

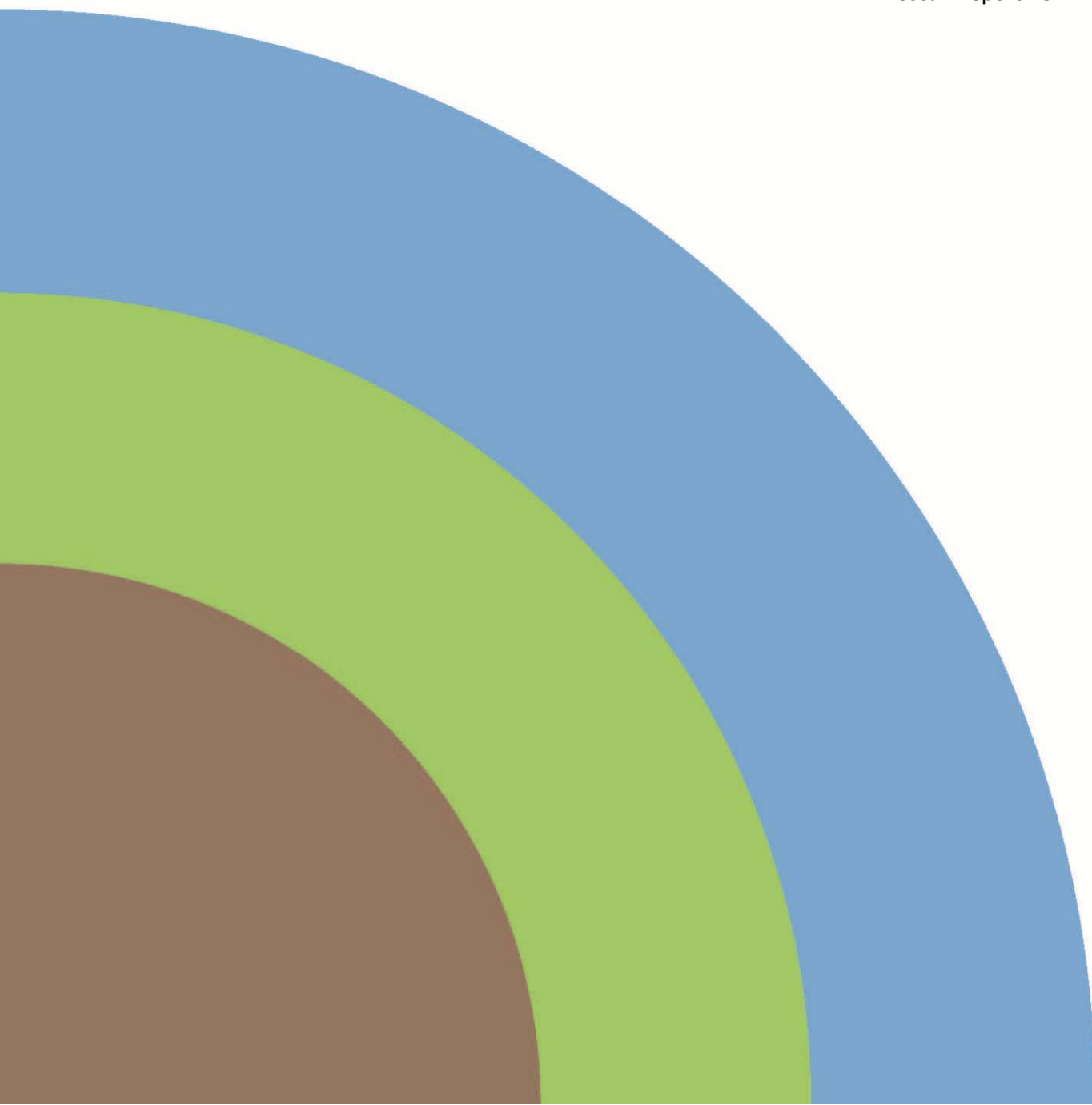


LAND AT CONNINGBROOK LAKES, ASHFORD

Ecological Management Strategy

October 2012

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Figure 1: 2012 Habitat map

Figure 2: Management compartments

Appendix 1 River Great Stour Local Wildlife Site boundary map



1 SUMMARY DESCRIPTION

Site name:	Conningbrook Lakes, Ashford
Site status:	The site contains part of the non-statutory River Great Stour Local Wildlife Site
Location:	OS grid reference for the centre of the site is TR032438. Nearest post code is TN24 9QX
County:	Kent
Local Planning Authority:	Ashford Borough Council
Approximate Area:	52.24ha
NE Local Team:	Ashford, South East Region (tel: 0300 060 6000)
Summary Description	The site is situated to the north-east of Ashford, and is enclosed by the River Great Stour to the east, the Ashford to Canterbury railway to the west and Willesborough Road to the south. It consists of a number of flooded gravel pits in varying states of maturity, together with associated terrestrial habitats dominated by grassland and young woodland.
Existing Management:	Outside the existing working areas, management is primarily a combination of mowing and grazing with sheep. No active management appears to occur within the various woodlands.
Rights of access:	A Public Right of Way passes through the northern end of the site and along the edge of the River Great Stour. The site is also regularly accessed by members of Mid Kent Fisheries who use the site for angling under permit.

2 BASELINE INFORMATION

2.1 Designations

- 2.1.1 Although no part of the site has a statutory designation, the non-statutory River Great Stour Local Wildlife Site (LWS) forms the eastern boundary of Conningbrook Lakes. The designation boundary has been extended in recent years to include the central lake (L2) and its surrounding woodland within the site, as well as the river itself. The relevant extract from the Kent Wildlife Trust's (KWT) designation boundary map for this LWS can be found at Appendix 1.
- 2.1.2 The River Great Stour in this location is a designated 'main' river under the jurisdiction of the Environment Agency (EA). It also forms part of the waterbody known as 'Great Stour between Ashford and Wye' for Water Framework Directive purposes. The river is currently (2010) categorised as having 'Poor' ecological status.

2.2 Physical information

Geology

- 2.2.1 Below the superficial alluvial deposits the site overlays Head Brickearth and River Terrace Gravels. The solid geology below this is within the Lower Greensand Group, here characterised by sandstone within the Folkestone Formation.

Hydrology

- 2.2.2 The Lower Greensand is classified as a Principal Aquifer. The depth to groundwater within the site has been measured to range from 0.90 to 4.87 metres below top of casing. Shallow groundwater is inferred, from site readings, to flow towards the River Great Stour on the eastern boundary. Deeper aquifer flow is expected to be north-easterly in direction, according to published regional hydrogeology maps.

Summary biological information

- 2.2.3 The site supports a range of terrestrial and wetland habitats reflecting various stages of succession following the disturbance associated with minerals operations (see Figure 2 for the 2012 habitat map). Its main interest, in ecological terms, lies in the juxtaposition of habitats that are developing an incipient interest with maturity, together with those that represent transitional opportunities for a range of fauna and flora. A summary of the key or more notable habitats within each compartment are provided under section 4.

3 OBLIGATIONS AND LEGAL CONSTRAINTS

3.1 Overview

- 3.1.1 Below is a brief outline of the main legal constraints and other obligations that may need to be taken into account when implementing the management aims set out under section 4. It should not be regarded as comprehensive.

3.2 Standard obligations

Health and Safety

- 3.2.1 Under the Occupiers Liability Act all landowners are obliged to hold public liability insurance. In addition all work undertaken on the site by contractors, volunteers or direct employees must comply with appropriate legislation relating to health and safety and the control of hazardous substances. Any nature conservation management in areas likely to be used by the public must take account of health and safety requirements and not prejudice health and safety.

Legal

- 3.2.2 Although the river itself is located outside of the boundary of the application site, the River Great Stour is a designated a 'main' river under the jurisdiction of the EA. The EA's consent is required for any works in, over, under or on the banks of the river up to a distance of eight metres from the top of bank.
- 3.2.3 In addition the application site is located adjacent to the Ashford to Canterbury railway and works that have the potential to affect this require consent from Network Rail. There is also a Public Right of Way that links Sheerpoint Corner, Kennington to the west of the site and Great Bromley Farm to the east. It enters the site just north of lake L1 where it crosses the field, before turning south to follow along the western bank of the river before exiting the site at Chapel Bridge.

3.3 Nature conservation obligations

Legislative protection

- 3.3.1 The provisions of the Conservation of Habitats and Species Regulations 2010 (as amended), the Protection of Badgers Act 1992 and the Wildlife and Countryside Act 1981 (as amended) apply to any works which may affect bats, badgers, reptiles, otter, great crested newts or nesting birds all of which have been recorded on the site. Where licensing is required, Natural England is the issuing authority.

Legislative and policy obligations

- 3.3.2 The presence of species and habitats identified on national and local Biodiversity Action Plans (BAP) and/or that are identified as Habitats or Species of Principal Importance (HPI/SPI) confers an obligation to ensure that works proposed under this management strategy (and any future management plans) further their conservation. Public authorities are also required under Section 40 of the Natural Environment and Rural Communities Act 2006 (as amended) to have regard for the conservation of biodiversity in exercising their functions, including the management of land within either ownership.
- 3.3.3 The whole of the River Great Stour along the site's eastern boundary together with the lake and surrounding woodland located centrally within the site are designated a non-statutory Local Wildlife Site and are therefore subject to policy protection.

4 MANAGEMENT COMPARTMENTS AND AIMS

4.1 Introduction

- 4.1.1 This management strategy had been produced in order to guide the future management of the site and in particular the preparation of detailed management plans (if necessary secured by way of suitably worded condition) and prescriptions for the site post-development. In this regard it assumes that the mitigation and enhancement work proposed as part of the development has been successful and does not therefore address possible remediation tasks that may arise during the commissioning phase.
- 4.1.2 It will be important to ensure that any future management plans that are produced based on this strategy are reviewed periodically so that they remain up-to-date and continue to serve the function required.
- 4.1.3 In order to facilitate the development of future detailed management tasks, the whole site has been divided into five compartments, to which this strategy then sets overarching management aims. These compartments should not, however, be seen as having defined boundaries. Where necessary future management plans and prescriptions should always look to cross between compartments so that opportunities for ecological enhancement in all areas of the site are exploited and the whole site serves to further a collective multi-functionality.
- 4.1.4 The extent of each compartment is shown on Figure 3 and are as follows;
- Compartment 1 - Northern field, lake and wet woodland
 - Compartment 2 - Residential area
 - Compartment 3 - Lake and wet woodland within LWS
 - Compartment 4 - Southern grasslands and lake edges
 - Compartment 5 - Recreational lakes and activities centre
- 4.1.5 The habitats and key features of each compartment is described below together with the functions each compartment is to serve post-development, key positive and negative features of each and likely future management aims and tasks.

4.2 General points and tasks

- 4.2.1 As part of a scheme to restore and enhance the ecological status of the whole of the River Great Stour in accordance with the Water Framework Directive, it is understood that the EA have secured funding and are currently developing a scheme for the enhancement of the River where it passes along the eastern side of this site. This will be achieved through re-profiling of the river banks and bed to create a more diverse range of habitats within the channel. Once these enhancements are complete the scope for synergy between the implementation of the detailed management plan for the Country Park (principally compartments 1, 3 and 4) and the future management of the river should be explored to maximise the river's wildlife and educational value.
- 4.2.2 Any active management (i.e. non-grazing operations such as mowing or cutting back of vegetation) should be timed to take place outside the bird nesting season i.e. February to August inclusive. Works during this period should only be carried out if a survey has been undertaken which confirms that no active bird's nests are present within the area affected.

- 4.2.3 Any method proposed to control invasive or undesirable species (both terrestrial and aquatic) should avoid the use of chemicals or artificial processes wherever possible.
- 4.2.4 As a general principal any dogs taken onto the site are to remain on a lead at all times, unless within an area clearly demarcated for free exercise, as may be agreed once the site is operational.

4.3 Compartment 1 - Northern field, lake and wet woodland

Summary description

- 4.3.1 The greater part of this compartment is species-poor, semi-improved grassland, much of it on backfilled land that has been used primarily for sheep grazing pre-development which has maintained a low sward and limited its diversity.
- 4.3.2 The lake L1 within this compartment is understood to have been created as part of the original quarrying works but has more recently been used to breed specimen coarse fish to restock the larger southern angling lakes by Mid Kent Fisheries. Along the northern edge of the lake is a wide belt of emergent vegetation that includes species water mint, gipsywort, great willowherb, bittersweet, soft rush, hard rush, water plantain, false fox sedge, wild angelica, ragged robin, water figwort, fool's watercress, hemlock water dropwort, common fleabane and ribbed melilot. To the north of the lake is an area of wet woodland characterised by alder, goat and grey willows, together with hawthorn, aspen, spindle and guelder rose.
- 4.3.3 The compartment also includes a number of mature trees, such as the line of balsam poplar trees adjacent to the river and small number of self sown trees contiguous with the railway line to the west of the lake that includes oak, sweet chestnut and ash.
- 4.3.4 Lastly, this compartment also includes two ponds, constructed as part of the mitigation strategy for great crested newts.

Functions

- Primary function - Nature conservation, including newt mitigation
- Secondary function - Informal recreation, including angling
- Tertiary function - Flood storage, mitigation and attenuation
- Quaternary function - Education

Key positive features

- This compartment is the focus of the great crested newt population within the site
- Large area of emergent vegetation and wet woodland associated with the lake
- Largest individual block of grassland available for nature conservation
- Two ponds designed and created for wildlife rather than fish, including but not limited to great crested newts

Key negative features

- Grasslands have limited flora diversity following restoration and intensive management

- Large carp population in lake L1 which is likely to be detrimental to invertebrate and amphibian populations
- Will experience a high degree of recreational pressure from the adjacent residential area

Management aims

- Encourage the natural regeneration and development of the grassland by relaxing the current grazing regime and implementing traditional hay meadow management either by grazing or mowing
- Allow the grassland to develop an outgrown and tussocky character to enhance its suitability for reptiles
- Encourage the development of the emergent vegetation through rotational cutting
- Manage with a view to eradicating non-native species such as Himalayan balsam and goat's rue
- Minimal management of newt ponds due to the likely presence of protected great crested newts, although ponds to be reviewed annually to ensure they continue to serve their function

4.4 Compartment 2 - Residential area

Summary description

- 4.4.1 This compartment encompasses the non-built elements of landscaping and green infrastructure within the residential zone, which includes various SuDS features, areas of long grass and flower rich grassland.

Functions

- Primary function - Attractive setting for built development, including amenity open space
- Secondary function - Surface water management using SuDS
- Tertiary function - Education and nature conservation

Key positive features

- Availability and accessibility of surrounding residents provides opportunities for public education and involvement in management of green infrastructure
- Provides opportunities for integrated ecological enhancement within the built environment

Key negative features

- Recreational pressure will be high in any open space areas
- Any conservation objectives need to be compatible with primary and secondary functions

Management aims

- Consider replicating traditional hay meadow management of flower rich grassland through late summer mowing with arisings removed
- Cut hedgerows on alternative sides on a two year rotation (subject to health and safety considerations) to allow the trees to flower and fruit every year.

- Ensure maintenance of SuDS systems, whilst also exploiting opportunities for habitat enhancement
- Investigate options for local resident workgroups to manage green infrastructure e.g. as a green gym

4.5 Compartment 3 - Lake and wet woodland within LWS

Summary description

- 4.5.1 This compartment includes the River Great Stour LWS where it extends into the site boundary to encompass lakes L2 and L3 and its surrounding woodland and areas of long grass adjacent to the river. Floristically the habitats are of limited intrinsic ecological interest although the ground flora of the woodland contains species such as enchanter's nightshade, wood dock, creeping buttercup, hawkweed ox-tongue, hoary ragwort and creeping cinquefoil, and in damper areas water mint, cyperus sedge, field and marsh horsetail, water figwort, square-stalked St John's-wort, gypsywort and false fox sedge. Patches of common spotted orchid are also a feature of the woodland within this compartment.
- 4.5.2 Much of the ecological interest of this compartment is contained within its invertebrate assemblage. Whilst this is not due to the presence of either a specific notable species or the collective assemblage of one particular habitat type the overall mosaic of habitats supports an invertebrate community worthy of note.

Functions

- Primary function - Nature conservation
- Secondary function - Informal recreation and quiet contemplation
- Tertiary function - Education

Key positive features

- Presence and juxtaposition of key habitat types for invertebrates
- Area of tipped and levelled sandy ground has notable floral and invertebrate communities
- Relatively large extent of continuous reedbed and wet woodland
- Woodland ground flora has some floristic interest
- Large area of open water for waterfowl with associated marginal habitats
- Compartment has a high level of bat activity
- The grassland supports all three reptile species recorded on the site

Key negative features

- Relatively uniform age structure within woodland and lack of mature and over-mature trees
- Woodland ground flora is being limited by closed canopy above
- Large carp population within the lake is likely to be detrimental to invertebrate and amphibian populations
- Intensive management limits the overall floral diversity of the grasslands

Management aims

- Open up and improve age structure of woodland through rotational cutting of trees
- Identify and retain trees suitable for future role as mature standards within woodland
- Consider increasing standing dead wood component of woodland through selective girdling ('ring barking') of trees
- Consider implementing rotational cut of reedbed
- Maintain and possibly increase open ground habitats for invertebrates through cutting back of scrub
- Consider agitating/harrowing the surface of the sandy soils to limit vegetation development
- Manage with a view to eradicating non-native species such as Himalayan balsam and goat's rue
- Encourage the natural regeneration and development of the grassland by relaxing the current grazing regime and implementing traditional hay meadow management either by grazing or mowing
- Ensure fencing and vegetated swale are functioning as barrier to access into the LWS along the boundary with the residential area
- Consider removal or culling of fish population
- Maintain outgrown and tussocky character of grassland for reptiles and consider adding log piles using wood generated from woodland management

4.6 Compartment 4 - Southern grasslands and lake edges

Summary description

- 4.6.1 This compartment comprises a belt of species-poor grassland to the east and south of the two largest lakes on the site, L5 and L6 as well as the margins of the lakes themselves. As with all the grasslands on the site, intensive grazing and mowing limits their floral diversity, with the relatively recent cessation of gravel extraction giving little time for the marginal vegetation to establish around the lake edges.

Functions

- Primary function - Nature conservation
- Secondary function - Informal recreation including fishing
- Tertiary function - Education

Key positive features

- The lakes provide a large area for bat foraging, in particular by *Myotis* species.
- Two otter spraints have been identified on the river bank at the southern end of this compartment
- Wader scrapes have been created at the southern end of lake L6
- The grassland supports all three reptile species recorded on the site
- Large area of emergent vegetation adjacent to the island and causeway

Key negative features

- Intensive management limits the overall floral diversity of the grasslands
- The habitats and fauna within this compartment will need to tolerate a high level of disturbance due to proximity to the activities hub
- Limited marginal vegetation along the lake edges
- Potential for a conflict between nature conservation objectives and management of lakes as a specimen fishery

Management aims

- Manage with a view to eradicating non-native species such as Himalayan balsam and goat's rue
- Encourage the natural regeneration and development of the grassland by relaxing the current grazing regime and implementing traditional hay meadow management either by grazing or mowing
- Manage vegetation in scrapes in late summer, after the nesting season, to maintain appropriate sward structure for nesting and feeding waders
- Maintain and possibly increase open ground habitats for invertebrates
- Possibility of rotational cutting of emergent vegetation could be explored to maintain structure and improved diversity over the long-term

4.7 Compartment 5 - Recreational lakes and activities area

Summary description

- 4.7.1 The two large, although interconnected lakes that were the most recent to have been quarried at the site form the principal lakes for formal recreation and activity within the Country Park, including non-motorised water sports, swimming / triathlon and angling. Adjacent to the west of the lakes is the main activities hub, which provides parking, outdoor play facilities, food outlets and storage for boats and equipment. Although this area is likely to receive the highest level of recreational pressure on the site, this compartment includes areas of habitat creation and enhancement as part of the development.

Functions

- Primary function - Formal recreation and play, including angling
- Secondary function - Education
- Tertiary function - Nature conservation

Key positive features

- The lakes are the largest areas of open water within the site
- Provides opportunities for integrated ecological enhancement within formal setting around the activities hub

Key negative features

- The lakes remain relatively 'raw' following recent cessation of quarrying activities
- Limited amount of marginal vegetation
- Recreational pressure will be high in any open space areas
- Any conservation objectives need to be compatible with primary and secondary functions

Management aims and tasks

- Manage with a view to eradicating non-native species such as Himalayan balsam and goat's rue
- Cut hedgerows on alternative sides on a two year rotation (subject to health and safety considerations) to allow the trees to flower and fruit every year
- Maintain strip of coarse grassland adjacent to the hedgerows and other features where possible for reptiles and invertebrates
- Maintain areas for invertebrates and reptiles e.g. log piles and exposed mud banks, to provide opportunities for children's education and discovery



Key

- Study area
- Hedgerow
- Woodland
- Mature non-woodland tree
- Scrub
- Open water
- Wet/damp ditch
- Marginal vegetation/swamp
- Species-poor, succession grassland
- Rank grassland/tall ruderal
- Amenity grassland
- Open ground vegetation
- Ornamental
- Bare ground/artificial surface
- Buildings
- Fence
- Target note, with text reference



DO NOT SCALE

Habitat map

Project: Conningbrook Lakes Client: Brett Group

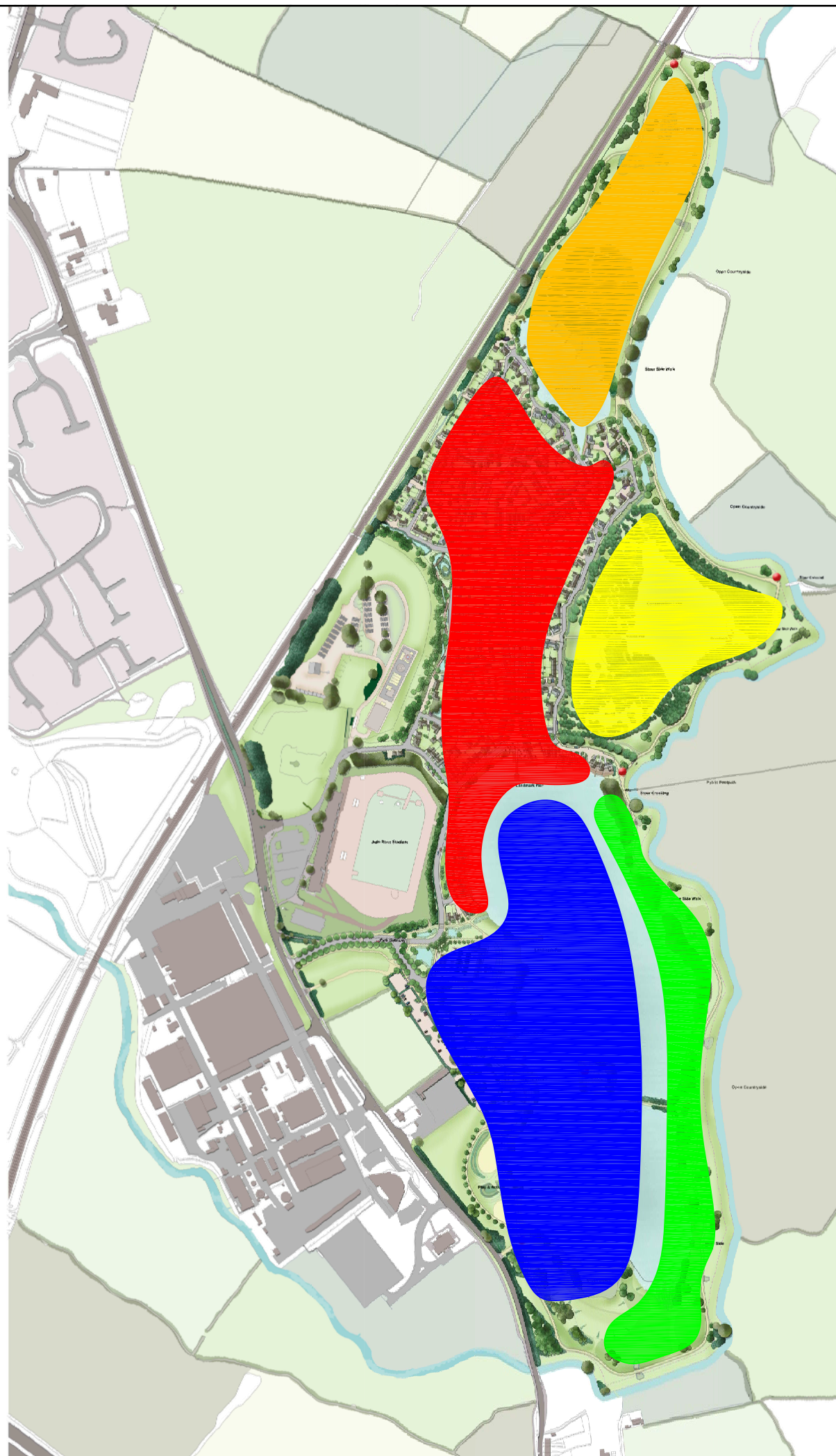
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Key

-  Compartment 1 - Northern field, lake and wet woodland
-  Compartment 2 - Residential area
-  Compartment 3 - Lake and wet woodland within LWS
-  Compartment 4 - Southern grasslands and lake edges
-  Compartment 5 - Recreational lakes and activities centre



DO NOT SCALE

Title

Management Compartments

Project

Conningbrook Lakes

Client

Brett Group

Drawing No.

Figure 2

Revision

B

Project No.

E1353

Drawn

KP

Checked

SW

Date

October 2012

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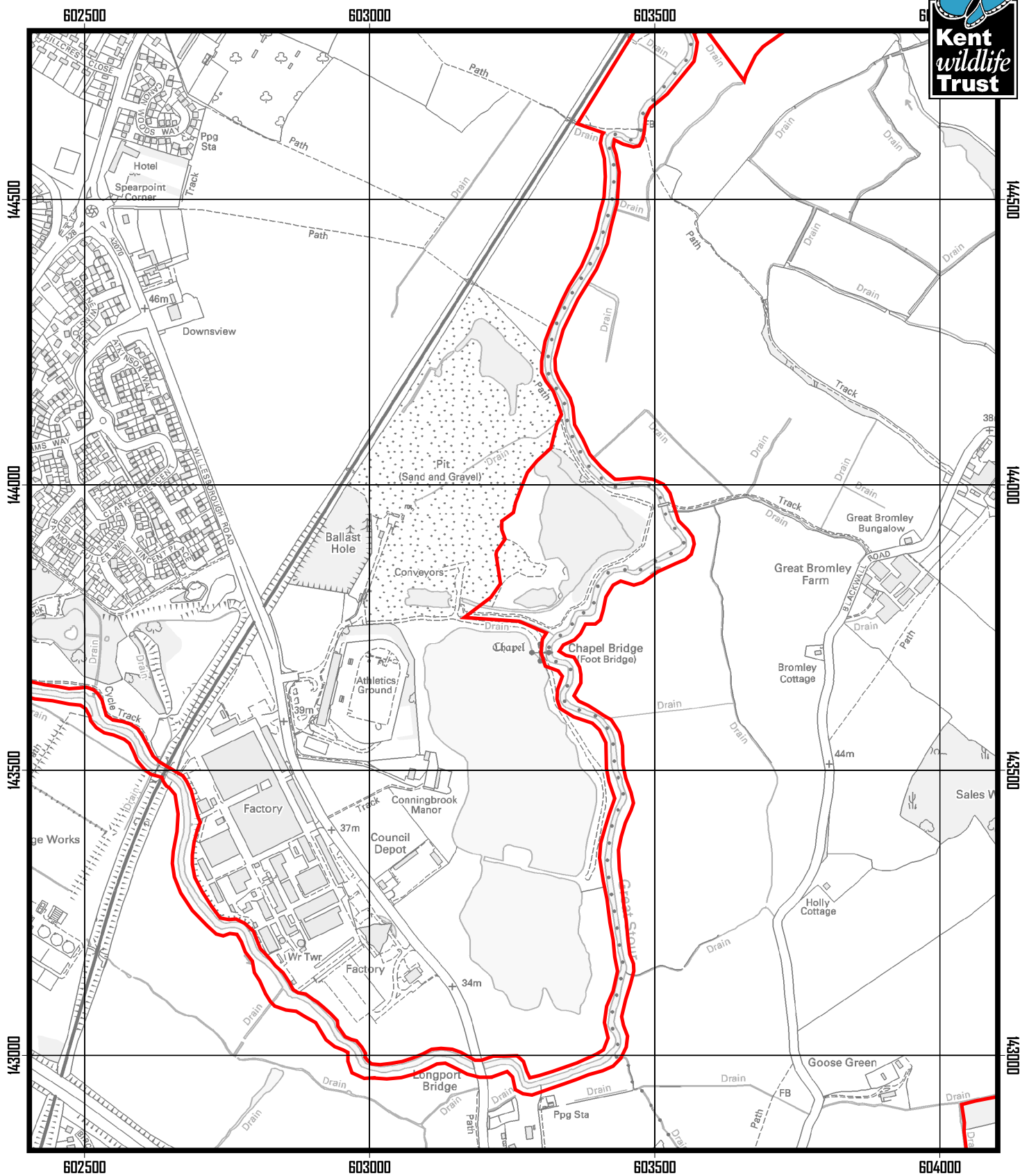
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Appendix 1

AS27 River Great Stour near Ashford



**Kent
wildlife
Trust**



0 100 200 300 400 500 Meters



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LWS Current



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