



New Wetland Harvests : project to develop new, environmentally sustainable technology for wetland management.

LIFE97 ENV/UK/000511

[Project description](#) [Environmental issues](#) [Beneficiaries](#) [Administrative data](#)

Contact details:

Project Manager: Rob ANDREWS

Tel: 44.1603.610734

Fax: 44.1603.765710

Project description:

Background

Wet reedbeds and fens have declined dramatically in the EU in the last century, and the UK hosts a large proportion of the surviving habitats. The Broads include the largest example of these habitats in the UK. The majority form part of the Natura 2000 series. Wetlands provide many important services to society and are at the same time ecologically sensitive systems. However, as a result of changes in agricultural practices these valuable wetland areas have become neglected and, through natural succession to woodland, there have been losses of biodiversity, landscape and recreational assets. Since maintaining these environmental assets depends on continued wetland management, including regular removal of the standing crop, much attention has recently been directed towards the formulation and operation of sustainable management strategies for wetlands. As well as government commitments to maintain wet reedbeds and fens through national biodiversity action plans, there are many large-scale projects to restore and create new wetlands. The longterm success of these plans will depend on the existence of new commercial harvesting systems that take full account of environmental needs.

Objectives

The project was based in the Broads, an area that shares equivalent status to that of a National Park. The aim of the project was to establish and test a new technology which would enable the harvesting and use of natural materials from wet reedbeds and fens. The project aimed to elucidate the technical, environmental and economic aspects of this approach in comparison to alternative labour intensive methods and wetland neglect. This involved the design, procurement and demonstration of a specialised mechanical harvester, together with a system for transporting and handling the cut material, all

designed to cope with wet and uneven terrain of high environmental sensitivity. Dissemination was to be targeted at authorities and European regions where the potential benefits for technology transfer was greatest.

Results

An efficient, low cost method of harvesting was developed that could work on very soft ground without damaging the plant communities or becoming bogged down in marshy conditions. This is a major development, which allows economic large scale cutting of wet fen using environmentally friendly low ground pressure machinery. A new technique of blowing cut material from the marsh down a long pipeline was developed and customised to be able to cut plants of different degrees of toughness and moisture content. A lightweight portable bridging system that enabled the machinery to cross dykes in the more inaccessible areas was developed. The fen pipeline was able to discharge directly into road transportation from where it could be taken to an indoor product handling area. Inside the covered storage area trials were completed that culminated with the development of a drying system that could reduce the moisture content of the fen litter from more than 50% to about 15% total water content, using cold or hot air. Viable product outlets for this litter were demonstrated for composting, animal food, or as a soil improver. The most promising uses, however, were demonstrated to be as a biofuel to produce heat and electricity or as a high value product to be sold as pet litter. The need was identified for a very local outlet to reduce transportation costs and therefore required the building of a facility in the immediate environment of the Broads. The technology was demonstrated to be equally applicable to a wide range of wetlands throughout Europe, where either the whole system or part of the equipment could be used to achieve the same nature conservation objectives. In conclusion, the project demonstrated that, assuming the same ecological benefits, grazing is the least-cost option, and where grazing is not possible, management with the harvester is more cost effective than hand-cutting, at least as far as harvesting is concerned. It remains to be seen whether the later stages of transporting the material off-site, drying and transporting to market outlets is cost effective. This depends on what market price is achievable, and what the damage of leaving the material on site costs.

[Top](#)

Environmental issues addressed:

Themes

Land-use & Planning - Sensitive and protected areas management
Industry-Production - Agriculture - Forestry

Keywords

wetland, agricultural method, protected area, sensitive area, soil degradation

Target EU Legislation

- Nature protection and Biodiversity
- Directive 79/409 - Conservation of wild birds (02.04.1979)
- Directive 92/43 - Conservation of natural habitats and of wild fauna and flora- Habitats Directiv ...
- Decision 93/626 - Conclusion of the Convention on Biological Diversity (25.10.1993)
- COM(95) 189 - "Communication on the judicious use and conservation of wetlands" (12.12.1995)
- COM(98)42 -"Communication on a European Community Biodiversity Strategy" (05.02.1998)
- COM(2001)162 -"Biodiversity Action Plan for the conservation of natural resources (vol. I & II)" ...
- Land & Soil
- Regulation 2078/92 - Agricultural production methods compatible with the requirements of the prot ...

Natura 2000 sites

Not applicable

[Top](#)

Beneficiaries:

Coordinator	Broads Authority
Type of organisation	Park-Reserve authority
Description	A special statutory authority charged with the coordination of management in the Norfolk and Suffolk Broads (the Broads).
Partners	Anglian Water English Nature Ministry of Agriculture, Fisheries and Food (MAFF) Royal Society for the Protection of Birds (RSPB) British Reed Growers Association Norfolk Wildlife Trust

[Top](#)

Administrative data:

Project reference	LIFE97 ENV/UK/000511
Duration	01-APR-1997 to 01-SEP -2000

Total budget	1,047,116.69 €
EU contribution	491,909.62 €
Project location	East Anglia(United Kingdom)

[Top](#)

[Project description](#) [Environmental issues](#) [Beneficiaries](#) [Administrative data](#)
[Read more](#)