhance, expand and promote the District's biodiversity	Comments: M1 and M2 are inextricably linked and both options should form the basis for future policies. A key component of any new development if it is to be truly sustainable will be to enhance existing / create new important Green Infrastructure for biodiversity (type will be dependent on locally important habitats and species) and to ensure connectivity between sites of nature conservation value. Principles such as those published in 'Biodiversity by Design' should be taken into account. The need for a Green Infrastructure strategy for the district should be reviewed that will provide robust direction for growth with GI across the district.	Comments: See comments for M1 and L3 above.	Comments: See comments for M1 above.
N1	Phased re-location of communities from areas of greatest flood risk	Comments: The shift inland of Mablethorpe, Trusthorpe and Sutton on Sea to avoid future flood risk may have significant implications for biodiversity, very similar to those identified for option A7 (new town), but possibly on a larger scale. However, such a shift would have to be phased over a very long period of time and therefore biodiversity protection and enhancement measures could be appropriately designed and implemented. There may be significant habitat creation opportunities along the coast associated with any redevelopment e.g. saltmarsh, coastal lagoons etc.	Comments: The shift inland of Mablethorpe, Trusthorpe and Sutton on Sea to avoid future flood risk may have significant implications very similar to those identified for option A7 (new town), but possibly on a larger scale. At this early stage, the implications for natural resources would depend on how this option is implemented and are considered to be similar to those issues noted in A1.	Comments: The shift inland of Mablethorpe, Trusthorpe and Sutton on Sea to avoid future flood risk may have significant implications very similar to those identified for option A7 (new town), but possibly on a larger scale. At this early stage, the implications for natural resources would depend on how this option is implemented and are considered to be similar to those issues noted in A1.
N2	Improved sea defences to permit coastal regeneration	Comments: The importance of much of East Lindsey's coastline through national and international conservation designations has been documented in A3. The continuation of providing sea defences will be ineffective in allowing the natural coastline to evolve and natural coastal geomorphological processes to occur. However, there may be opportunities for biodiversity gain (including contributing towards BAP targets) via inward migration of defences in some locations e.g. managed realignment schemes incorporating recreation of coastal habitats such as saltmarsh and coastal lagoons. In the longer term, option N1 is considered to be more sustainable than option N2 if appropriately implemented with regard to biodiversity.	Comments: Continued maintenance and improvement of coastal sea defences is most likely to have a neutral effect assuming a continuation of existing management options. There is a high degree of uncertainty at this strategic level of assessment with regard to the impacts associated with the historic environment and further investigation needs to be undertaken. Opportunities to move sea defences inland via managed realignment initiatives may allow for the creation of historic coastal landscapes such as extensive areas of saltmarsh and coastal lagoons. At this stage, this option is possibly preferred to option N1 from a landscape and historic environment perspective.	Comments: The effects of this option are largely reliant on those organisations that lead and implement major flood risk capital projects. Whilst this is outside the remit of the LDF process, consideration should be given to existing options that can include, beach recharge (i.e. excavating large quantities of sand out at sea and depositing on beaches) and the use of frost resistant limestone to provide shoreline protection (only two sources – Derbyshire and Norway), both of which have implications with regard to the use of natural / limited resources. Any effects will be largely dependent on scheme option and design should this option be preferred.
N3	Restrict development in areas at risk from fluvial or flash flooding	Comments: Measures to avoid or reduce further development within floodplains may contribute in the longer term towards more naturally functioning river systems that should benefit biodiversity. Such policies may also lend themselves to reducing the need for unsustainable investment in existing defences allowing in the longer term, more diverse habitats to evolve within river corridors.	Comments: Restricting development from areas considered to be at risk from fluvial or flash flooding will avoid the need for potentially unsightly flood risk management measures to be incorporated as part of new developments. However, measures to alleviate existing areas at risk may have adverse effects on local townscapes and character unless appropriately implemented.	Comments: Restricting development in floodplains may also have the positive effect of reducing the risk of pollution events (particularly during the construction phase) by separating the geographical location of rivers and developments. However, there is a high degree of uncertainty with this prediction.

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Option	Title	1. Protect and enhance the quality and distinctiveness of the areas' biodiversity (native plants and animals) and geodiversity.	2. Protect and enhance the quality and distinctiveness of the area's landscapes, townscapes and historic environment.	3. Protect natural resources from avoidable losses and pollution and minimise the impacts of unavoidable losses and pollution.
P1	Reducing carbon energy use	<p>Comments: This option for mitigating the impacts of climate change may well have a positive impact on biodiversity in the very long term (high degree of uncertainty here). However, in the short and medium term, beneficial effects are most likely to be negligible. Wildlife has three ways of responding to climate change: by moving, by adapting, or by going extinct'. The degree and success of adjustment is a fundamental factor in the maintenance (and enhancement) of biodiversity (habitats and species). The current risk is that as a result of the rate of climate change, species will not have time to adapt. The speed, scale and scope of adaptation to the impacts of climate change will reflect the existing links at the landscape scale between habitats. For example, species need to be able to migrate between habitats and avoid being confined to areas of suitable habitat immediately adjacent to areas of unsuitable habitat. This option should be underpinned by policies to ensure that landscape scale links between habitats can be created / implemented as part of new developments (these may be geographically distinct) i.e. Green Infrastructure to aid species to successfully move and adapt.</p>	<p>Comments: There may be minor effects of this option upon historic buildings (e.g. increasing energy efficiency) and local visual effects of facilities across the district to promote recycling (e.g. wheeltie bins etc. However, in most cases, it is considered that this option will have a neutral effect.</p>	<p>Comments: This option may have important positive benefits with regard to the level of carbon emissions across the district in the longer term and therefore air quality.</p>
P2	Promoting and developing sustainable renewable energy sources	<p>Comments: See comments for P1. The type of renewable energy source and its location will largely reflect the effects on biodiversity. For example, a proposed inland wind farm may be found to have adverse effects on local bird or bat populations and be considered likely to have a more significant impact on biodiversity than a biofuel plant. However, impacts associated with bio-fuel plants may include increased energy to produce, process and transport the crops and loss or degradation of important habitats within the agricultural landscape which are important for wildlife. It is recommended that specific options for consideration should be subject to Life-Cycle Analysis (or similar) to ensure that the overall impacts specific to option types is taken into consideration during policy formulation.</p>	<p>Comments: The options to produce renewable energy will have different effects on landscapes and visual amenity depending on the location. For example, wind is not constant and many wind farms are located on higher ground (often >100m AOD) or along the coast to ensure increased efficiency (these locations are usually more exposed). Effects may include increased visibility and their intrusiveness. Such areas may also be of high landscape value (e.g. the Lincolnshire Wolds). The very open nature of the fens, a distinctive landscape within East Lindsey, may also be unsuitable for such development from a landscape perspective (e.g. there are examples of wind farms in the south Lincolnshire fens that are visible up to 30km away). Effects are in many ways subjective and the assumption that they spoil beautiful landscapes may not be universally held and perhaps needs to be evaluated.</p> <p>The conversion of biomass into energy is usually undertaken in purpose-built power plants. There may be effects of such plants being located in a very rural district (i.e. they may be perceived as industrial development). However, as farming continues to decline, growing crops for energy and fuel may ensure a continuation of landscape management which will have beneficial effects in helping to protect the distinctive nature of the countryside.</p>	<p>Comments: Natural resources can also include 'low resources' i.e. wind, geothermal, tidal and solar energy. However, these resources cannot be depleted but do require other resources to exploit them e.g. energy, materials and space are needed to build wind turbines. This option may reduce the reliance on fossil fuels (assuming it is adopted in other districts across the UK) and may therefore have positive impacts on reducing the exploitation of some natural resources in the longer term assuming appropriate implementation of renewable energy projects.</p>
P3	Restricting sustainable renewable energy development	<p>Comments: See comments for P1 and P2. Whilst this option in principle may appear to have a lower risk of impacting upon the districts biodiversity, this has to be balanced with the need to find and develop new energy sources that in the very long term, may actually provide significant sustainable benefits for the districts wildlife.</p>	<p>Comments: Taking the comments for option P3 into account, this option would help to protect the distinctive nature of the countryside in some instances. However, it may inadvertently promote an unnecessary degree of protection (the British countryside is largely man made) instead of promoting initiatives that give a sufficient degree of flexibility to land managers allowing options that will ensure the continued management of the countryside.</p>	<p>Comments: This option may result in a continued reliance on fossil fuels and exploitation of a finite resource. This is not a sustainable approach to meeting energy requirements in the longer term.</p>
P4	Promoting the development of a nuclear power station	<p>Comments: Effects may be best categorised into construction, operation and decommissioning. Impacts during construction would be typical of any large scale development and might include habitat loss or degradation and habitat fragmentation. The site location would be important here. Operational impacts on an effectively run and maintained nuclear power station may include over exploitation of local resources (e.g. nuclear plants that rely upon freshwater for once-through cooling systems require 2.5 times as much water as fossil fuel plants with potentially significant impacts on water resources and aquatic habitats and species), changes in local environmental conditions (e.g. water temperature, air temperature etc). A major incident however, would be catastrophic on many levels including for biodiversity. Further investigation into the effects of existing nuclear power stations on biodiversity should be undertaken if this option is to be seriously considered for inclusion in the Core Strategy.</p>	<p>Comments: The effects of a nuclear power plant within the district (possibly at a coastal location) would potentially have significant adverse impacts upon landscape, visual amenity and possibly, historic assets. The effects of development of this nature and scale would be very difficult to avoid, minimise or mitigate and therefore, even at this early stage, such an option would be considered to have significant adverse impacts in relation to the defined objective. Other renewable energy options would be considered preferable in this instance.</p>	<p>Comments: This option has both constraints and opportunities – the construction of a nuclear power station would involve considerable exploitation of natural resources and possibly high energy demands. Its operation may require up to 2.5 times more water than a fossil fuel plant if designed with a once through cooling system. This has to be balanced against future energy requirements and the need to reduce reliance upon fossil fuels. The effects at this stage are uncertain.</p>
Q1	Planning Obligations applied consistently across the county	<p>Comments: Option is not likely to have an effect.</p>	<p>Comments: Option is not likely to have an effect.</p>	<p>Comments: Option is not likely to have an effect.</p>
Q2	Planning Obligations to meet the needs of East Lindsey	<p>Comments: Option is not likely to have an effect.</p>	<p>Comments: Option is not likely to have an effect.</p>	<p>Comments: Option is not likely to have an effect.</p>

¹ EMFA (2006): A Biodiversity Strategy for the East Midlands