

**From:** Janice Bradley [REDACTED]  
**Sent:** 12 January 2018 15:09  
**To:** Planning Policy; Steven Osborne-James  
**Subject:** MLP Issues and Options Response from the Nottinghamshire Wildlife Trust  
**Attachments:** Nottinghamshire Minerals Plan Issues and Options Nottinghamshire Wildlife Trust Response January 2018.pdf; Nottinghamshire Living Landscapes Map July 2016 V8 (2).pdf

Dear Steve and Colleagues,

Please find attached NWT's response to the Issue and Options consultation. Please do not hesitate to contact me if you have any queries.

Many thanks

Best regards

Janice

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Please note that I work all day on Mondays, Tuesdays and Thursdays and from 9.30-1.30 on Wednesdays and Fridays.



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**Nottinghamshire**  
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**FAO: Steven Osborne-James, Planning Policy Team**

12<sup>th</sup> January 2018

Our ref: JMB/Minerals/MLP

Dear Steve,

**Re: Minerals Local Plan Consultation – Issues and Options**

Thank you for consulting NWT on the above. NWT strongly welcome the MPA's continued approach in seeking to embed the large scale restoration and re-creation of biodiversity into the MLP. NWT supports the MLP's aim to create more habitat, larger areas of habitat, enhanced habitat and habitats that are linked, as this is in accordance with the aims of the Lawton Review and the Natural Environment White Paper. We have welcomed the opportunity to work with the MPA for several years on discussing the concepts behind this approach and also recognise that a great deal of good biodiversity restoration has been both approved and undertaken under the period of the current MLP. We look forward to working in a similar manner with the MPA in the future, underpinned by a shared vision for the substantive conservation and enhancement of biodiversity in the County.

In this response, I have followed the normal convention of showing the existing text from the consultation document in *italics* and recommended changes in ***bold italics***.

**Q1 Do you think any further information should be included in the overview of the area?**

NWT support the overview in general, but would like to see more explicit recognition given to the value of the range of ecologically designated sites in the County, we would suggest:

*” Nottinghamshire also supports a wide network of important sites for nature conservation, the most important focused within Sherwood Forest, near Edwinstowe. This includes a Special Area of Conservation and possible future Special Protection Area, both of which hold international status. **There is however a significant network of SSSIs and LWS across the County, representing the wide range of habitat types found on the diverse geology of the County and hosting diverse, and often scarce, species of flora and fauna. Some of these habitats have been created as a result of well-planned, biodiversity-led restoration of former mineral sites.***

## **Q2 Do you agree with the draft vision? Are there other things we should include?**

NWT agree strongly with the draft Vision in general, but would hope to see the addition of a specific reference to priority habitats, not least as this recognises the potential for mineral restoration to meet national and local targets for BAP/Sn41 Habitats of Principal Importance.

*“All mineral workings will contribute towards a greener Nottinghamshire by ensuring that the County’s diverse environmental and historic assets are protected, maintained and enhanced through appropriate working, restoration and after-use. This will result in improvements to the built and natural environment, and contribute to landscape-scale biodiversity delivery **of priority habitats**; and the re-connection of ecological networks. “*

NWT would also like to see a reference to the need for mineral working to both reduce and mitigate for the effects of climate change.

## **Q3 Are the above strategic issues appropriate? Are there others we should consider?**

NWT support the issues as stated, but would expect to see a stronger emphasis on environmental protection. This could fit into Issue 1 as follows:

*“1. Improving the sustainability of minerals development*

*Ensuring that primary minerals are worked in the most sustainable manner, **with strict safeguards to ensure the protection of the County’s natural and historic heritage**, and **that the use of secondary and recycled aggregates is encouraged**. Securing a spatial pattern of mineral development that efficiently delivers resources to markets within and outside Nottinghamshire.”*

NWT strongly welcome the MPA’s approach in seeking to embed the large scale restoration and re-creation of biodiversity into the MLP. NWT supports the MLP’s intention to follow the aims of the Lawton Review and the Natural Environment White Paper. It is particularly important, however, that adequate and long term financial provision is made for the future management of the restored habitats, and also that both existing and restored habitats are protected. The biodiversity gains of a mineral scheme cannot be claimed if the habitats become lost or degraded once the statutory 5 year aftercare period has ended. Sadly, this has happened on occasions in Notts in the past. NWT would therefore suggest the following addition to the text:

*“4. Biodiversity led restoration of worked out quarries*

***Ensuring that areas of existing high biodiversity value within proposed quarries are protected and enhanced through the scheme, and that all worked out quarries are restored to the highest standard and at the earliest opportunity through a biodiversity led approach and that the restoration proposals are addressed at an early stage of the application process. It is essential that adequate and long term provision is made for the protection and management of the restored habitats and that this is secured by legal obligations.”***

**Q6 Do you think extensions to existing permitted quarries should be prioritised over new greenfield quarries?**

NWT consider that extensions are generally more sustainable from an ecological perspective than new greenfield quarries, but there may be areas of high ecological value in proximity to existing sites which should be a limiting factor as such areas of natural capital may not be replaceable. Where (chronological or spatial) extensions are proposed, they should also enable a review of the existing restoration scheme to ensure that it meets the current biodiversity-led approach and is making the best possible contribution to meeting targets for the re-creation of priority habitats. New greenfield quarries may provide opportunities for better designed, landscape-scale restoration schemes, but may also have higher impacts on existing habitat and species of value. Therefore NWT consider that each proposal must be considered on a site by site basis.

**Q7 Should different approaches (new sites/extensions to existing permitted quarries) be adopted for individual mineral types?**

NWT consider that the issues described in the answer to Q6 can apply to all mineral types, particularly the presence of existing habitats and species of high ecological value and the potential for the restoration of priority habitats. Therefore the assessment should be done on a site by site basis for all mineral types.

**Q8 How important is it to maintain a geographical spread of sand and gravel quarries across the County (i.e. Idle Valley, near Newark and near Nottingham) to minimise the distance minerals are transported to markets?**

From a sustainability perspective NWT would hope to see transportation of large quantities of mineral reduced as far as possible, which might indicate that it would be better to seek to secure a spread of allocations which can serve the disparate markets, but local environmental constraints should be the principal and deciding factor.

**Q9 Would it be more appropriate to prioritise specific areas above others?**

Local environmental factors and impacts should be the principal consideration. Other factors such as the potential for the re-creation of landscape-scale habitats, for floodplain reconnection and natural flood management and the creation of important ecological stepping stones should all be accorded significant weight. It is essential that there is a stronger drive towards seeking to secure floodplain connection of restored sand and gravel

sites to the Trent and Idle, as part of mineral schemes, which would have significant biodiversity and flood storage benefits, as well as ensuring that mineral reserves are efficiently worked, where they lie below current floodbanks.

**Q10 Is it economical to transport mineral by river barge and if so should proposed quarries with the potential for moving sand and gravel by river barge be prioritised over other proposals?**

NWT do not have a view on the economic viability of barge transportation, but would expect a robust assessment of the potential environmental effects to be undertaken, before such an approach could be supported. Barge transport may have benefits with regard to reductions in HGV transport and greenhouse gas emissions, but may result in local environmental impacts to biodiversity, or water quality and hydromorphology.

**Q11 Are you aware of any other issues relating to Sherwood Sandstone provision that should be considered through the Minerals Local Plan review?**

Extensions to existing sandstone quarries may have impacts on priority habitats and species, including heathland, woodland, and nightjar and woodlark in the ppSPA. These factors should be taken into account when considering proposals on where best to allocate extensions. It should be noted that extensions of time may also result in unacceptable extensions of impacts of noise, vibration and dust on sensitive species, so this should also be considered. . If new or extended sites were to be under consideration for allocation, their potential to contribute to larger areas of heathland and acid grassland habitats and to the strengthening of an ecological network should be a heavily weighted factor. The potential strengthening of ecological networks can be calculated through the BOM model

**Q13 Are you aware of any other issues relating to crushed rock provision that should be considered through the Minerals Local Plan review?**

A spatial extension to Nether Langwith Quarry within the Plan period would have substantial implications for priority magnesian limestone habitats and nearby SSSIs. The calcareous habitats of the magnesian limestone are some of the scarcest and most threatened in the County, so this should be part of the considerations for any new sites or extension. If new or extended sites are to be under consideration for allocation, their potential to contribute to larger areas of calcareous habitats and to the strengthening of an ecological network should be a heavily weighted factor. The potential strengthening of ecological networks can be calculated through the BOM model

**Q15 Should the Plan identify a specific replacement quarry (remote extension / new site) to Dorket Head clay pit or should a criteria based policy be developed to ensure an adequate supply of clay can be maintained over the plan period?**

NWT consider that the higher level of certainty of location and outcomes for an allocation over a criteria-based policy can be beneficial for all parties, including local communities. A

known location enables a more accurate assessment of both impacts and potential restoration benefits at an early stage. A comparison of the relative disbenefits and benefits of sites at a plan-making stage also enables a more robust sustainability appraisal. If new or extended sites are to be under consideration for allocation, their potential to contribute to larger areas of priority habitats and to the strengthening of an ecological network should be a heavily weighted factor. The potential strengthening of ecological networks can be calculated through the BOM model. Habitats suitable for the brick-clay geology include native broadleaved woodland, species-rich neutral grassland, small ponds, marsh and reedbed. As with all new allocations and extensions, the potential for impacts on existing habitats and species should be a principal consideration.

**Q16 Is a criteria based policy the most suitable approach to cover the potential for new brick works and associated clay pits?**

For the reasons given in answer to Q16, NWT do not consider this to be the most suitable approach. If a criteria-based policy were to be developed, the ecological factors described in NWT's answer to Q15 should form part of those criteria.

**Q17 Should the plan seek to identify specific site allocations for gypsum provision or should a criteria based policy be developed to ensure an adequate supply of gypsum can be maintained over the Plan period?**

NWT consider that the higher level of certainty of location and outcomes for an allocation over a criteria-based policy can be beneficial for all parties, including local communities. A known location enables a more accurate assessment of both impacts and potential restoration benefits at an early stage. A comparison of the relative disbenefits and benefits of sites at a plan-making stage also enables a more robust sustainability appraisal. If new or extended sites are to be under consideration for allocation, their potential to contribute to larger areas of priority habitats and to the strengthening of an ecological network should be a heavily weighted factor. The potential strengthening of ecological networks can be calculated through the BOM model. Habitats suitable for the gypsum geology include species-rich calcareous grassland, native broadleaved woodland, small ponds and marsh. As with all new allocations and extensions, the potential for impacts on existing habitats and species should be a principal consideration.

**Q18 Are you aware of any issues regarding the provision of gypsum that should be considered as part of the Minerals Local Plan review?**

New or extended gypsum quarries can have an impact on existing calcareous habitats of value, and may also have the potential for the delivery of large scale calcareous and wetland habitats. An extension to underground Gypsum mining is likely to have relatively less impact on existing habitats, although impacts on water quality and quantity may be an issue. Such mines also offer little opportunity for habitat restoration, due to their relatively small footprint above ground.

**Q19 Are you aware of any issues regarding the provision of Silica Sand**

**that should be considered as part of the Minerals Local Plan review?**

There is currently an adequate supply for the Plan period and so no new allocation is needed. An extension of Two Oaks Farm Quarry could have impacts on nightjar and woodlark within the Sherwood ppSPA. It is essential that the Plan identifies the need for the Two Oaks Farm Quarry restoration to maximise its contribution to the re-creation and restoration of priority habitats, particularly heathland and acid grassland, so that it fully conforms with the principles of biodiversity-led restoration and the long term provision for the protection and management of the restored habitats is secured. These principles should inform the ROMP for this site.

**Q20 Are you aware of any issues regarding the provision of industrial dolomite that should be considered as part of the Minerals Local Plan review?**

Given that there is no exact confirmed location for the extraction of this mineral in Notts, we do not know what scarce and valuable habitats may, or may not, be present on any future proposed site. Given that the location would be in the Holwell area, however, of particular concern would be the potential loss of calcareous habitats and impacts on calcareous LWS and SSSI in that area.

**Q22 Are you aware of any other issues relating to building stone provision that should be considered through the Minerals Local Plan review?**

There would be ecological impacts from an extension at Yellowstone Quarry, given its proximity to LWS and a SSSI. Based on the current site, there is the potential for indirect impacts on local water courses through changes to water quality, and also on protected species. Thus any extension to the Yellowstone Quarry would need to be subject to the most robust assessment of the potential impacts on these habitats and species, both direct and indirect.

**Q23 Are you aware of any issues relating to coal extraction that should be considered through the Minerals Local Plan review?**

NWT agree that reworking of lagoons and tips for marketable coal fines is still a possibility. For potential sites, account should be taken of the existing wildlife value and also the potential for improved restoration over that which was undertaken previously, to achieve the re-creation of priority habitats, particularly heathland and acid grassland.

**Q24 Are you aware of any issues relating to hydrocarbon extraction that should be considered through the Minerals Local Plan review?**

NWT note that the focus in the text remains on reducing the impacts of the techniques of mineral extraction on climate change, whilst potentially supporting extraction of energy minerals which will fundamentally contribute to further greenhouse gas emissions. There should be greater emphasis on reducing hydrocarbon extraction per se, in order to meet national and global climate change reduction targets. With regard to the greenhouse gases

produced by different extraction methods, it is not clear how comparisons would be made as to the effectiveness of the different extraction methods for the energy produced versus the greenhouse gases released. This is particularly pertinent in relation to comparisons between coal, oil, CBM, CMM and shale gas. This requires explanation and clarification.

Oil - Specific consideration is needed for the requirement of new oil extraction schemes to result in enhanced priority habitats, as in some cases the relatively small scale of such scheme, but large number of sites, has led to incremental impacts and degradation of habitats over several years, which has led to an overall loss of biodiversity when considered in the round. This should be recognised in any future provision through a robust assessment of likely cumulative effects on biodiversity.

CMM - given the location of most suitable seams/former mine sites, specific reference should be made to the potential for disturbance to nightjar and woodlark and need to assess the cumulative effects of nitrogen emissions from burning CMM on sensitive heathland habitats.

CBM and Shale Gas - The relatively unproven nature of these technologies when applied to the UK should predicate a highly precautionary approach, particularly given the unpredictable nature of the behaviour of the sandstone geology of the County which overlays much of the northern shale beds. This unpredictability is evidenced both by deep-mine accidents in Sherwood in recent history where unexpected pockets of methane have been encountered in fractured stone and also by the above-ground subsidence effects of planned mining activity, which do not always appear to happen as predicted by the industry. Both CBM, and Shale Gas extraction through hydraulic fracturing have the potential for far-reaching impacts on the quantity and quality of surface and groundwaters and through effects of noise and vibration, which may impact valuable habitats and sensitive species. Robust and very precautionary assessment is therefore required of any such schemes.

**Q25 Do you agree with the proposed development management policy areas? Are there any others that should be covered?**

NWT agree strongly that DM policies are required for all the areas listed and consider that the following details should be taken into account when developing the policies:

- *Water resources and flood risk*  
All mineral schemes should meet the requirements of the Water Framework Directive. Particular regard should be given for the potential for mineral schemes to deliver reduced flood risk through incorporating Natural Flood Management and to improve the hydromorphology of rivers through floodplain re-connection, naturalisation of channels etc.
- *Agricultural land and soil quality*

NWT are mindful that mineral restoration decisions can create an apparent conflict between the need for restoration to biodiversity-rich habitats and a perceived need to retain



agricultural land. NWT recognise that agricultural land and B&MV soils are a finite resource, but it is a fact that land occupied by wildlife habitats is a far smaller resource and is subject to many pressures. Wildlife-rich land also provides a diverse landscape, contributes to many ecosystem services, and is often available for informal recreation, and so is highly valued by local people. Restoring mineral sites to wildlife-rich diverse landscapes, which they can access for informal recreation, can help to compensate local communities for the disruption and disturbance caused by a mining scheme.

Based on the proposed allocations in the previous version of the draft MLP, the total area that would be affected by schemes was approximately 800ha, thus if the new Plan contains a similar level of sites, and all were restored solely to priority habitats, this would amount to 0.5% of the 140,000+ha of farmland in the County, and thus would have no meaningful impact on food security at all, but would constitute a significant gain towards biodiversity targets, as the current area of biodiversity habitats is so small. It is also important to note that this not a permanent loss of land for food production (as it would be were it to be built on for example), as all the farmland was converted from habitats in the first place. Hence, in the unlikely event of a food security crisis, the land could be brought into food production again. It is also worth noting that land previously in food production is now also being used voluntarily for biomass energy production by farmers. Whilst NWT recognises that there may be issues relating to individual agricultural holdings and how they may be affected by restoration schemes on a small number of sites, this should be considered on a site by site basis and not as a means to undermine the overarching policy of biodiversity-led restoration.

There is also a distinction to be made between protecting agricultural land specifically and protecting B&MV soils. We consider that focussing more on the protection of B&MV soils as a finite resource is a more sustainable way forward than focussing on the need for land to be in agricultural product per se. The relationship between the conservation of soils and the potential to deliver habitats is an important consideration and should reflect that several of the priority habitats such as species-rich grasslands, floodplain grazing marshes and heathland can be managed through extensive grazing, which is a form of pastoral farming.

Government Policy for more than 20 years has been to reduce the amount of land in agricultural production and to increase the land managed for conservation, through agri-environment subsidies. Mineral extraction provides a means to achieve this aim, without recourse to public funds. NWT recognises that B&MV agricultural soils are important in terms of food security, but this should be viewed in context of the many millions of pounds that have been paid to farmers to take land **out of** agricultural production through Countryside Stewardship Schemes by DEFRA, with the specific aim of trying to protect, conserve and increase biodiversity and also to enhance the landscape. In Nottinghamshire this equates to 112,559ha in some form of Stewardship, out of a total farmed area of 140,797ha, which is 79.9% of the farmland (Defra 2010 data).

These publicly funded environmental land management schemes (ELMS) are part of the Government drive to deliver the challenging targets in “Biodiversity 2020: A strategy for England’s wildlife and ecosystem services”<sup>1</sup>. Public bodies have a statutory duty under the NERC Act to contribute to the conservation of biodiversity and to help to achieve these

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<sup>1</sup> **Biodiversity 2020: A strategy for England’s wildlife and ecosystem services, [Department for Environment, Food & Rural Affairs](#), 19 August 2011**

targets. Mineral extraction and the subsequent land reclamation provides an almost unique opportunity (because of its scale and the transformative potential that results from the mass movement of soils and changes to hydrology) to restore and re-create our most important BAP/Section 41 habitats on a meaningful scale, and so is an opportunity that should not be squandered.

For some habitats, conventional agricultural profiles can be restored and the habitats established on top, so that were a real food security crisis to occur, the land could be returned to intensive agriculture. These habitats could include woodlands and certain types of grassland.

Other habitats, such as heathland, are more effectively restored on thinner soil profiles, with less topsoil,. In this case the topsoil could be used either by concentrating it within some areas of the site to create deeper profiles for other habitats, or preferably used elsewhere off-site to augment and improve existing farmland. In this latter case the soils are conserved and put to better use elsewhere to increase productivity. Hence it is the soils that are of value to food production, not the area of land per se.

- *Protection and enhancement of biodiversity and geodiversity*

NWT welcome the strong recognition for the need for both protection and enhancement of biodiversity and geodiversity. It is essential that the Plan emphasises the requirement to follow the Mitigation Hierarchy ie. the need to prioritise the avoidance of impacts, *before* mitigation and compensation are considered.

NWT expect to see the recognition of the importance of all ecologically important sites, including SSSIs, the SAC, NNR the ppSPA and Local Wildlife Sites, and the need to protect them. LWS constitute irreplaceable natural capital, particularly in Nottinghamshire where we have a low coverage of SSSIs (3,135ha out of 216,000 total area of the County, which is 1.45%) compared to other Counties, so the habitats within LWS represent a crucially important biodiversity resource and are irreplaceable natural capital. If we are to achieve landscape-scale conservation in Nottinghamshire, in line with the Lawton recommendations, it is essential to protect LWS as they contain the species that will be needed to colonise the new areas of restored habitats. In addition, because the SSSI suite is nationally representative, *not comprehensive*, there are LWS that may be nationally important, but have not been designated as SSSIs.

There is no specific reference to air pollution in the list of DM policy areas. It may be that this would be considered under Local Amenity, however it is important to note that this is also particularly relevant to habitats too. Nitrogen deposition is considered one of the greatest threats to habitats across Europe, with particularly severe effects on habitats such as heathland which require low nutrient levels. Increases in Nitrogen act as fertilisers in such habitats leading to a loss of species diversity. For the MLP, this is particularly pertinent to sandstone extraction in the Sherwood area and to emissions from hydrocarbon extraction. The impacts of ammonia and particulate emissions should also be a consideration in DM policies.

- *Airfield safeguarding*

Safeguarding is obviously important but should also be underpinned by robust science and a reasonable approach, in order to prevent interpretation that prevents restoration of a wide range of wetland habitats across large areas of the County.

- *Planning obligations*

Planning obligations are essential in ensuring the long term protection and management of restored habitats, and developers should be expected to bring forward proposals to meet these requirements at the earliest stage, before determination.

- *Restoration, afteruse and aftercare*

NWT welcomes NCC's commitment in this Plan to ensure that mineral schemes can help Nottinghamshire is to meet its local and national targets for protecting, conserving and enhancing biodiversity.

It is important, to recognise that all types of mineral extraction can lead to significant habitat gains through biodiversity-led restoration, and so use should be made of the outcomes of Biodiversity Opportunity Mapping by the Biodiversity Action Group across the County. Some of these areas, such as within Sherwood Forest, have the potential to deliver restoration of lowland heath, and limestone extraction in the west of the County may contribute to the creation of calcareous grasslands, both of which habitats are internationally scarce, hence it is important that the potential for the full range of habitats being delivered through mineral restoration be explicit in the DM policy. NWT have long identified Living Landscape areas in the County where the re-creation of ecological networks is of the highest priority, many of these coincide with areas of potential mineral extraction, and so are pertinent to this Plan. A map of the Living Landscape Areas is attached.

It is also essential that the biodiversity benefits required under restoration schemes can be maintained in the long term. There is no meaningful benefit to biodiversity, landscape quality or local communities if the habitats are ploughed up, or fall out of suitable management, as soon as the aftercare period has ended. In order to achieve this, it is important to ensure that long term financial provision (or some other mechanism) to maintain those habitats is agreed before the application is determined. There have been examples of where restored habitats have been lost as a result of cessation of appropriate management after the end of the statutory aftercare period. Excellent examples of long term provision have been agreed in Nottinghamshire for some sites, and can be used as an exemplar in the future. This would not only ensure that a meaningful and lasting contribution to biodiversity targets has been made, but also that local communities can have certainty of long term landscape quality as recompense for the loss of amenity experienced as a result of the scheme. This is essential to the delivery of the biodiversity-led approach and should be explicit in DM policy.

The use of site restoration briefs at an allocation stage in the previous version of the draft MLP was an exemplary and constructive approach and should be replicated in this Plan, and the creation of priority biodiversity habitats should be the primary restoration aim for all allocations and extensions.

It is also important to recognise that mineral extraction can present opportunities to re-create habitats that are hard to re-create on intensively farmed land, due to the years of soil modification for farming that have resulted in very high nutrient levels and high alkalinity (from the addition of lime) and also the existence of extensive under-drainage infrastructure. Heathland restoration on arable land, for example, requires intensive removal of nutrients through either top-soil stripping or the growing of sacrificial crops for at least 2 years, combined with the addition of large quantities of acidic material to lower the pH. Thus large scale habitat re-creation of heathland can be far more easily, and effectively, achieved through prioritising restoration of suitable mineral sites where the substrate is acidic, and has low nutrient status, such as on colliery tips and sand quarries. This is a far more effective way to recreate these national priority habitats for the public good, as a byproduct of the private sector minerals industry, than by publicly funded schemes on land that requires substantive, and unsustainable, amelioration.

Through the BOM project it will be possible set robust habitat targets for each NCA in the County and as a result, during the development period of this new Plan it will be possible to set scientifically robust minima habitat targets that could be achieved through mineral schemes.

Using the existing NE Natural Character Area approach the key habitats for each NCA in the County are shown below, those in italics are the most difficult to re-create and/or reliant on very specific geological or topographical conditions which can often be readily achieved through mineral extraction, as described above, this can be used to inform the restoration details of the MLP.:

**Sherwood:** *lowland heath, acid grassland*, small ponds (especially for amphibians), marsh, oak-birch woodland

**Southern Magnesian Limestone:** *calcareous grassland*, ash-dominated woodland, streams, ponds, hedgerows

**Coal Measures:** *wet grassland/floodplain grazing marsh*, species-rich neutral grassland (meadows), ponds, rivers and streams, oak-dominated woodland, *acid grassland/lowland heath*, hedgerows, ditches

**Humberhead Levels:** rivers and streams, *fen*, marsh, *floodplain grazing marsh/seasonally wet grassland, reedbed*, wet woodland, acid grassland (*where it abuts the northern outreach of the sandstone*), *including channel re-braiding and reconnection*, hedgerows, ditches.

**Trent Valley and Rises:** : rivers and streams, *swamp, marsh, floodplain grazing marsh/seasonally wet grassland, reedbed*, wet woodland, *acid grassland and heath (on blown sands)*, *including channel re-braiding and reconnection*, open water, hedgerows, ditches.

Within each NCA there are also many complexities, which should be taken into account in the design of restoration schemes eg, the coal measures and magnesian limestone can occur concurrently, such as in Ashfield, leading to complex mosaics of acidic and calcareous habitats. For this reason, even with good guidance for the restoration of biodiversity as described above, it is essential that the details of restoration plans are discussed with local ecological consultees at a pre-application stage, who have the local

knowledge to make informed judgements as to what is most suitable on a site by site basis, within the overarching guidance.

Mineral extraction can provide an opportunity to reconnect rivers to their floodplains and thus to both contribute to biodiversity targets and to sustainable flood management. Connections may take the form of new channels, the installation of pipe-connections, the re-creation of meanders, reduced bank height to encourage overtopping, removal of minor floodbanks through extraction, and re-braiding of smaller watercourses. Most of these measures will also contribute to meeting a variety of WFD objectives (and requirements under the Eel Regulations) and will bring other ecosystem services benefits. DM policies should recognise this potential.

- *Incidental mineral extraction*

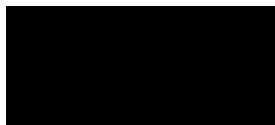
Cases have arisen previously in the County where substantive mineral extraction has been proposed as incidental to other development such as commercial fish ponds, or creation of a marina etc. NWT welcome the recognition that this requires a robust DM policy to control this type of development.

- *Mineral exploration*

Mineral exploration can cover large areas and may have cumulative impacts, and should be subject to robust assessment for its likely effects on habitats and species.

Please do not hesitate to contact me if you have any queries about the above or if I can provide more information. I look forward to continuing to work closely with the MPA in the development of this important Plan.

Yours sincerely,



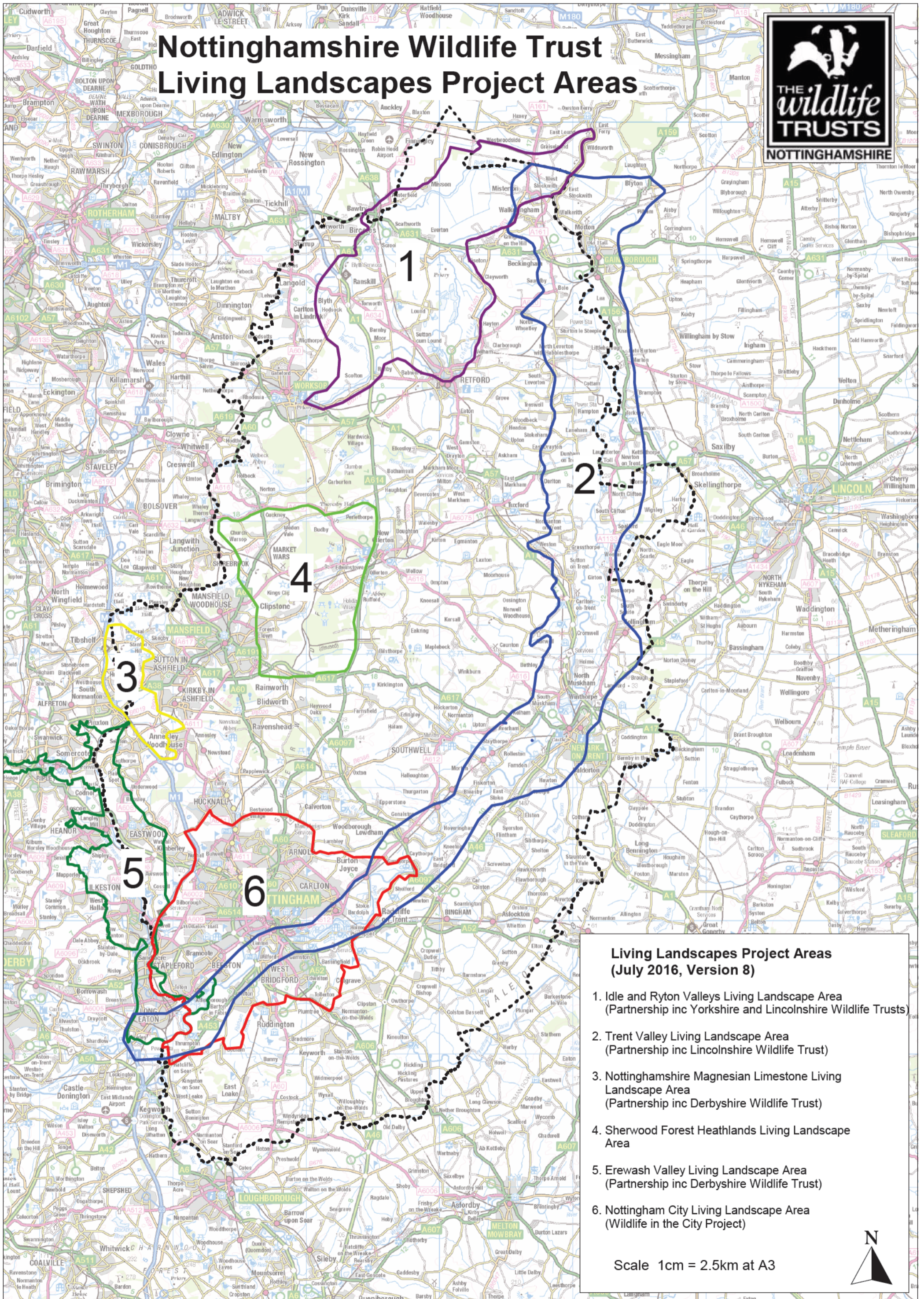
Janice Bradley C.Env, MCIEEM

Head of Conservation

cc. Nick Crouch, NCC

enc. Living Landscapes Map

# Nottinghamshire Wildlife Trust Living Landscapes Project Areas



## Living Landscapes Project Areas (July 2016, Version 8)

1. Idle and Ryton Valleys Living Landscape Area  
(Partnership inc Yorkshire and Lincolnshire Wildlife Trusts)
2. Trent Valley Living Landscape Area  
(Partnership inc Lincolnshire Wildlife Trust)
3. Nottinghamshire Magnesian Limestone Living Landscape Area  
(Partnership inc Derbyshire Wildlife Trust)
4. Sherwood Forest Heathlands Living Landscape Area
5. Erewash Valley Living Landscape Area  
(Partnership inc Derbyshire Wildlife Trust)
6. Nottingham City Living Landscape Area  
(Wildlife in the City Project)

Scale 1cm = 2.5km at A3

