

Farnham Quarry

Site Biodiversity Action Plan



Prepared: 2006

Updated: 2009, 2012 and 2013

Site Information - Farnham Quarry

Site Name and Location (incl. Grid Ref.)	Runfold Farm, Farnham , Surrey Central Grid Reference SU 872485 (nb. closer to Aldershot than Farnham itself)
Hanson Company	Hanson Aggregates
BAP(s) that will be targeted	National BAP Surrey BAP
Habitat(s) to be developed	Wetland (including river and streams, fen, marsh, swamp and linear reedbed) Lowland unimproved neutral grassland / Floodplain grazing marsh Standing open water and reedbeds Lowland mixed Broadleaved Woodland Wet Woodland
BAP species to be encouraged	Otter Bats (esp. Daubenton's) Wintering wildfowl spp. esp. Common snipe, Breeding birds eg. Little ringed plover, skylark, reed bunting Dragonflies/damselflies (Odonata)
Designated Natural Area	The majority of the site falls within the London Basin (66), while the southern edges of the site and the corridor of the A31 falls within the North Downs (69)
Background and site description	<p>The 55ha sand and gravel pit was operational between 1998 and 2010 with majority of site restored in 2011. Final restoration of the plant site area is due to take place in 2014.</p> <p>The site can be divided into 7 compartments (See Fig. 1):</p> <p>Compartment 1: is formed by the corridor of the River Blackwater along with an area of broadleaved plantation and natural copse providing a landscape buffer between the residential areas to the north and the former mineral workings to the south. Within the north western part of the compartment, the river was realigned by the Environment Agency in 2006 to create a more natural meandering channel to aid flood flows and improve biodiversity, and remaining length was completed in December 2013. This wooded / riparian corridor is also served by a network of permissive footpaths, providing connectivity with the 'Blackwater Valley Path' and a valuable recreational resource for local residents.</p> <p>Compartment 2a: comprises an area of former silt lagoons which has mostly regenerated with a mix of willow scrub, rough grassland and marginal wetland habitat. The lagoon bund walls of the two south eastern lagoons have been partially breached to provide connectivity with the main lake in winter high water conditions</p> <p>Compartment 2b: is a partly in-filled former lagoon which has been re-profiled to create ephemeral ponds and scrapes to benefit newts and other amphibians.</p> <p>Compartment 3: is an extensive area of wet grassland which has been restored in a series of phases since 2003. Some of the lower lying areas remain permanently damp and are subject to periodic flooding. The area includes</p>

	<p>proposed linear plantations along the western and southern boundaries.</p> <p>Compartment 4: is a lower lying area within the former quarry void which for most of the year forms a permanent area of standing open water. Lake margin areas and a series of spits and islands which are subject to seasonal or periodic flooding, mostly comprise bare gravel and overburden substrates.</p> <p>Compartment 5: comprises the former plant site and stockyard area. The proposed restoration scheme will create a mix of wet meadow grassland and woodland plantations with smaller habitat features such as a proposed bat tunnel utilising former processing plant structures. This compartment also includes remnant hedgerows/ trees along the boundary with Compartments 2/ 4</p>
National Designations (SSSI, SAC, SPA etc) within 500m	none
Resource Requirements-comment on cost if appropriate	Site Restoration fund accrued during the operational life of the site is expected to be sufficient to fund remaining restoration earthworks and 20-year extended Aftercare management programme
Contribution to biodiversity	Site has already made a significant contribution to the wetland biodiversity of the Blackwater valley and is already recognised as one of the area's finest sites for birdwatching. The restored land is already designated as SNCI and will continue to develop as a significant local resource especially given its proximity to high local population
Partners and Local initiatives	Blackwater Valley Countryside Partnership, see website http://www.blackwater-valley.org.uk Site management committee comprises partnership between Hanson, Surrey CC, BVCP and local birdwatching group. Environment Agency re river re-alignment scheme RSPB Nature After Minerals use site as case study for wet meadow restoration
Other documents supporting the site BAP	Final Restoration Proposals plan F49r/77b (revised restoration and landscaping scheme) 20-year (S106) Aftercare and Management Scheme Plan F49r/82 (BAP and Management Scheme)

Site Layout



Action Plan

Item No.	Objective	Biodiversity Feature	Targets	Tasks	Assessing Indicator	Responsible Person	Timescale (Completion)
1	Habitat creation through completion of restoration of former plant site (AMS Cpt 5)	Wet woodland Species-rich rough wet grassland Bat roost	Create approx.. 2.5 ha of unimproved grassland and 2.5 ha of native broadleaved woodland. Design and create bat roost utilising existing concrete tunnel structure.	1. Implement revised restoration scheme as outlined on drawing ref. F49m/77b. 2. Enhance recovery tunnel with appropriate protective mesh and fixtures for bats	Area of grassland and native woodland created. Successful use of bat roost.	Ops Manager BVCP	Earthworks to be completed by end of 2014. Grassland and woodland planting completed by Q2 2015
2	Prepare and agree 20 Year Aftercare and Management Scheme.	A wide range of habitats and associated species (see items 3 – 8 below).	To put in place a 20 year Aftercare and Management Scheme	1. Prepare and agree Management Scheme as required by S106 Agreement	Approved scheme in place	Lands and Planning Manager	Annual Aftercare reporting for 5 years then triennially for remainder of 20 year period
3	Manage existing restored grassland (Cpt 3)	Lowland unimproved neutral grassland / floodplain grazing marsh with associated bird and invertebrate species.	Create and manage species-rich mesotrophic grassland communities which are broadly comparable with MG5 and MG8 classification within 10 years of commencement of management regime.	1. Secure grazing tenancy and let FBT 2. Maintain grassland by appropriate combination of seasonal grazing/hay cutting 3. Monitor in accordance with 20-year Aftercare & Management Scheme (AMS) 4. Repeat green hay strewing or wildflower over-seeding if necessary	Successful cattle grazing in place Records of breeding birds such as skylark, lapwing, snipe and redshank Periodic botanical monitoring of grassland	Lands and Planning Manager Landscape Manager Local birdwatching group Consultant ecologist	Tenant sourced and FBT let in 2013. Cattle grazing to be in place before end of 2014 growing season Ongoing annual bird records/counts 5-yearly survey of vegetation

4	Mosaic of wetland and terrestrial habitats on former silt lagoons (cpt 2a).	Reed swamp Ponds and ephemeral water bodies Scrub Wet woodland / mixed native broadleaved woodland, Rough grassland and tall ruderal vegetation Bare mineral faces for invertebrates.	To establish and manage a mosaic of wetland and terrestrial successional habitats within cpt 2a to support varied associated fauna: water fowl, woodland birds, amphibians, reptiles and invertebrates.	1. Maintain Phragmites reedbed by clearance of excess willow scrub 2. Cut back south-facing invertebrate banks and maintain open sunny conditions 3. Establish scrub/woodland along northern edges as per plan 77b and AMS	Area of willow cleared/number of volunteer-days Presence of open banks and invert monitoring records Area of trees and shrubs planted	BVCP volunteers Landscape Manager	Annual management tasks for BVCP Excavator clearance of invert faces by Q3 2014 Planting completed by Q2 2015
5	Create pond complex for amphibians within Cpt 2b	Ponds and scrapes Rough grassland Amphibians (incl. G-C newt) Reptiles Odonata	Establish and maintain a mosaic of ponds and terrestrial habitat to promote the colonisation by newts (possibly Great Crested Newts in the long term) and other fauna	1. Complete earthworks to form pond complex of varied water bodies. 2. Establish surrounding grassland/scrub/woodland 3. Monitor for use by amphibians, reptiles and invertebrates	No. of ponds created Area of grassland seeded and area of scrub/woodland planted Presence of target species	Landscape Manager Local expert volunteers	Pond complex formed in Sept 2013 earthworks Vegetation establishment as per AMS and planting by Q2 2015
6	River Blackwater & riparian corridor (Cpt 1).	Rivers & streams water vole otter riparian invertebrates	Create realigned river channel (in partnership with the EA), with suitable in-river features and vegetation	1. Re-align main river onto new naturalised river channel 2. Plant up with locally collected aquatic/riparian vegetation, and create in-river features	New river channel in place No. of volunteer-days	EA Wild Trout Trust BVCP	New channel created Dec 2013 and in-river structures and vegetation planted March 2014
7	Enhance quality and biodiversity	Standing open water, reed swamp, ephemeral/short	Create and maintain mosaic of marginal and ephemeral habitats.	1. Prevent excessive scrub encroachment by periodic cutting/spraying/hand-pulling	Willow scrub < 20% of lake margin	Landscape Manager	Ongoing, throughout 20 year AMS

	value of existing lake, islands and margins (Cpt 4).	perennial vegetation/ bare ground mosaic and associated fauna, including waders/ wetland bird species,	Maintain and enhance habitats for wading birds and other wetland species,	2. Maintain bare ground for breeding LRPs by patch-spraying with herbicide 3. Monitor bird populations	Monitoring records of numbers and species wetland birds,	Local birdwatchers	period
8	Maintain and enhance habitat value of existing broadleaved woodland and plantations (Cpts 1, 3 &5)	Native broadleaved woodland and associated woodland birds, bats and invertebrates.	Implement outstanding tree planting as per approved restoration scheme. Manage existing plantations/woodland to improve structural diversity to promote bats, woodland birds and invertebrates. Consider introduction of appropriate woodland ground flora	1. Plant up remaining perimeter buffer/ habitat linkage strips and plant site blocks 2. Thin existing screen plantations to favour long-lived final crop canopy species and develop understorey 3. Coppice and enrich gappy areas of semi-natural woodland between plant site and river	Area of woodland planted Area of woodland thinned No. of glades coppiced and interplanted.	Operations Manager Landscape manager BVCP volunteers	Planting to be completed by Q2 2015 Felling Licence by end Q2 2015 and thinning commenced by Q2 2016 Copse management underway by Q2 2016
9	Community involvement	Various	Increase knowledge of the existing ecology of the site Educational visits Bird Hide installation and erection of interpretation boards	1. Collect records from all available local sources and users of site, or external consultants if necessary 2. Make site available for educational visits 3. Install bird hide and erect interpretation board/s in suitable locations, explaining	Monitoring data provided and submitted to SCC with annual Aftercare reports No. of school and community visits Bird Hide and panels in place	Lands and Planning Manager BVCP Operations Manager, BVCP	2013 species monitoring report completed Ongoing through 20 year AMS period. Bird Hide installed by Q4 2016

			Volunteer work parties	<p>the history of the operation, the restoration process/aims and the nature conservation value of the site.</p> <p>4. Establish regular programme of volunteer work parties and publish locally</p>	Annual work party programme and reports	BVCP	BVCP and birdwatcher work parties underway winter 2013/14