



PART 6 REFERENCES

6. REFERENCE LIST

Broadmeadow Mark and Ray Duncan (June 2005) Climate change and British Woodland. Information Note 69. Forestry Commission

Centre of Ecology and Hydrology (CEH), (2005), National River Flow Archive, http://www.nerc-wallingford.ac.uk/ih/nrfa/index.htm

Centre for Ecology and Hydrology/Centre for Aquatic Plant Management (2004) Information Sheet 11:Australian Stonecrop, http://capm.org.uk

Centre for Ecology and Hydrology/Centre for Aquatic Plant Management (2004) Information Sheet 3: Himalayan Balsam, http://capm.org.uk

Centre for Ecology and Hydrology/Centre for Aquatic Plant Management (2004) *Information Sheet 5:Japanese Knotweed*, http://capm.org.uk

Clarke, M.J., (1988) Past and present mire communities of the New Forest and their conservation. PhD Thesis. University of Southampton.

Collingridge, Richard (2004), New Forest stream restoration:effects on grazing, Collingridge Ecological Consultants

Cooch Sean and Morris Dave (2000) Restoring the mires of the New Forest

Cooch S and Morris D. (2001) Case 24 Restoration of Denny bog Valley mire in the New Forest Hampshire, England (http://www.conservationevidence.com), extracted from Mending the Mires. Enact, English Nature (England), 9,3 p19-22

Countryside Commission (1984), The New Forest Commoners

Cox J. and Reeves R. (2000) A Review of the Loss of Commonable Grazing Land in the New Forest, Jonathan Cox Associates

Department for Environment, Food and Rural Affairs (June 2004) Mapping the Problem – Risks of Diffuse Water Pollution from Agriculture

Department for Environment, Food and Rural Affairs (2005) Controlling soil erosion – A manual for the assessment and management of agricultural land at risk of water erosion in lowland England, Defra

Draper, Colin (2003) Verderers' Countryside Stewardship Scheme Grazing Management Plan, Verderers of the New Forest

English Heritage (2004) Scheduled Monuments – A Guide for owners and occupiers

English Nature, Operations Likely to damage the special interest, The New Forest SSSI

English Nature (1987) SSSI Citation sheet - Hurst Castle and Lymington River Estuary SSSI

English Nature (1991) SSSI Citation sheet - North Solent SSSI

English Nature (1996) SSSI Citation sheet – New Forest SSSI

English Nature (September 2005) *Condition of SSSI Units* http://www.englishnature.gov.uk/special/sssi

Environment Agency (1998) New Forest Local Environment Action Plan (LEAP) Consultation Draft

Environment Agency (1999) New Forest Local Environment Action Plan (LEAP)

Environment Agency (2000) Local Environment Agency Plan – Hampshire Avon – Plan from April 2000 to March 2005

Environment Agency (2001) Fisheries Survey, New Forest

Environment Agency/Halcrow, (August 2002), Winter 2000/2001 Groundwater and Fluvial Flooding in Hampshire – Bartley, Cadnam, Copythorne, Ower and Winsor

Environment Agency/Halcrow, (August 2002), Winter 2000/2001 Groundwater and Fluvial Flooding in Hampshire – Brockenhurst

Environment Agency/Halcrow, (August 2002), Winter 2000/2001 Groundwater and Fluvial Flooding in Hampshire – Lymington and Pennington

Environment Agency, (July 2005), Hampshire Avon Catchment Abstraction Management Strategy

Environment Agency - Hannah Wright (December 2003) New Forest Life 3 Project Sustainable Wetland Restoration in the New Forest – Fisheries Survey Report

Environment Agency (November 2003) Life III Hydrometric Monitoring Sites: Technical Summary

Environment Agency (December 2003) New Forest Life III Project Hydrological Summary

Environment Agency (2003) Briefing Note – Artificial and Heavily Modified Water Bodies (AWBs & HMWBs) and the Water Framework Directive

Environment Agency (2004) Briefing Note - Forestry and the Water Framework Directive

Environment Agency (2004) Briefing Note – Ecology and the Water Framework Directive

Environment Agency (2004), Lymington Strategy

Environment Agency (May 2004) Sustainable Wetland Restoration in the New Forest – Environmental Statement

Environment Agency (February 2004) Sustainable Wetland Restoration in the New Forest – River Restoration Proposals

Environment Agency (2005) Brief Survey of input gravel site for bed level raising on the Highland Water in the New Forestry Commission

Environment Agency (2005) New Forest Catchment Flood Management Plan Inception Report

Environment Agency (2005) Water abstraction getting the balance right – How you can get involved in the New Forest Catchment Management Strategy (CAMS)

Environment Agency, (2005), Water for life and livelihoods – A strategy for River Basin Planning – a consultation

Environment Agency (2005) NetRegs – High Forest and Traditional Coppice – Building of Forest Roads and Paths, http://www.environment-agency.gov.uk/netregs/processes

Environmental Resources Management and Gifford & Partners, (2000), *The New Forest District Landscape Character Assessment*, HCC, Countryside Agency, English Heritage

European Directive 2000/60/EC of the European Parliament and the Council of 23 October 2000 Establishing a framework for Community action in the field of water policy http://europa.eu.int/smartapi/cgi

Forestry Commission, Department of Environment, Ministry of Agriculture, Fisheries and Food (1991) *Report on the Working Party on Grazing in The New Forest* (Commonly referred to as the Illingworth Report)

Forestry Commission, (1997) Review of Holly Cutting in the New Forest

Forestry Commission (1999) Environmental Impact Assessment For The Deforestation of Part of the New Forest

Forestry Commission (1999) Plan for the Ancient & Ornamental Woodlands of the New Forest

Forestry Commission (2001) Management Plan For the Crown Lands of the New Forest 2001-2006

Forestry Commission (2001) Access & Recreation Plan

Forestry Commission (2001) The New Forest Heath Management Plan

Forestry Commission (2001) Heathland Plan

Forestry Commission (2001) Archaeological Management Plan For The Crown Lands Of The New Forest

Forestry Commission (2001) Inclosure Management Plan

Forestry Commission (2003) Forests & Water Guidelines – Fourth Edition

Forestry Commission (March 2004) Visit by FE Ecologists

Forestry Commission (October 2004) Fence alignment proposals under Life 3: Fence Alignment Variance

Forestry Commission (October 2004) Habitat restoration proposals for Stony Moors mire and steam system

Forestry Commission (October 2004) Revised habitat restoration proposals for Holly Hatch Bottom following consultation

Forestry Commission and Environment Agency (October 2004) Management of Debris Dams in New Forest Water Courses – A Joint Policy Paper

Forestry Commission (August 2005) Stream Restoration Plan for Holmsley Inclosure

Forestry Commission (February 2005) Habitat Proposals For Allum Green

Forestry Commission (2005) New Forest Food and Mouth Disease Contingency Plan

Geodata Institute (2003) New Forest Geomorphological Audit Final Report - Report No. UCO610

Gregory K.J. (1992), 'Vegetation and River Channel Process Interactions' in *River Conservation and Management*, edited by P.J Boon, P Calow and G.E. Petts, John Wiley & Sons Ltd

Gregory K.J. and Davies R.J. (1991), Coarse Woody Debris in Stream Channels in Relation To River Channel Management in Woodland Areas, University of Southampton

Hampshire County Council, (2005) Sustainable Wetland Restoration in the New Forest – Interim report July 2002-February 2005, New Forest Life Partnership

Hampshire County Council (October 2005) Life 3 Project Management Report

Harrison, P.A., Berry P.M. and Dawson, T.P. (Eds.) (2001). Climate Change and Nature Conservation in Britain and Ireland: Modelling natural resource responses to climate change (the MONARCH project). UKCIP Technical Report, Oxford

Holmes, Nigel (2005), River & Floodplain Restoration of the Dockens Water @ Blashford Lakes – Dockens Audit Note – Feb 28th 2005

Holzer, Tim (2004) Timber Management Protocol in Respect of Environment Agency New Forest Life 3 Restoration Works, Environment Agency

Foundation for Water Research (2005) Information Note FWR-WFD02 – The Water Framework Directive – a summary

Foundation for Water Research (2005) Information Note FWR-WFD03 – The Water Framework Directive – what is it?

Goater R.D., Houghton D, Temple C., (November 2004) New Forest Breeding Waders Survey 2004, RSPB

Hulme, M et al, (2002) Climate Change Scenarios for the United Kingdom: The UKCIP02 Scientific Report, Tyndall Centre for Climate Change Research, School of Environmental Sciences, University of East Anglia

Institute of Geological Sciences Lymington Sheet 330 1:50 000 Series Bournemouth Sheet 329 Ringwood Sheet 314

James, Simon (?) A Report on the History and Management of the Broadleaved High Forest within the New Forest 1698-1995

Jarvis M.G., Allen R.H., Fordham S.J., Hazelden J., Moffat A.J. & Sturdy R.G. (1984) Soils and their Use in South East England, Harpenden 1984

Langford T.E. (1996), 'Ecological aspects of New Forest Streams draining on of Britains unique areas New Forest Streams', *Freshwater Forum Vol 6*

Melville R.V. and Freshney E.C., (1982) British Regional Geology – The Hampshire Basin and adjoining areas, Institute of Geological Sciences, HMSO

Meteorological Office, Climate Statistics – Met office averages + station data http://www.metoffice.com/climate/uk/stationdata

Mott, N (2005) Managing Woody Debris in Rivers and Streams, Staffordshire Wildlife Trust, UK

National Rivers Authority (1992) Hampshire Avon Catchment Management Consultation Report

Nature Conservancy Council (1983) The Food and Feeding Behaviour of Cattle and Ponies in the New Forest Hampshire

New Forest Committee, (2003), Strategy for the New Forest

New Forest District Council (2005) New Forest District Local Plan First Alteration Adopted August 2005

New Forest Life Partnership (2001) Securing Natura 2000 Objectives in the New Forest – Final Technical Report

New Forest National Park (Designation) Confirmation Order 2005

New Forest National Park Authority, The New Forest National Park -What it means for you

New Forest National Park Authority, *About the New Forest National Park*, http://www.newforestnpa.gov.uk

Nisbet T.R. (April 2005), Water Use by Trees - Information Note 065, Forestry Commission

Oakwood Environmental, (November 1992), A Flood Alleviation Strategy for Broadland – Washland Development Background Technical Papers

Old J, Hill C, Maas G & Sear D, July 2005, **Ober Water Geomorphological Dynamics Assessment**, Geodata Institute/School of Geography

Ordnance Survey (2004) OS Explorer Map OL22 New Forest, 1:25,000 scale map

Pasmore A.H. & Lavender (1973) A Survey of Scots Pine on the Open Waste of the New Forest, New Forest Commoners' Defence Association

Putman R.J., Pratt R.M., Ekins J.R. and Edwards P.J. (1987) 'Food and Feeding Behaviour of Cattle and Ponies in the New Forest, Hampshire', *Journal of Applied Ecology Vol. 24*, p369-380

Sanderson N.A. (October 2004) Fencing Proposals Under Life 3 Ecological Report (prepared for the Forestry Commission)

Scott Wilson Kirkpatrick/Environment Agency (May 1996) *Milford on Sea Flood Alleviation Strategy – Environmental Statement*

Seymour, William (?) The New Forest from Norman Times

Small D. (1978) New Forest – A Review of Treatment of Scots Pine Stands Made in 1977, New Forest Forestry Commission

Soil Survey of England & Wales, Soils of England and Wales Sheet 6 South East England Scale 1:250,000

Stagg, David (1992) Silvicultural Inclosure In the New Forest From 1850 To 1877, *Proceedings* of the Hampshire Field Club Archaeological Society 48, p 143-159

Stover, Stephen L. (1985) ,Silviculture and Grazing in the New Forest: Rival Land Uses Over Nine Centuries, *Journal of Forest History, January 1995*

Taviner L.E.,(1969),'The Geological Structure of the New Forest', in Edlin HE (Edited) New Forest Forestry Commission Guide p22-25, HMSO

Thomas, Michael (July 2003), A Study of Habitat Structure and Macroinvertebrate Communities of the Highland Water and Black Water, Environment Agency

Tubbs, Colin R, (2001), The New Forest, New Forest Ninth Centenary Trust

Tuckfield C.G. (1964), 'Gully Erosion in the New Forest, Hampshire', *American Journal of Science*, Vol. 262 (6) p795-807

Tuckfield C.G. (1976), A Geomprophological Appraisal of Some Recent Drainage Work Carried out in the New Forest By the Forestry Commission, Nature Conservancy Council

Tuckfield C.G. (1980) 'Stream Channel Stability and Forest Drainage in the New Forest, Hampshire', *Earth Surface Processes*, Vol 5, p317-329

Tuckfield C.G. (1980), 'Rejuvenation Features In the Cadnam River Basin in the New Forest', Proc. Hants. Field Club Archaeol. Soc., Vol 36, p5-13

Tuckfield, Cyril G (1986), 'A Study of Dells In the New Forest, Hampshire, England', *Earth Surface Processes, Vol.11* p23-40

University of Southampton (1996) *The Highland Water Catchment* - Highland Water Technical Note 1

Verderers of the New Forest, *The Verderers Court – Minutes*, http://www.verderers.org.uk/court.htm

Verderers of the New Forest, *Policies on Important New Forest Issues*, http://www.verderers.org.uk/policy.htm

Verderers of the New Forest, Memorandum of Understanding Between the Forestry Commissioners and the Verderers of the New Forest, http://www.verderers.org.uk/verd2k.htm

Verderers of the New Forest (July 2005) Verderers' Policies

Weymouth Simon and Cooch Sean (2000) A survey of the Physical and Ecological Status of the Valley Mires in the New Forest Special Area of Conservation (SAC), Forestry Commission Survey Report for the EU LIFE Project

Wheeldon J. (2003), *The River Avon cSAC Conservation Strategy*, English Nature, Peterborough

Wright, R.N. & Westerhoff, D.V., 2001, *New Forest SAC Management Plan*. Lyndhurst: English Nature

Wheeldon, J. (2003). *The River Avon cSAC Conservation Strategy*. English Nature, Peterborough

PART 7 GLOSSARY OF TECHNICAL TERMS

7. GLOSSARY OF TECHNICAL TERMS

Abstraction The removal of water from any source i.e. groundwater or river, either permanently or temporarily.

Adjacent Commons Privately owned common land which as brought within the Perambulation of the New Forest by the New Forest Act of 1964. Sometimes described as the "manorial" commons.

Agisters Officers in charge of animals taken in for grazing. The Agisters of the New Forest are employed by the Verderers mainly to supervise the commoners' animals.

Alluvial woodland/riverine woodland Woodland growing on the floodplain

Ancient and Ornamental Woodlands The natural woodland on the Crown land in the New Forest, which is of great antiquity.

Aquifer A water-bearing stratum situated below ground level.

Biodiversity The diversity of plant and animal life in a given area.

Catchment Abstraction management Strategies (CAMS) Strategies for the management of water resources at a local level. Catchment Abstraction Management Strategies make more information on water resources and licensing practice publicly available and allow the balance between the needs of abstractors, other water users and the aquatic environment to be considered in consultation with the local community and interested parties.

Catchment Flood Management Plans (CFMPs) Catchment Flood Management Plans are strategic planning tools through which the Environment Agency seeks to work with other key decision –makers within a river catchment to identify and agree policies for sustainable food risk management.

Commoners Those entitled to exercise various rights on common land.

Coppicing The regular (6 to 30 years) cutting at or near ground level of broadleaved trees to stimulate regrowth of young and vigorous shoots from the stump.

Cottid Fish with two dorsal fins

CROW Act The Countryside and Rights of Way Act 2000 (also known as CROW) will extend the public's ability to enjoy the countryside whilst also providing safeguards for landowners and occupiers. It will create a new statutory right of access to open country and registered common land, modernise the rights of way system, give greater protection to Sites of Special Scientific Interest (SSSIs), provide better management arrangements for Areas of Outstanding Natural Beauty (AONBs), and strengthen wildlife enforcement legislation.

Culvert Closed channel-carrying water under a road, canal etc.

Cumec A measure of flow equating to one metre cubed per second (1m3/s)

Deputy Surveyor The Forestry Commission's senior officer in the New Forest

Drifts The rounding up of animals on horseback and on foot

Ephemeral Seasonal or periodic

Evaporation The process where liquid water turns to vapour

Evapotranspiration The loss of water to the atmosphere as a result of the combination of evaporation and the transpiration of plants

Exotic species Non native species to the UK which has been introduced into the New Forest by man

Favourable condition (habitat) When a habitat's natural range and the areas it covers within that range are stable and increase, and the species structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future

Floodplain The low relief area of valley floor adjacent to a river that is periodically inundated by floodwater.

Fluvial Of, or occurring in, a river.

Forb A non-woody flowering plant that is not a grass.

Forest Laws The laws which governed medieval hunting forests.

Floodplain. Land adjacent to a river over which water flows in time of flood or would flow if the river had not been altered by human intervention

Heritage asset Any place with some heritage value including Scheduled Monuments, Listed Buildings, Registered Parks and Gardens and known areas of archaeology.

Humic Peaty

Hydraulic model (or computer modelling) A computer model built for a given river system, and used to simulate and predict flows, flow conditions (hydraulics), tide conditions and river responses to physical changes e.g. in precipitation and channel shape.

Inclosures Crown land in the New Forest from which the commoners' animals may be excluded under the New Forest Acts for the growing of trees. The word is an older form of "enclosure".

Indicative Fluvial Floodplain The area that is anticipated to be at risk of flooding from a fluvial water level with a 1% chance of occurring. This is based on hydraulic modelling and observed events, and is defined by the Environment Agency.

Infrastructure Relating to the transport network including roads, bridge and railway lines.

Invasive Species not usually found in the New Forest but which has colonised over the years and is spreading in distribution

Invertebrate Any animal that lacks a vertebral column, or backbone

Listed Building The Secretary of State for Culture, Media and Sport is required to compile lists of buildings of special architectural or historic interest; these are known more generally as 'listed buildings'. The definition of 'listed building' is fairly wide and the term 'building' may include a wide range of structures including bridges, milestones and follies. Generally, these buildings will have survived without too much alteration and be good examples of a certain period or type of architecture.

Macroinvertebrate The term macroinvertebrates is traditionally used to refer to aquatic invertebrates including insects (e.g. larval Ephemeroptera and Trichoptera), crustaceans (e.g. amphipods), molluscs (e.g. aquatic snails) and worms (e.g. Platyhelminthes), which inhabit a river channel, pond, lake, wetland or ocean. Historically, their abundance and diversity have been used as an indicator of ecosystem health and of local biodiversity. They are a key component of the food chain.

Macrophyte Larger plants, typically including flowering plants, mosses and larger algae but not including single-celled phytoplankton or diatoms

Main river The term 'main river' is a statutory designation shown on maps held by DEFRA. These indicate which rivers and estuaries are classified as 'main river' and which are not. The Environment Agency's powers vary depending on whether the river is 'main river' or 'ordinary watercourse'.

Mire An area of marshy or waterlogged ground

Nick-point Point on the long profile of a stream where the gradient is broken by a sudden drop in elevation. Nickpoints are the locations of rapids and waterfalls and migrate upstream in response to erosion.

Open Forest. Crown land in the New Forest over which common rights may be exercised.

Ordinary Watercourse A watercourse which is not classified as Main River

Oxidation Chemical reaction which happens when oxygen dissolved in water reacts with certain rock minerals, especially iron to form oxides and hydroxides. Often manifests as yellow or brown staining.

Pannage Season The time of year when acorns drop and when pigs may be turned-out to eat them.

Perambulation Formerly the boundary of the royal hunting forest. The current Perambulation was defined by the New Forest Act 1964. Common land within it (excluding Minstead Manor) is subject to the powers and duties of the Verderers.

Peak flow The highest discharge achieved during a flood event.

Pollarding The regular (6-30 years) cutting of broadleaved trees at a height above the reach of large herbivores to stimulate regrowth of young and vigorous shoots

Pest Non native species to the New Forest which is spreading rapidly and is difficult to eradication or control

Poaching Erosion or damage to the soil structure by livestock

Ramsar An area that has been designated a Wetland of International Importance as defined by the Ramsar Convention of 1971, designed to promote wetlands and foster their wise use.

River basin Sometimes known as a river catchment, a "river basin" is the area of land from which all surface run-off flows through a sequence of streams, rivers and, possibly, freshwater lochs into the sea at a single river mouth, estuary or delta

Runoff Water that flows over the surface of the land rather than infiltrating into the soil.

Scheduled Ancient Monument Archaeological remains scheduled under the Ancient Monuments and Archaeological Areas Act 1979 and afforded special protection.

Seepage step A zone in the hillside where water slows oozes out of the ground demarcated by a step or small scarp.

Site of Special Scientific Interest (SSSI) A site of national importance designated under the Wildlife and Countryside Act 1981.

SPA (pSPAs and cSPAs) Special Protection Area. Site designated under the Birds Directive (79/409/EEC) for the conservation of wild birds. Together with SACs, they form part of the Natura 2000 network of sites. All sites are SSSIs. Also includes possible and candidate SPAs.

Special Area of Conservation Site designated under the Habitats Directive (92/43/EEC) for the conservation of natural habitats and of wild fauna and flora. Together with SPAs will form the Natura 2000 network of sites. All sites are SSSIs. Also includes proposed and candidate SACs.

Sward Expanse of short grass

Syncline A structural downfold in the Earth's crust where the younger rocks occupy the centre and the older rocks may be exposed by erosion on the flanks.

Throughflow The movement of water through the soil as opposed to over the surface

Tributary A stream or river which feeds into a larger one.

Watershed An area of land that drains downslope to the lowest point. The water moves through a network of drainage pathways, both underground and on the surface. Generally, these pathways converge into streams and rivers, which become progressively larger as the water moves on downstream, eventually reaching an estuary and the sea.

Water table Top surface of the saturated zone within the aquifer.

Wetland An area of low-lying land where the water table is at or near the surface for most of the time, leading to characteristic habitats.

Verderers The statutory body which administers and protects the common rights in the New Forest and the amenity of the Forest.