

FOCUS

LOCAL ENVIRONMENTAL ISSUES IN AND AROUND MANSFIELD, WORKSOP,
EAST RETFORD, MALTBY, BAWTRY, EPWORTH AND THOME

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Good news for recreation

Issue 9

One less well-known aspect of the Agency's work is maximising the recreational benefits of river basins. This is part of integrated river-basin management, which seeks to balance the potentially conflicting demands of water quality, navigation, conservation and recreation.

The Agency incorporates recreational enhancements into flood defences and other works wherever possible. Valerie Holt is the Lower Trent Area Recreation and Conservation Team Leader. She explains: 'Improving the opportunities for recreational use of Agency owned sites, and other sites in partnership with their owners, allows greater public access to, and appreciation of, the natural wealth of this area. It is also an opportunity for other improvements to be made to a site to bring even wider benefits.' An example of this approach is the work that the Agency has undertaken in partnership with the Sherwood Forest Trust. Here, habitat improvements have been linked to increased public access alongside the Rivers Maun, Meden and

Ryton within the Trust's boundary.

Another example of the Agency's work benefiting recreation is the welding of steel bars across the bankside sheet piling at West Stockwith Pumping Station. This simple measure enables boats to tie up while waiting for the pumping station gates to allow them on to the River Idle.



People enjoy the outdoors in many parts of the LEAP area

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Foreword

Welcome to the first Local Environment Agency Plan (LEAP) Annual Review for the Idle and Torne catchment. This newsletter style will, we hope, introduce more people to the Agency and allow a greater sense of partnership in local environmental issues.

Partnerships will play an ever more important role in the years to come if we are to achieve sustained environmental improvement locally. I hope you will find this newsletter of interest. If you have any comments, or views, or you wish to become involved in addressing local environmental issues, we would be delighted to hear from you.

David Rooke
Lower Trent Area Manager
Environment Agency



Good news for recreation cont...

The Agency also negotiates the creation of new footpaths. The Agency has been in consultation with Doncaster Metropolitan Borough Council and North Lincolnshire Council regarding the creation of footpaths on the banks of the River Torne at Tunnel Pits, Auckley and Rossington. At Auckley, new fencing is to be erected to separate walkers from livestock for the protection of both groups.

For more information on this story, please contact: Valerie Holt in Conservation and Recreation, Environment Agency Nottingham office.



Boats are now able to tie up at West Stockwith gates

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...opportunity for other improvements to be made to a site to bring even wider benefits...

What is a LEAP?

A LEAP is a Local Environment Agency Plan. It is the Agency's integrated local management plan process which is used to identify, assess, prioritise and hopefully solve local environmental issues or problems. These issues are related to the Agency's functions but aim to take account of our local customers and may be tackled in

partnership with them. A programme of actions are designed to bring about environmental improvements to optimise benefits for the local environment and deliver sustainable environmental improvement.

Each LEAP is reviewed annually and progress is reported through the Local Environment Focus newsletters.



The Environment Agency - who are we?

The Environment Agency works to protect and enhance the natural environment. Formed in 1996, the Agency brought together the expertise of the National Rivers Authority, Her Majesty's Inspectorate of Pollution and the Waste Regulation Authorities and a number of smaller units from the Department of Environment. The Agency is required and guided by Government to help achieve the objective of sustainable development – '...development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. The Environment Agency publication, 'An Environmental Vision, the Environment Agency's Contribution to Sustainable Development' sets out how we aim to meet this challenge.

Our remit is very broad and encompasses pollution prevention and control, flood defence, waste management, fisheries, recreation, navigation, water quality, water resources and conservation. By adopting an integrated approach, we aim to deliver significant, long-term advances in every environmental arena.

For more information on the work and remit of the Environment Agency both nationally and locally, please contact the Customer Contact team at the Environment Agency Nottingham office.

About the Idle and Torne area

The Idle & Torne LEAP area covers around 1,300 square kilometres, including parts of Nottinghamshire, Derbyshire, South Yorkshire and North Lincolnshire. Sutton-in-Ashfield, Mansfield, Worksop, East Retford, Crowle, Hatfield and parts of the suburbs of Doncaster and Rotherham all fall within the LEAP area. The population is approximately 445,000.



Dirtiness pumping station, on the North Level Engine Drain

The landscape varies widely from the flat outlook of the Isle of Axholme and Hatfield Chase in the north to the wooded Dukeries and heavily urbanised headwaters around Mansfield and Doncaster. The landscape has been shaped over hundreds of years by the cumulative effects of human occupation and industry. This includes the effects of extensive mining and the system of pumped drainage which helps to support the high-grade agricultural land. This landscape is likely to change in the future if the predicted continuing decline in employment in agriculture, manufacturing and the coal industry takes place. However these declines could be counterbalanced by increasing employment in the service industries.

The Rivers Idle and Torne rise between Nottingham and Doncaster and flow north-easterly to join the River Trent at large land drainage pumping stations at West Stockwith and Keadby respectively.



Roche Abbey, nr Maltby

Both rivers flow through a mixture of open rural and dense urban areas. The headwaters of the five main tributaries (Maun, Meden, Poulter, Ryton and Oldcoates Dyke) are of good quality; however, effluent discharges in their upper sections affect river quality in the whole area. Also, minewater discharges continue to affect water quality despite the colliery closure programme. However, significant quality improvements have taken place in the River Idle and its tributaries within recent times and the Ryton and Torne rivers have now recovered sufficiently to support good coarse fisheries in their lower reaches.

The river systems in the area provide diverse recreational opportunities. There are a range of fisheries, with perch, tench and pike being locally important. Gravel pits are also fished, as well as used for sailing, board sailing, jet skiing and powerboating. There are footpaths along various tributaries and towpaths along the canals, the Chesterfield Canal and the Stainforth and Keadby Canal, which provide access to the countryside for walkers. The large Dukeries estates offer many attractions for visitors, as do Sherwood Forest and the Major Oak, Clumber Park, Rufford Park and the Greenwood Community Forest.



Isle of Axholme

The majority of land in the lower reaches of the Rivers Idle and Torne lies below high tide level in the River Trent, and has suffered local land drainage problems in the past. To maintain drainage in the area now, water is pumped from the low-lying drains to higher level carrier watercourses and then to the River Trent. Water is let back in the low-lying drains in dryer months to meet local agricultural abstraction needs. Water is also heavily abstracted from the Sherwood Sandstone aquifer, mainly for public water supply purposes. In large areas, abstraction has



exceeded recharge (water which percolates its way back into an aquifer to replenish levels). This has resulted in lowering of the water table causing depletion of flow in rivers and streams and consequent damage to wetlands. Reduction in groundwater levels is also a matter of concern to the archaeological status of the area.

The area supports a wide range of wildlife habitats. These include 48 Sites of Special Scientific Interest (SSSI's). In addition there are seven Local Nature Reserves and the Humberhead Peatlands National Nature Reserve. There are also two candidate Special Areas of Conservation at Thorne Moors and part of Sherwood Forest, Birklands and Bilhaugh. The cultural heritage is also rich and diverse, including 48 Scheduled Ancient Monuments and in excess of 600 other sites of archaeological interest in the area.



Mansfield market place

Protecting groundwater reserves

It is vitally important that the quality of groundwater reserves is preserved within the Idle and Torne area, both for public water supply and to sustain the rivers and their habitats and dependent wildlife. To this end, Agency officers are currently carrying out site inspections and promoting best practice within the Idle and Torne area.

The majority of this groundwater is taken from the Sherwood Sandstone aquifer. The porous nature of the sandstone enables the aquifer to hold vast amounts



Soil sampling is taken to check ground suitability in respect of disposal of pesticide residues for compliance with Groundwater directive

of good quality water. However, its porosity also means that it is at great risk from pollution which can disperse for many miles within the aquifer. Lower Trent Area Environment Protection Manager, Jeff Dolby, says, 'Groundwater pollution is difficult, costly and often impractical to put right, therefore prevention is vital.'

The Sherwood Sandstone aquifer has been designated a Nitrate Vulnerable Zone (NVZ) under the EC Nitrate Directive. This legislation aims to reduce nitrate pollution from agriculture by requiring greater control and recording of fertiliser use. An action plan for the Sherwood Sandstone NVZ has been developed by the Agency which specifies the quantity of nitrogenous fertiliser which can be applied, along with restrictions on application regimes, closed periods and record keeping.

Farm visits are being made by Agency officers to provide a partnership approach to ensuring compliance with the Action Plan through advice and co-operation. To date, 140 inspections have been carried out. An Agency publication, 'Tackling the problem of nitrate pollution through Nitrate Vulnerable Zones' is available through the Customer Contact team, Environment Agency, Nottingham office.

Site inspections for compliance with the Groundwater Directive are also being made involving premises where both authorised and non-authorised activities are carried out. The directive seeks to control the discharge of harmful and persistent chemicals such as cadmium, mercury and pesticides. These inspections are designed to prevent pollution arising from any processes on site that may impact on groundwater. Advice is given on the correct storage and disposal of chemicals and oils, and checks are made on compliance with discharge consents. The sites inspected include farms who need to dispose of pesticide residues produced as part of their business and premises where solvents are used in processes such as dry cleaning and metal finishing.

For more information, please contact: Jeff Dolby in Environmental Protection, Environment Agency Nottingham office.

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...its porosity also means that it is at great risk from pollution...

Agency defeats Australian Stonecrop

Action 14.8

The Agency is pleased that efforts made to control an outbreak of Australian Stonecrop, an invasive aquatic plant (*Crassula helmsii*), on the North Level Engine Drain appear to have been successful. Mechanical methods of clearance would encourage growth, so herbicide spraying is the only alternative treatment. Therefore a careful spraying programme with herbicide suitable for use on watercourses was undertaken. Dead material was removed from the drain to reduce oxygen depletion by the decomposing plant. The drain will continue to be monitored for any re-growth.

Australian Stonecrop is just one example of the alien invasive species that the Agency seeks to eradicate. Introduced into Britain in 1911 from Tasmania, Stonecrop, despite its name, grows around the damp margins of ponds and in water up to 3m deep. It forms very dense masses (stands) that out-compete all other aquatic vegetation leaving a poorer ecosystem for invertebrates and fish. If you are aware of the presence of Australian Stonecrop or other invasive plants such as Japanese Knotweed and Giant Hogweed, please notify the Agency. The Agency publication, 'Guidance for the control of invasive plant near watercourses' gives further information and is available from the Customer Contact team, Environment Agency, Nottingham office.



The North Level Engine Drain is now clear of Australian Stonecrop

New emphasis on contaminated land

Issue 13

...working with several partners towards the voluntary remediation of sites...

The Agency has continued to work with partners throughout the Nottinghamshire/ South Yorkshire coalfield to help in the regeneration of former colliery sites and the remediation of contaminated land problems. Also, since April 2000, the Agency has played its part in the implementation of Part IIA of the Environmental Protection Act 1990.

This legislation puts a new emphasis on contaminated land. It is aimed at ensuring that sites contaminated by historic activities and causing harm to the environment, or human health, are remediated. Under the Act, local authorities and the Environment Agency have each been given specific powers. Now, the appropriate persons (this may be the original polluter, the site owner or the occupier) are required to prevent contaminated land causing such harm. Using information provided by the Agency, each local authority in the area has recently produced a strategy describing how they will identify contaminated sites. Once identified, the emphasis is placed on achieving remediation of contaminated land through voluntary action, particularly if this ensures that disused land is regenerated to beneficial use.

The Agency is working with several partners towards the voluntary remediation of sites in the Idle and Torne

catchment. This has included joint funding of a research programme at Sheffield University to understand the on-going impact of groundwater contamination from the former Mansfield colliery. This research is looking at how pollution moves through the Sherwood Sandstone aquifer during which natural attenuation of the pollutant can occur. The resulting model will be used to better understand conditions on other similar sites.

The Agency is also involved in a scheme to sort out coal tar contaminated soils at Dinnington in South Yorkshire. Yorkshire Forward, a Regional Development Agency has proposed to remediate the soils by ex-situ bio-remediation (this is taking the soil off site, then using natural bacteria to decay the soil contaminants). A waste management licence would control this action. The Agency is looking at the proposals in detail to ensure protection of the environment is achieved. After remediation, the land will probably be developed as a mixed-use site. Contamination issues at several other colliery sites are also being discussed with relevant local authorities, site owners and occupiers.

For more information, please contact: Clare Bates in the Contaminated Land team, Environment Agency Nottingham office.



Mansfield Colliery, view over Vicar Pond and Clipstone Colliery from the pit head



Environment Agency and Sheffield University staff at a monitoring borehole

Rare beetles sought

Action 14.6

The Agency has engaged the services of volunteer wildlife surveyor Bob Merritt to sample sites for rare water beetle communities in the Idle and Torne area. The sampling will hopefully find populations of two diving beetles, *Laccophilus poecilus* and *Hydroporus rufifrons*, both of which are classed as vulnerable on the Species of Conservation Concern (SoCC) list. All beetles found will be recorded and this is likely to include some regionally and nationally important species. English Nature, Lincolnshire Trust for Nature Conservation and the Balfour-Browne Club are supporting the project. Sampling will take place on the Thorne Moors SSSI (Site of Special Scientific Interest) and the Hatfield Chase area including various northern drains where it is thought that suitable habitats for water beetles still exist. Many beetles in the area are under threat through removal or destruction of their habitat for peat extraction and changes in water levels due to water abstraction and drainage management. It is hoped that the status and distribution of existing populations will be ascertained, which will help in the formation of a strategy to protect these rare species.



The pond at Epworth Turbury will be sampled

Understanding wetlands protects important wildlife

The potential for protecting important wetlands in the north of the Idle and Torne area has been taken forward, following work carried out by the Agency and partners over the past year. The completion of a geological and hydrological review has led to improved understanding of the complex relationships between river flows and groundwater and surface water levels in the Thorne and Hatfield Moors area. Also, a water levels monitoring scheme in the Idle Washlands area is helping to fine-tune a water level management plan being prepared for that area. This work helps the Agency plan the best way of managing the precious water resources of these areas.

Careful management of water resources is vital to protect the rich abundance of wildlife at these internationally important wildlife sites. Thorne Moors are the largest remaining lowland raised peat mire in Britain. Their 1,900 hectares are home to rare plants, such as Bog Rosemary, Bladderwort and Marsh Cinquefoil as well as lizards, adders and the very rare Large Heath butterfly. Bird life includes breeding Nightingales and an internationally important population of Nightjars, a ground nesting bird which needs open habitats to breed. Amazingly, over 5,000 species of plants and animals are found on the Thorne and Hatfield moors.

The Idle Washlands SSSI (Site of Special Scientific Interest) in north Nottinghamshire is an area of flood meadow. It was once part of a much larger area that flooded extensively most winters but was reduced from 1,250 hectares to 84 hectares, following agricultural pump drainage in 1983. Water company boreholes adjacent to the SSSI may be contributing to increased water loss from these washlands. The Agency is working to improve the management of the water resources in this area. Jason Fairbairn, Hydrogeologist says, 'We are currently putting together the River Idle water level management plan, which aims to balance the needs of abstractions and of the natural environment.'

Despite their protected status, commercial peat extraction continues on the Moors. Large areas are drained and surface vegetation is stripped before the milling

can begin. The drainage process takes several years, destroying the conditions required by the many plants and invertebrates through desiccation. Extraction is also continuing to damage the record of past ecological and climatic changes (palaeo-environmental resource) provided by the peat, and the archaeological remains contained within it.

Planning permission to mill these sites can be revoked, but only if compensation for the commercial loss is paid - estimated at many millions of pounds at these sites. Unfortunately, none of the local authorities or conservation charities can afford to buy-out the milling permissions. However, once a minimum level of peat is reached, the land is handed over to English Nature who

can then manage it for the benefit of nature. The Agency has a good working relationship with English Nature and together we hope that the Moors and Washlands will be preserved for future generations to enjoy.

For more information, please contact: Monica Garcia-Acebes in Hydrology, Environment Agency Nottingham office.

...balance the needs of abstractions and of the natural environment...



The Idle washlands at Bawtry Carr



Drainage control installed by English Nature on the Hatfield Moors peat bog restoration area

Managing the legacy of coal mining

Issue 13

The Agency is currently in discussions with the Coal Authority to develop a long-term action plan to manage the potential impacts of mine closures in the Idle and Torne area. Initially this will involve the monitoring of minewater rebound due to pumping stopping at Annesley and Bentick collieries which have closed. Rebound can lead to uncontrolled discharges of minewater into



watercourses or aquifers. This can affect public water supplies and have detrimental effects on freshwater ecosystems. The installation of a treatment plant may become necessary, but the plan will be continually developed as and when other colliery closures occur in the area. Due to the extensive areas of abandoned mines present in the Idle and Torne area, the minewater situation is unlikely to stabilise for many years.

Water courses in this area can also suffer from excessive plant growth

Our Vision: making it happen

Early in 2001, the Environment Agency launched its vision for the future. This aspirational document, 'An Environmental Vision – The Environment Agency's Contribution to Sustainable Development' sets out the state of the environment the Environment Agency would like to see achieved by 2020. Recently, the Agency has launched 'The Vision for our Environment: Making it Happen' which describes our plan to deliver our Vision over the next five years. It is a statement of our commitment to protecting and enhancing the environment.

The Making it Happen document is sharply focused and contains clear priorities and targets that will help to deliver our vision effectively. This means that everything we do drives towards an enhanced environment and better quality of life for all.

Each Area office of the Agency is currently developing how we will 'make it happen' at a local level and over the next few months we will be working up our local contribution to the vision in the Lower Trent Area.

Further information about 'The Vision for our Environment: Making it Happen' is available on the Agency's website - www.environment-agency.gov.uk.

Studying the Humber Headlands

Action 1.3

Following past projects looking at individual aspects of water quality problems encountered in the Humber Headlands area, the Agency has recently embarked on a full study of the situation. The study will look at trends in a variety of chemical and biological parameters, some of which have not been measured before. Part of the project will involve populating the RivPak computer programme with the data – the data will take at least two years to collect. This programme makes a comparison between what could be expected under perfect conditions and what is actually present. The study will lead to a greater understanding of the impacts on water quality, if any, of peat milling operations, mining activities and farming practices in the area.



The Sherwood Initiative programme

General Interest



Once vast, Sherwood Forest is now fragmented

The Sherwood Forest Trust is developing a programme to improve the management of existing woods, heaths and wetlands and create new natural sites. The Sherwood Initiative programme will cost around £5.5m and will take some five years to deliver. It also aims to improve enjoyment of the well known Sherwood Forest landscape and help everyone to understand its value to the area and the nation.

The Agency has been involved in advising the Trust on the project proposals to ensure they do not have a detrimental impact on the environment. Gordon Hewston, Project Officer, Sherwood Forest Trust explains: 'the involvement of the Environment Agency will enable the Trust to support further habitat creation and restoration in the area and meet joint objectives.'

Progress

The results of this year's Annual Review are that 3 actions have been completed (4.1, 4.4 & 10.1), 5 actions have been removed to be reported through other ongoing actions (12.2, 12.3, 13.2, 13.3, 15.3), 4 actions have had no progress made (6.1, 7.1, 9.4, & 14.4) mainly because they were not due to start during 2001, no new actions have been added and 45 actions are being carried forward to next year.

Should anybody wish to support the work within the Idle & Torne LEAP area or require a full report of progress made on LEAP actions this year, then please contact: Sam Todd in the Partnerships team, Environment Agency Nottingham office.

We would be delighted to receive your feedback. For further details on any of the articles in this newsletter, to give us your views on this new style of Annual Review reporting or to get involved, please contact:

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This newsletter covers the Idle and Torne catchment area. Other catchments covered by the Lower Trent Area office are: Lower Trent and Erewash, Derbyshire Derwent and Soar.

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