

## Scope of on-going ecological survey work since 2005

<b>Species</b>	<b>Survey Dates</b>	<b>Methodologies</b>	<b>Guidance Followed</b>	
<i>Bats</i>	2005	7 dates June to September	Detector transects - site divided into five transect routes (each walked at least on two occasions)	Bat Conservation Trust 2007 <i>Bat Surveys Good Practice Guidance</i> .  Natural England 2004 <i>Bat Mitigation Guidelines</i>
	2006	4 dates May to August	As per 2005	
	2008	3 visits per month April to August	Detector transects, emergence counts, capture and radio tracking on site.	
		11 visits September to early Oct	Capture of bats at 6 woodlands within 3km of the site potentially suitable to Bechstein's bats.	
		4 day's survey January to February	Proposed inspections of known tree roost sites for hibernating bats	
2009	3 visits per month April to early July	Proposed further detector transects, emergence counts, capture and radio tracking on site and in woodlands within surrounding 3km.		
<i>Great Crested Newt</i>	2005	Mid April to Early June	All ponds on / immediately adjacent to the site	Natural England 2001 <i>Great Crested Newt Mitigation Guidelines</i>
	2006	Mid April to Early June  Note: Repeat survey spring season prior to construction	As above and all ponds within 500m Included egg searches/bottle traps and torch searches (x 4 dates) and netting	
<i>Reptiles</i>	2005	5 visits May to Oct	50 Refugia checked and incidental records when slow walkover and ad hoc records during other site visits	Gent, T. & Gibson, S. 2003 <i>The Herpetofauna Workers' Manual</i> . JNCC. Peterborough.
	2006	Ad hoc checks of refugia when on site,	1600 refugia placed across the site	
	2007	10 dates August to October		
	2008	September to October, 15 visits	Survey of Forestry Commission land north of proposed reservoir site using 20 survey transects/ refugia	

Species	Survey Dates		Methodologies	Guidance Followed
<i>Badger</i>	2005		Specific site walkover survey for signs/setts	
	2006		In 2006 to 2008 only incidental observations made	
		Note: Repeat survey proposed prior to construction		
<i>Dormouse</i>	2005	4 visits June to October	68 nest tubes and 98 nest boxes erected in June. 4 checks and nut searches in October	Natural England 2006 2 <sup>nd</sup> ed. <i>Dormouse Conservation Handbook</i>
	2006	May to October	3 nest box checks and nut searches on 4 dates between October and November	
	2007		200 tubes & 100 boxes erected to survey the Avenue and surrounding woodland (inc Hammonds Lands Copse)	
	2008	4 occasional visits June to October	Nest box/tube checks	
<i>Water Vole</i>	2005	Summer	Stream and ditch survey	Strachan, R. & Morhouse, T. 2006 2 <sup>nd</sup> ed. <i>Water Vole Conservation Handbook</i>
	2006	July	Stream and ditch survey	
<i>Vegetation</i>	2005 2006	May to Sept	Phase 1 Walkover DAFOR scale used Species linked to <b>each</b> vegetation block, quadrats in ditch and hedgerows in selected areas	JNCC 1990 <i>Handbook for Phase 1 Habitat Survey: a technique for environmental audit</i>  Rodwell, J. S. 2000 <i>British Plant Communities</i>
	2008	June and September	Note: Full walkover survey in 2008 excluded woodland	
	2009	April	Proposed National Vegetation Classification (NVC) surveys of ancient woodland communities on site and in immediate surrounding areas.	
<i>Invertebrates</i>	2005	Incidental recording in April, then 3 monthly visits June to August. April to August.	Visual search, hand net or pooter capture, sweeping vegetation, beating foliage and grubbing	
	2006	Note:	No survey as 2005 data considered adequate	
	2008	July and October	Survey of river invertebrates	

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<i>Rivers &amp; Streams</i>	2008 July	Baseline Geomorphology survey of streams on site and following pipeline route	Defra, 2003 <i>Guidebook for applied Fluvial Geomorphology</i>
	2008 July & October	River Habitat Survey of selected sections of streams on site and part of pipeline route	EA, 2003 <i>River Habitat Survey in Britain and Ireland: Field Survey Guidance Manual</i>
<i>Wintering Birds</i>	2005/06 6 visits November to March 2008/09 December to March Update survey comprising 3 monthly visits, rising to 5 if required (depending on activity).	Transects  Transects	Gilbert, G., Gibbon, D., Evans, J. 1998 <i>Bird Monitoring Methods; a manual of survey techniques for key UK species.</i>
<i>Breeding Birds (General)</i>	2005 4 visits May and June 2008 5 visits May to July	Walk over survey and noting any singing/displaying  Detailed survey breeding bird communities	Gilbert, G., Gibbon, D., Evans, J. 1998 <i>Bird Monitoring Methods; a manual of survey techniques for key UK species.</i>
<i>Nightjar</i>	2006 4 visits June and July 2008 4 visits June and July	Survey of site and surrounding areas.  Targeted survey of breeding birds in FC land to north and other observations	Gilbert, G., Gibbon, D., Evans, J. 1998 <i>Bird Monitoring Methods; a manual of survey techniques for key UK species.</i>
<i>Pipeline survey</i>	2007 1 visit February	Protected species phase 1 survey of northern section	JNCC 1990 <i>Handbook for Phase 1 Habitat Survey: a technique for environmental audit</i>
<i>Harbour Surveys Part of Appropriate Assessment for PW abstraction licence</i>	2005/06 Entec 2006/07 2007/08 Ecosa	Survey of freshwater creeks and control channels where no freshwater flow.  Low water targeted creek counts (x15) over 4 hour low tide cycle. Comparison made to flow in channels.	BTO WeBS methodology

HTWSR Ecological Surveys 2005 & 2006, May 2007 (ECOSA)

HTWSR Phase 1 Ecological Survey of adjacent woodlands (March 2007 Ecosa draft)

HTWSR Pipeline northern section, Phase 1 protected species survey (March 2007 Ecosa draft)

Summary of HTWSR reptile survey autumn 2007 (Dec 2007 Ecosa draft)

Summary of dormouse survey autumn 2007 (Dec 2007 Ecosa draft)

Summary of vegetation, bird and dormouse surveys 2007 (Dec 2007 Ecosa draft)

Summary of reptile survey (Dec 2007 Ecosa Draft)

Bat radio tracking report autumn 2008 (Jan 2009, Ecosa draft)

Wintering bird Survey (2005/06 and 2006/07) Langstone and Chichester Harbour, July 2007 (Entec UK Ltd)