Bigger and Better

How Minerals Local Plans can help give nature a home on a landscape scale in the Trent and Tame River Valleys.
The Trent and Tame River Valleys will once again be one of Britain’s greatest wetlands, providing a wetland artery for wildlife, flowing from source to sea in an attractive, multifunctional and inspiring landscape loved and valued by all.

Our 2050 vision

The Trent and Tame River Valleys once contained a wealth of wetlands. However, over the last hundred years or so, most have been lost or degraded due to drainage, agricultural improvement, built development or neglect. Few wetlands of high nature value remain and most of those that survive are fragmented and isolated. The wildlife that depends on them is now more vulnerable than ever. If we significantly extended the area covered by wetland habitats (e.g., by doubling the area of reedbed) we could secure the future of the most threatened species.

The challenge

The Trent and Tame River Valleys once contained a wealth of wetlands. However, over the last hundred years or so, most have been lost or degraded due to drainage, agricultural improvement, built development or neglect. Few wetlands of high nature value remain and most of those that survive are fragmented and isolated. The wildlife that depends on them is now more vulnerable than ever. If we significantly extended the area covered by wetland habitats (e.g., by doubling the area of reedbed) we could secure the future of the most threatened species.

A new approach

Mineral site restoration in the Trent and Tame River Valleys has already resulted in the creation of some high-quality wetlands.

However, most of these restorations are planned on a site-by-site basis. To halt and reverse the ongoing decline in wetlands and associated wildlife, we need to move towards a more strategic, co-ordinated and landscape-scale approach to wetland habitat creation.

In this way, mineral sites can collectively deliver more for wildlife than they could individually. In other words, “the whole will be greater than the sum of its parts”.

By taking this approach, we can realise a wide range of additional benefits and achieve better integration with economic growth and development.

The opportunity

Current mineral sites and proposed mineral allocations in the Trent and Tame River Valleys cover approximately 8,000 hectares (ha) – roughly equivalent to the area covered by the City of Nottingham.

The restoration of these sites provides the most significant opportunity to halt and reverse the decline in wetlands in the Trent and Tame and to create some of the best wetland areas in Britain. The scale and location of this opportunity is clearly shown on the map overleaf.

Why now?

All six Mineral Local Plans (MLPs) covering the area – Derbyshire, Leicestershire, Lincolnshire, Nottinghamshire, Staffordshire and Warwickshire – are being reviewed over a similar timeframe. Consultations on draft plans are taking place now (2015–16).

This offers us a unique opportunity to develop minerals planning policies that promote the strategic, co-ordinated and landscape-scale approach consistently across county boundaries. This, in turn, will help to establish a coherent and resilient network of wetlands across the whole of the Trent and Tame River Valleys.
What are wetlands?

A wetland is any area of land that is wet or damp for periods of time. In the Trent and Tame River Valleys, the priority wetland habitats are reedbeds, floodplain grazing marsh (wet grassland), wet woodland, lowland fen, lowland meadows and rivers. At a smaller scale, ponds and ditches also provide important wetland features within the wider landscape.

These habitats are preferable to large lakes as they are a higher priority for nature conservation and because large areas of open water already exist.

Rivers are a vital part of wetland habitats in the valley. All the rivers here have been heavily dredged and straightened and are now largely isolated from their floodplains.

We need to find ways to re-naturalise existing river channels, create new channels and features like ox-bow lakes, and re-connect the river to the floodplain and new wetlands. In this way, rivers can once again provide an artery linking all the wetlands in the Trent and Tame.

What do we mean by landscape scale?

“Landscape scale” means considering the whole landscape of an area, in order to make it more ecologically coherent. It is about delivering more places for nature that are bigger, better and joined up.

Small wetlands can have high value for many species like amphibians and dragonflies, and the opportunity for creating these should not be ignored. However, bigger wetlands (ie, wetlands larger than 100 ha, or even 200 ha):

- Can accommodate healthy populations of all the species associated with wetland habitat;
- Are more resilient to climate change;
- Are usually cheaper and easier to manage – hectare for hectare – than smaller, more fragmented sites; and
- Are more likely to attract newly-colonising species (eg, purple heron and spoonbill).

In many cases, creating wetlands at this scale will require a co-ordinated approach across clusters of mineral sites, for example, through the creation of “masterplans”.

This co-ordinated approach can deliver larger blocks of a smaller variety of wetland habitats on individual sites, whilst still providing the full suite of wetland habitats across the cluster. Small-scale habitat variety and transitional habitats would still be important components within these larger blocks of wetland habitat.

A key component in delivering better (ie, higher quality) wetlands will be for mineral operators, landowners and Mineral Planning Authorities to find long-term solutions for funding habitat management. A co-ordinated approach can help to provide the most appropriate combination of habitat management with complimentary, revenue-generating after-uses.

Mineral site restoration can also help to deliver more wetlands, helping to make the ecological network of the Trent and Tame River Valleys more joined up.
The scale of the opportunity in the Trent and Tame

**Key:**
- Each square equals 100 ha.
- Clusters of sites have been defined based on mineral sites and existing habitats less than 1 km from each other.
- Existing wetlands and semi-natural habitat.
- Current workings, comprising operational sites and permitted reserves.
- Potential future resource, based on proposed and potential allocations as at December 2014.
- Site boundaries corresponding to the area data.
- Trent and Tame River Valleys.

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**Water voles**
Water voles can do well in a wide range of wetland habitats, including ditches in wet grassland and reedbeds. They need only relatively small areas of habitat, but the right sort of management is crucial.

**Wading birds**
Breeding numbers of lapwings, curlews, snipe and redshanks in this landscape have crashed since the 1980s; large wet grasslands (≥200 ha) stand the best chance of attracting all four species back again.

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**Case studies**

- **Floodplain grasslands on the Idle Washlands**
  - Floodplain grasslands and washlands can provide flood mitigation and sustainable farming for communities, as well as benefits for wetland wildlife.

- **Reedbed at Langford Lowfields**
  - Reedbeds provide essential habitat for some of our rarest wildlife, such as bitterns, water voles and eels. Trails and viewpoints offer local people new opportunities to enjoy the restored landscape.

- **Wet woodland at Attenborough Lakes**
  - Willows can be home to more scarce insect species than oak trees. Wet woodland can help reduce flood peaks. It offers water quality and carbon storage benefits, as well as wildlife and landscape value.

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**In-channel enhancements**
In-channel enhancements to rivers bring landscape, fishery and wildlife benefits and can help avoid sterilising mineral resources.

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**Bitterns**
Bitterns need large (≥50 ha) wet reedbeds full of fish and amphibians to breed successfully; what’s good for bitterns is great for hundreds of other species too.
What are the wider benefits of wetland creation?

A landscape-scale approach to wetland habitat creation provides significant benefits for wildlife. But people benefit too. Habitat creation provides an important range of economic, social and cultural advantages, including:

- **Flood mitigation**: wetlands in floodplains provide valuable floodwater storage, which can reduce downstream peak flood flows and the need for hard flood defences in urban areas downstream.
- **Water quality**: wetlands can help to reduce the cost of water treatment by removing impurities and pollution.
- **Health and wellbeing**: spending time around, or looking at, a wetland landscape can significantly increase your feelings of self-esteem, improve your mood and reduce your blood pressure.
- **Access and recreation**: wetland creation can provide new and improved opportunities for access to greenspace and informal recreation.
- **Local economy**: wetlands can provide a focal point for tourism and economic regeneration, bringing in money, investment and creating new jobs – please see the following case study.

Taking a co-ordinated approach to wetland creation can help to deliver win-win outcomes for all of these issues.

Again, bigger is better. For example, creating bigger wetlands in the floodplain will have a more significant impact on reducing downstream peak flood flows. Bigger wetlands can also offer a greater wildlife spectacle for visitors all year round, as well as a greater variety of recreational opportunities, providing the potential for larger tourism revenues.

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**Case study**

**Attenborough nature reserve**

Nottinghamshire Wildlife Trust’s Attenborough nature reserve provides a good example of the direct economic benefits that can be brought to the Trent and Tame River Valleys by creating and managing wetland habitat for nature and for people:

- 250,000 annual visitors to the Nature Centre and an estimated 600,000 using the nature reserves for leisure and commuting;
- £625,000 annual visitor spend at the Nature Centre;
- 12 FTE jobs supported by the Wildlife Trust and trading company.
How can the MLPs help?

The six MLPs can help to deliver our 2050 vision for the Trent and Tame River Valleys in the following ways:

- Refering to this document;
- Promoting a strategic, co-ordinated and landscape-scale approach to the creation of wetlands at all levels of the MLP;
- Promoting a co-ordinated approach to wetland creation and other after-uses across clusters of mineral sites (eg, through commissioning masterplans for all key clusters);
- Identifying how wetland habitat creation in the MLP area can contribute to establishing a coherent and resilient ecological network across the whole of the Trent and Tame;
- Developing a biodiversity-led restoration strategy by making biodiversity the primary consideration for mineral site restoration;
- Identifying how the Mineral Planning Authority (MPA) will work with other stakeholders to ensure that wetland habitat creation delivers the wider range of strategic benefits identified in this document.

- Implementing these existing best-practice biodiversity principles consistently across all MLPs:
  - Delivering a net gain in biodiversity for all mineral developments;
  - Contributing to the delivery of national and local biodiversity targets and landscape-scale conservation projects;
  - Protecting what we’ve got by providing an appropriate level of protection for designated sites and priority habitat;
  - Securing the long-term management of new wetlands;
  - Avoiding habitat packing, where small areas of lots of habitats are packed into a site;
  - Making the best use of available inert fill, especially across clusters of mineral sites, to maximise the area of wetland habitats and minimise the area of open water.

Some of the MPAs are already leading the way in these areas – if we could achieve more consistency across the whole of the Trent and Tame, nature and communities will benefit.

Working in partnership

There is a strong network of existing partnerships and partners in the Trent and Tame. Between us we have a wealth of local knowledge, expertise, experience and time to help MPAs deliver the new approach – and achieve the vision – set out in this document.
Summary

This document sets out a vision for the Trent and Tame River Valleys to become one of Britain’s greatest wetlands, providing a wetland artery for wildlife, flowing from source to sea in an attractive, multi-functional and inspiring landscape loved and valued by all.

It highlights the scale of opportunity provided by minerals planning and mineral site restoration to help deliver this vision and the multiple benefits that this can bring, for both people and wildlife.

The purpose of this document is to influence all of the developing MLPs that cover the Trent and Tame – Derbyshire, Leicestershire, Lincolnshire, Nottinghamshire, Staffordshire and Warwickshire – so that they support the delivery of this vision. In particular, it promotes a strategic, co-ordinated and landscape-scale approach to wetland habitat creation through mineral site restoration, across MPA boundaries.

It is intended that the document will be referred to in all of these MLPs and help the MPAs to set appropriate objectives, policies and supporting text. In this way, we hope that the MLPs will collectively help to deliver more for people and for wildlife, through wetland habitat creation on mineral sites, than they would individually – the whole will be greater than the sum of its parts.

We also hope to gain support for the suggested vision and approach amongst all relevant stakeholders, including mineral operators, landowners, local communities, local authorities, NGOs and statutory agencies.

Where has this come from?

This document summarises the joint vision and approach developed by stakeholder organisations through two minerals planning workshops for the Trent and Tame, in 2013 and 2014.

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