APPENDIX 4: TABLE 8.1: UK Biodiversity Action Plan (UK BAP) and Local Biodiversity Action Plan (LBAP) Habitats

HABITAT	LANDSCAPE FEATURES INCLUDED	IMPORTANCE	KEY THREATS
Ditches	Narrow channels dug to hold or carry water, normally created for drainage to take water away from low lying areas, to help to drain water alongside roads or fields, or to channel water from a more distant source for crop irrigation	Similarly to canals these water channels provide a habitat for aquatic and emergent plants, and associated invertebrates, fish and semi-aquatic mammals.	• Inappropriate management • Run-off from adjacent fields and roads • Management of adjacent agricultural land, cattle damage to banks • Harsh vegetation management • The invasion and spread of alien and invasive species
Eutrophic and mesotrophic standing waters	Examples of standing waters are ponds, lakes, flooded gravel pits and reservoirs. Classified as Eutrophic or Mesotrophic according to the amount of plant nutrients such as phosphorous and nitrogen present in them.	Relatively few natural standing waters in Nottinghamshire, although a significant number of natural ponds and oxbows occur along the Trent floodplain. Important habitat for a variety of species.	• On-going fertiliser run-off • Pollution from organic matter, silt, hydrocarbons and heavy metals from farmland • Lowered water levels • Changes in surrounding land use, leading to the loss of adjacent habitats • The restoration of silted up ponds by dredging • Standing waters fed by surface runoff will suffer if this is diverted away from them by drainage systems • The in-filling of water bodies for agricultural improvement • Recreational uses such as angling, boating and water skiing • The introduction of inappropriate numbers and species of fish
Farmland	Arable farmland, arable field margins and improved grassland	Provide important habitats for many bird species, mammals such as the harvest mouse and insects.	The main factors affecting the county's arable field biodiversity are: • Crop density and time of planting • Reduction in mixed farming • Lack of field margins adequate to support birds, mammals and insects • Land drainage • Herbicide use prevents growth of annual seed-bearing and insect supporting plants • Insecticide use limits invertebrate number The main factors affecting the county's permanent grasslands in addition to those listed above include: • Early grass cutting • Over- and under-grazing • Lack of infrastructure support for stock farming • Modern worming treatments

HABITAT	LANDSCAPE FEATURES INCLUDED	IMPORTANCE	KEY THREATS
Hedgerows	Including ancient and/or species rich hedgerows	Important habitat for invertebrates, birds, and mammals such as bats, harvest mice, stoats, weasels and hares	• Loss and fragmentation due to intensified farming practices • Inappropriate management • Cutting hedges all at once • Disturbance of leaf litter, which is an important habitat • Chemical pollution from spray and fertiliser drift, and pesticides • Cultivation right up to hedge base • Automatic removal of dead wood from hedgerows
Lowland calcareous grassland	Calcareous grasslands are found in Nottinghamshire mainly on the shallow lime-rich soils of the Magnesian Limestone ridge in the west of the County.	Calcareous grasslands are often species-rich, including a wide variety of animals such as the Common Lizard.	• Clearance of grassland for industrial and urban development • Agricultural intensification • The lack of available livestock, leading to the invasion and spread of coarse grasses • Quarrying for limestone and subsequent land fill operations • Air pollution, in particular soil enrichment due to nitrogen deposition • Lack of incentives for private landowners to manage small grassland blocks • Increasing habitat fragmentation
Lowland dry acid grassland	Dry acid grassland comprises a mixture of wavy hair-grass, common bent, sheep's fescue, heath bedstraw and pill sedge occuring on nutrient-poor dry acid soils	Important for a range of specialist and declining fauna and a variety of reptiles and birds	• Lack of traditional management such as light grazing • Agricultural intensification • Loss, fragmentation and disturbance • Introduction and spread of non-native and other inappropriate plant species • The spread of bracken • Recreational pressure and proximity to urban areas • Atmospheric pollution, especially deposition of nitrogen compounds • Conversion to heathland and woodland
Lowland heath	Associated with Triassic sandstone ridges and outcrops. Includes dry heath an wet heath	Rapidly declining resource for ericaceous plant species	• Tree and scrub invasion • Invasion of bracken • Loss of structural diversity through lack of appropriate management • Nutrient enrichment • Damage from recreational demands • Uncontrolled fires • Fly tipping • Development, unlawful encroachment and introduction of garden escapes • Plant collecting • Falling water tables

HABITAT	LANDSCAPE FEATURES INCLUDED	IMPORTANCE	KEY THREATS
Lowland wet grassland	Defined as periodically flooded pasture or meadow, and includes floodplain grassland, washlands and water meadows.	Important grazing marsh habitat for a variety of species	• Lack of knowledge about extent and quality of resource • Small size and fragmented nature of the overall resource • Agricultural intensification • Insufficient water supply • Poor water quality at some sites due to pollution of water courses • Lack of appreciation of the wildlife and wider benefits • Lack of funds for the rehabilitation of wet grassland
Mixed Woodland	Canopy species in ancient woodland mostly consists of Ash and Pedunculate oak	Ash woodland consists of a wide variety of trees and scrub, rich ground flora, and bird life including Tawny owls and Wood Peckers.	• The invasion and spread of non-native species • Removing dead wood • Inappropriate management • The use of inappropriate planting designs • The historical replacement of native broad-leaved trees • Loss to development • Air pollution • Impoverishment of surrounding countryside • Muntjac deer
Oak-birch woodland	Pedunculate oak and silver birch are the principal tree species, ground flora is dominated by wavy hair grass and bracken with a range of other grasses and herbs	Supports a high diversity of wildlife. Bats such as noctule and brown long-eared bat roost and hibernate in the trees. The woodlands also support a diverse fungal community	• The loss of forest to agriculture, mineral extraction and development • The replacement of native broad-leaved trees with non-native conifers • The increasing dominance of the woodland ground flora by bracken • Removing dead wood • Increasing summer droughts and reduction of water levels • Air pollution • Deer grazing • Inappropriate management • Conflicting interests between tourism and the conservation management

HABITAT	LANDSCAPE FEATURES INCLUDED	IMPORTANCE	KEY THREATS
Parkland and wood pasture	Characterised by large, open-grown or high forest trees at various densities in a mosaic of grassland and/or woodland floras or, in the Sherwood context, this may be grass-heath or heather dominated sward.	Many ecologically valuable parklands in Nottinghamshire. Important habitats for flora and invertebrate fauna. Sherwood is internationally important for its saproxylic coleoptera (beetles associated with dead wood habitats) and supports many scarce moths	• Inappropriate management • Felling and removal of veteran trees • Poor practice in extraction techniques • Damage to ground flora and tree roots from excessive visitor pressure • Declining flora and fauna within the remaining fragments of wood pasture • Deposition of nitrous gasses • Increasing age of ancient trees • Neglect and loss of expertise of traditional tree management techniques • Loss of ancient trees through disease • Changes to ground-water levels leading to water stress and tree death • Pasture loss through conversion to arable • Pasture improvement through reseeding problems with over-grazing leading to bark browsing • High stocking levels (of livestock)
Planted coniferous woodland	This type of woodland includes all coniferous stands that are composed wholly or mainly of planted non-native conifer species and where native (broadleaved) trees make up less than 20% of the total cover, with the exception of yew and Scots pine.	Many planted forests have displaced other habitats that had significant biodiversity value, such as heathland or native woodland. But woodland rides and glades are important for vascular plants and invertebrates	There is no particular threat to the conifer resource as a whole although some factors could either reduce the existing wildlife interest of plantations or mean that potential improvements are not realised. These include: • Insect damage from imported pests can devastate forests • Prospect of shorter rotations or deferred thinning as timber processing becomes more efficient and timber markets change • Recreational pressures • Rides becoming overgrown and shaded
Traditional Orchards (currently in draft form with no habitat data available)			

HABITAT	LANDSCAPE FEATURES INCLUDED	IMPORTANCE	KEY THREATS
Reedbed	Composed largely of common reed, and are often associated with areas of open water, ditches, and other wetland habitats	They provide important habitats for a wide range of species. However reedbeds have suffered huge declines in postwar years and also declined substantially in terms of habitat quality	• Lack of knowledge about extent and quality of resource • Small size and fragmented nature of the overall reedbed resource • Insufficient water supply to reedbed sites due to flood protection schemes • Poor water quality at some sites due to pollution • Lack of appreciation of the wildlife and economic benefits
Rivers and Streams	Within Nottinghamshire there are 20 rivers designated as 'main river' by the Environment Agency. Of these only the Trent, Soar and Idle are classed as lowland rivers, with deep wide profiles and slow flows. The remaining watercourses are generally faster flowing with a mixture of habitat types.	Water courses provide important habitat for wildlife, but also important that adjoining habitats, extending to the whole floodplain, are considered. Many species need marsh and pond habitat as well to survive	• Physical modification and management for drainage • Abstraction of water from the river or groundwater • Diffuse or point source pollution • Use of adjoining land for intensive agriculture • Mineral extraction • The spread of non-indigenous species.
Unimproved neutral grassland	'Unimproved' grasslands occur in small fields as hay meadows and pastures, and as fragments on road verges, golf courses, churchyards and other non-agricultural land. Characterised by a mixture of grasses and herbaceous species	Nottinghamshire's unimproved grassland is declined and Lowland hay meadow is an internationally rare and threatened habitat, and some types are identified as a priority under European law.	• Agricultural improvement through drainage • The shift from hay making to silage production • Inappropriate management • Lack of aftermath grazing following cutting, • Supplementary stock feeding, • Application of herbicides and pesticides • Atmospheric nutrient input • Loss of species due to heavy grazing pressure

HABITAT	LANDSCAPE FEATURES INCLUDED	IMPORTANCE	KEY THREATS
Urban habitats Also additional category Open Mosaic Habitats on previously developed land	Most urban areas contain a network of inter-linked green corridors and spaces, which the UK Biodiversity Action Plan divides into four main types: 1. Remnants of semi-natural habitats such as ancient woodland and river corridors. 2. Pre-industrial rural landscapes with arable land, meadows and villages. 3. Managed green space, such as parks, gardens, roadside verges and churchyards. 4. Naturally seeded urban areas such as demolition sites	Interlinked habitats in urban areas gives bats, kestrels, great crested newts and rare species such as ground nesting bees the mixture of breeding, foraging and sheltering areas they need	• The loss of 'brownfield' sites and green corridors to development • Unsympathetic urban regeneration and reclamation projects, particularly the use of non-native species in landscaping and planting schemes • Changes in industrial processes such as mining • Inappropriate management of greenspace • The decontamination of land of ecological importance • Damage to sites • Pollution of air, water and soil • Built development in flood plains, • The accidental or deliberate introduction of aggressive non-native plant species,
Wet broadleaved woodland	Wet broadleaved woodlands occur on poorly drained or seasonally wet soils and generally found along river valley floodplains and mostly comprise a canopy of alder or willow	Important habitat for wide variety of plant species making up the ground flora. A high diversity of invertebrates, such as craneflies, hoverflies and snails, are associated with wet woodland, whilst plantations of poplar in the County have been found to harbour a number of scarce moth species.	• Loss of woodland • Excessive abstraction from aquifers and surface waters • Flood prevention measures, river control and canalization • The excessive grazing of wet woodlands • Removing dead wood • Lack of appropriate management such as rotational felling or coppicing • The threat to alder from Phytophthora root disease. • Invasive or introduced species • Poor water quality