

RESTORING ACTIVE BLANKET BOG IN IRELAND

PROJECT No: LIFE02 NAT/IRL/8490

(1ST JULY 2002 – 30TH JUNE 2006)

PROGRESS REPORT YEAR 1

COVERING PERIOD

1ST JULY 2002 – 30TH JUNE 2003

REPORT COMPILED BY:

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31ST JULY 2003



coillte

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BACKGROUND TO THE PROJECT

During the 1960s-1980s, the policy of successive Irish governments was to establish forestry plantations in remote areas mainly on the western seaboard. The main objective of this policy was to retain the population in these areas which had been subject to decades of emigration and to provide employment and wealth, by creating a sustainable natural resource.

As a result, during the 1960s to 1980s, efforts were made to establish forest plantations on blanket peats. Following research trials, large scale annual afforestation programmes were undertaken and extensive areas of blanket bog were drained, fertilised and planted with conifers (mainly Sitka spruce and lodgepole pine), the only tree species that would provide an economic return on these sites. At the time, blanket peats were regarded as wasteland to be converted to more productive uses such as agriculture or forestry. Farm and forest management systems were developed to meet the primary objective of production with little attention being paid to biodiversity or the impact of operations on environmental receptors. This work provided employment for local people as well as the prospect of income and a growing industry into the future. Overall, 150,000 ha of western blanket peats were afforested, the programme on these peats culminated in 1993. Today, in a global or European context, Ireland's blanket peatland resource fulfils the criteria for inclusion, designation and management as a world heritage centre. The resource is acknowledged as:

- A museum of past civilisations, climates and environments
- A habitat for organisms adapted to extreme environments
- Areas of educational and amenity value
- Reserves of genetic resources
- An essential part of the biosphere.

These facts have resulted in new management options for afforested peatland areas. One such option is restoration where suitable of peatland habitat. Such is the focus of this LIFE-Nature project which is now operationally active.

At all stages during the project, the work we require to do on each site is being offered to local contractors, where practicable. Every effort is being made to involve local people as much as possible in the project, from working on sites to participating in interpretive meetings and demonstrations.

INTRODUCTION, PROJECT OBJECTIVES AND EXPECTED RESULTS

The peatlands of the west of Ireland are internationally among the most important intact areas of active blanket bog found in Europe. Since 1997 approximately 135,000 ha of active blanket bog have been proposed as candidate Special Areas of Conservation [SAC] under the Habitats Directive. These proposed Natura 2000 sites are located mainly in the Atlantic seaboard counties of western Ireland, especially County Mayo.

This LIFE-Nature project (duration 2002-2006) aims at priority habitat restoration on 14 blanket bog sites covering 1,212.3 ha within candidate SACs, on a mix of unplanted, or partially or wholly afforested bogland sites. Coillte Teoranta [The Irish Forestry Board], consistent with the principles of its programme of sustainable forest management, has divided its estate into forest management units [FMUs]. The project area is on land owned and managed by Coillte in various FMUs. Special emphasis is being placed on sites in the North Mayo Forest Management Unit, where the full range of blanket bog types occur from lowland to mountain blanket bog (involving sensitive river catchments). In other FMUs, the project sites are representative of afforested peatlands around the country. Five of these sites (No. 3, 5, 7, 13 and 16 on the attached map) have been selected as project demonstration sites, these are the focus of a public awareness programme over the four-year period of the project involving demonstration days, interpretation and boardwalk access.

In the past, the blanket boglands of Ireland were extensively afforested, with unfenced open areas often heavily overgrazed. This has resulted in degradation and drying out of the habitat. These threats are the focus of this project. The issues, which need to be addressed, are:

- Uncontrolled areas on the open bogs have been overgrazed;
- Forestry drains on the open bogs have lowered the natural water-levels;
- Afforestation, including drainage, has reduced the area of blanket bog;
- Neighbouring forest plantations are regenerating onto the open bog SACs.

This project will reverse these processes and over time will re-habilitate a high quality area of active blanket bog priority habitat by:

- Fencing to gain control of 718.6 hectares of open bog areas;
- Removal of trees on some 493.7 ha to enlarge the blanket bog area;
- Drain blocking to restore the integrity of the bog hydrological systems;
- Removal of naturally regenerated trees from the open bogs.

Bog restoration techniques on afforested peatland pioneered in the LIFE-funded “The Border Mires Active Blanket Bog Rehabilitation Project” (UK) are being used in this project and other techniques are being evaluated. Links with other LIFE funded projects with an emphasis on tree clearance have also been made. This LIFE-funded restoration project is building on draft conservation management plans for the project sites, the development of which by National Parks and Wildlife (formerly Dúchas The Heritage Service) was previously supported by EU LIFE funding.

By the end of this project it is expected that a significant amount of blanket bog restoration will have been achieved. Funding from LIFE-Nature is expected to demonstrate the restoration of suitable active blanket bog sites as one of the management options on afforested peatlands.

SUMMARY OF PRINCIPAL ACHIEVEMENTS

While a variety of issues has served to delay some project actions, progress to date on Project LIFE02 NAT/IRL/8490 “Restoring Active Blanket Bog in Ireland” has been steady:

- Most preparatory “A” actions have been completed in Year 1 where practicable (experience during Year 1 has shown that some actions need to continue for the duration of the project);
- With the exception of Action C2 (felling and chipping), all non-recurring management “C” actions have begun in Year 1 and operational work is ongoing on the majority of project sites;
- Work done in Year 1 includes non-commercial tree felling (C1), commercial felling (C3), drain blocking (C4), fencing (C5), road building (C6) and installation of dipwells (C7) (work has since commenced on felling and chipping (C2) in Quarter 1 of Year 2);
- All recurring management “D” actions have begun in Year 1 (except Action D2 which has not proved necessary to date);
- Work done in Year 1 includes removal of natural regeneration (D1) and measurement of nutrient flow from sites (D3);
- All public awareness “E” actions programmed for Year 1 have begun (Actions E4 and E5 are not applicable in Year 1);
- Work done in Year 1 includes land manager training course (E1), project website (E2), project information brochure (E3), media publicity campaign (E6) (including articles having been inserted into a number of provincial and local newspapers, the background to the project having been posted on the Coillte website (www.Coillte.ie), and various articles having been written and published in Coillte’s in-house magazine *Coillte Contact*) and interpretive displays and boardwalks (E7).
- While not a requirement of the project, a Natura 2000 “Green Day” was organised and held in June 2003 to promote and inform the public about the project.
- All project management “F” actions programmed for Year 1 have begun (Actions F8 and F9 are not applicable in Year 1);

- Work done in Year 1 includes Project Management Group meetings (F1), Project Advisory Panel meeting (F2), visit from DG-Environment/external team and project report preparation (F3), procurement of expert advice (F4), scientific study of groundwater discharge “flushes” (F5), hydrology monitoring (F6), and vegetation monitoring (F7).
- Good links have been made with personnel from other LIFE projects, and a number of staff from the Border Mires project (UK) are scheduled to visit the west of Ireland in the 1st week of September 2003 to view progress on the project.

A major issue raised by the Forest Service during the initial start up phase of the project was the interpretation of the need for an Environmental Impact Assessment (EIA) for clearfelling sites greater than 70 ha within the project. This prevented operational work on the two largest tree-felling sites in the project during Year 1 – adversely effecting achievement under Actions C1 and C2. The Forest Service have now confirmed in writing (7 July 2003) that an EIA will not be required, felling licences for the two areas in question have been granted, and the work has been re-scheduled for Year 2.

Another major delay resulted from the withdrawal of the chipping contractors originally identified for Action C2; a new contractor has been sourced to complete the felling and chipping operation and work has commenced in Quarter 1 of Year 2.

Now that these major issues have been resolved we are confident of catching up on Year 1 achievement targets during the first half of Year 2 as well as meeting the original Year 2 targets.

Further detail on all the above can be seen in the comments section under each appropriate action in the **REPORT BY ACTION** section which follows.

REPORT BY ACTION

A. PREPARATORY ACTIONS, ELABORATION OF MANAGEMENT PLANS AND/OR ACTION PLANS			
Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed To Date
A1 Site visit to see another LIFE sponsored project.	Year 1, Quarter 1	Up to 20 persons to visit Border Mires Project in Northumberland (UK)	10 Coillte Staff travelled together with 5 Staff from The National Parks and Wildlife (formerly Dúchas) in October 2002
<p>Comments 4 members of the Project Management Group attended the Border Mires Project Conference (LIFE98 NAT/UK/005432) in early October 2002, which also included a field visit. 6 project staff from Coillte, together with 5 staff from The National Parks and Wildlife, visited the project in late October 2002. The staff from the National Parks and Wildlife were not charged to the LIFE budget. Further Coillte staff will visit another LIFE-funded site in October 2003 and the National Parks and Wildlife have expressed a keen interest in sending more staff on this visit also.</p> <p>All those who attended found the experience most informative in terms of the different restoration techniques outlined and viewed while on the visits. Links established have continued to date with the staff from the Border Mires Project due to visit our LIFE project in the west of Ireland in September 2003. This action has also proved very beneficial in developing a good working relationship between Coillte and The National Parks and Wildlife on bog restoration.</p>			
A2 Elaboration of action plan.	Year 1, Quarter 2	Consultation procedure to take place with The National Parks & Wildlife and other stakeholders on all sites	Action completed on all sites. However, on-going consultation with The National Parks & Wildlife Staff will continue during the lifetime of the project.
<p>Comments Consultation procedure drawn up to progress this action. (See Appendix 1) .</p>			

A. PREPARATORY ACTIONS, ELABORATION OF MANAGEMENT PLANS AND/OR ACTION PLANS

Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed To Date
A3 Identify Safety Hazards and draw up a general safety plan for sites.	Year 1, Quarter 2	Safety plan to be drawn up, hazard identification risk assessment forms (HIRA) to be completed	Safety plan drawn up, HIRA forms completed for actions to date. Work began here in October 2002 and is ongoing as actions begin.
<p>Comments Site managers will continue to work together with Coillte’s safety & training team to ensure that appropriate safety procedures are in place over the duration of the project to comply with Health & Safety Regulations.</p>			
A4 Survey of fence lines and enclosures.	Year 1 Quarter 2 and 3	Survey work to be completed on sites 3,5 and 6	Work not needed on site 3 and 5. Work completed on Site 13.
<p>Comments This action was scheduled for sites 3, 5 and 6. Following a review of the programme in Quarter 2 Year 1, it was agreed that no survey work was required on site 3-Dromalohurt and site 5-Emlaghdauroe as agreement was reached on undefined boundaries. Work on site 6-Bellaveeny was delayed due to an EIA (environmental impact assessment) issue which has now been resolved. The need for this work will be re-evaluated in Year 2 of the project. Issues with undefined boundaries which arose on site 13-Croaghonagh North have been resolved and survey work has been completed on this site.</p>			

A. PREPARATORY ACTIONS, ELABORATION OF MANAGEMENT PLANS AND/OR ACTION PLANS

Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed To Date
A5 To produce plan accurate photographs of all project sites.	Year 1 Quarter 1 & 2	All sites to be surveyed to determine levels for drain blocking	Levels determined on sites no. 5, 13 and 16.
Comments After discussion with both Coillte engineering staff and external contractors, it became apparent that the agreed budget is insufficient to complete this work on all sites. A quotation received outlined that the cost for 3 sites in close proximity, 6-Bellaveeny, 9-Owenirragh and 11-Shanvolahan would cost in the region of €9,500. An issue with photogrammetry is that it is only practical to complete this work when tree clearance has taken place, This would delay the progress of the project and the cost implications would only allow this work to be completed on perhaps 1 site. The overall budget for this action is €3,809. In order to counteract this problem and to progress work, a decision was taken to purchase an engineer's automatic level for €550. Coillte engineering staff have trained a number of site managers and selected forest workers on the use of this level, and work has commenced in Quarter 1, Year 2. At this time, it is envisaged to stay within the original A5 budget using this alternative approach and complete work as scheduled. It will be necessary to move the finance for this action from external assistance to durable goods and personnel.			

C. NON-RECURRING MANAGEMENT			
Project Action	Scheduled	Quantifiable Target [where applicable] For Year 1	Completed to Date
C1 Fell mature trees non-commercial felling.	Year 1 Quarter 3 & 4	202 ha to be felled (overall project)	17.3 ha felled
<p>Comments</p> <p>This action was programmed for sites 2-Garrane, 3-Dromalohurt, 4-Pollagoona, 6-Bellaveeny, 11-Shanvolahan, and 14-Carrick Barr. Felling licences were applied for in all cases to the Forest Service and appropriate consultation carried out.</p> <p>Felling licences have been granted for all sites with the exception of site 6-Bellaveeny. This site was one of the two sites where there was a delay in relation to progression of the felling licence application due to the EIA issue raised by the Forest Service. This issue has now been resolved with the Forest Service and a copy of the correspondence can be seen in Appendix 2.</p> <p>Site 2-Garrane 16 ha to date, the balance to be completed in Quarter 1 Year 2.</p> <p>Site 3-Dromalohurt After review of this site, work on this action has begun in Quarter 1 of Year 2.</p> <p>Site 4-Pollagoona After review and consultation with The National Parks and Wildlife, it was agreed to defer work on this site due to the fact that the site is extremely wet and only suitable for summer work. This work has begun in Quarter 1, Year 2. A further issue regarding the boundary of the SAC in this area is currently being discussed with The National Parks and Wildlife which may result in minor variations to the site boundaries.</p>			

Comments for C1 Continued.....

Site 6-Belleveeny

This site together with site 9-Owenirragh were the two sites on which the felling licence application was delayed due to an EIA (environmental impact assessment) issue raised by the Forest Service. This issue has been resolved in July 2003. The felling licence has been re-submitted, appropriate consultation carried out and it is hoped that the licence will be granted during Quarter 1 of Year 2 to allow work to commence on this action.

Site No. 11 – Shanvolahan

This site has been programmed as a site on which Action F5 –“ Gain scientific understanding of points of groundwater discharge ‘flushes’ and their surrounding ecology” should be monitored. After consultation with The National Parks and Wildlife and with Minerex Environmental Ltd (contractors to the project for Action F5), it was agreed that the felling of this site should not commence until Quarter 2 of Year 2 to allow sufficient time for F5 research before C1 operations impacted on the site area.

Site No. 14 – Carrick Barr

Access to this site is very poor and consequently it is not feasible to bring a harvesting machine onto the site. Manual felling is being considered as an alternative. It is planned to begin felling in Quarter 1, Year 2.

Site No. 5 – Emlaghdauroe

This action was not planned for this site as it was all originally programmed under C3 – Commercial felling. However an area covering 1.3ha with a very poor crop and very good bog vegetation necessitated felling to waste to be carried out. A number of other poor crop areas have been identified during the commercial felling process and a final evaluation to agree the overall split between C1 and C3 will be completed during Quarter 1, Year 2.

C. NON-RECURRING MANAGEMENT

Project Action	Scheduled	Quantifiable Target [where applicable] For Year 1	Completed to Date
C2 Fell and chip conifers	Year 1 Quarter 2 & 4	173 ha to be felled and chipped (overall project)	Minimum expenditure on this action in Year 1 (see comments).

Comments

The programme for this action had planned that a chipping machine would be purchased for €25,395 and would be fitted onto a contractor's forwarder. The contractors identified originally during the planning phase to carry out this operation were no longer interested when the project was approved.

Subsequently a suitable local contractor had to be sourced. The contractor identified travelled to the UK in May 2003, purchased a machine, researched the chipping operation, and the modifications needed to allow the machine to work on bog sites. This has taken considerable time and effort and hence has delayed this action. Work has begun in Quarter 1, Year 2.

This action was planned on sites 3-Dromalohurt, 4-Pollagoona, 7-Eskeragh1, 8-Eskeragh2, 9-Owenirragh and 11-Shanvolahan. Work has commenced on site 8-Eskeragh2 in Quarter 1 of Year 2, and an evaluation of costs and productivity is ongoing on this site. Coinciding with this an ecological review is also taking place of the sites in this action to determine alternative treatments. From initial findings, it has become apparent that costs will be significantly higher for this action than were originally programmed. When the findings are complete on site 8 for this action in relation to costs, productivity, ecology etc, the work programme for the other sites will be re-evaluated. At this stage it is envisaged that only (25%) of the programme can be achieved within the agreed budget (approximate plan cost €785/ha, approximate actual cost €3,000/ha).

Alternatives being considered are transferring savings made in other areas to either complete this action as programmed or fell the remainder to waste which would be considerably cheaper. If, as seems likely, a major budget change is required here, we will seek the Commission's approval as soon as the implications of the full cost analysis from site 8 are known.

C. NON-RECURRING MANAGEMENT			
Project Action	Scheduled	Quantifiable Target [where applicable] For Year 1	Completed to Date
C3 Commercial felling.	Year 1 Quarter 4	124.6 ha to be felled (overall project)	30 hectares See Comments
<p>Comments Mechanical felling and extraction of pre-mature crops was planned on sites 2-Garrane, 5-Emlaghdauroe, 11-Shanvolahan and 15-Sessuegilroy. See Appendix 10 for operational photographs.</p> <p>Site 2-Garrane It was not possible to get a customer to fell and extract a crop from this site because of access, ground conditions and size of material. This area is being felled under action C1 – Fell non-commercial.</p> <p>Site 3-Dromalohurt This action is now planned for Quarter 1 Year 2 in conjunction with Action C1 which has commenced. At this stage it appears that part of this material will have to be felled to waste rather than commercially as originally planned.</p> <p>Site 5-Emlaghdauroe 30 hectares felled to end of Year 1.</p> <p>Site 11-Shanvolahan The work has not commenced due to the reasons outlined above for this site in C1 – Non- Commercial felling.</p> <p>Site 15-Sessuegilroy Commercial felling has begun in Quarter 4 of Year 1 and is expected to be completed in Quarter 1 of Year 2. Part of this site will also require non-commercial felling as it does not have a viable crop. A boundary issue has arisen on this site as the original map submitted with the proposal did not include all the SAC. The area in question is approximately 2 hectares.</p>			

C. NON-RECURRING MANAGEMENT			
Project Action	Scheduled	Quantifiable Target [where applicable] For Year 1	Completed to Date
C4 Install dams	Year 1 Quarter 1, 2, 3 and 4	An <u>estimated</u> 75,000 dams to be installed (overall project)	825 dams installed in Year 1.
<p>Comments</p> <p>The sourcing of a supplier of plastic piling material proved difficult in Ireland, however a supplier was sourced in Northern Ireland – namely BPF Recycling, Downpatrick, Co. Down. Work not scheduled to start on sites 2, 3, 4,5, 6, 7,9, 11,and 14 during Year 1. Site no. 10 has no drain blocking scheduled in the project. See Appendix 10 for operational photograph.</p> <p>Site 5-Emlaghdauroe -This action was not planned to start until year 2, however tree felling was ahead of schedule and, post-harvesting, the site was deemed ideal to begin this action as it was very wet. This site, which is one of the demonstration sites, was used to demonstrate a number of restoration methodologies in progress to the Project Advisory Panel, Project Management Group and for the benefit of participants who attended a land managers training course.</p> <p>Site 8-Eskeragh 2 -Scheduled to start in Year 1, however, as explained under Action C2 – Fell and Chip, this operation will be delayed until year 2.</p> <p>Site 13-Croaghonagh -Work on this action is ongoing on the site. Resulting from a consultation meeting between the Project Management Group and the National Parks & Wildlife and our contract project ecologist, it was agreed to do 1 ha of drain blocking on a trial basis using peat which will be done in Year 2. It was also agreed that this overall action should be carried out in two phases during the spring/summer of 2003 and spring/summer of 2004. The first phase of this will be completed in Quarter 1 of Year 2.</p> <p>Site 15-Sessuegilroy -This action can not progress until commercial felling is complete. See Action C3.</p> <p>Site 16-Slieve Blooms -This action was all planned for Year 1. However, it was not possible to complete the action, as the workers involved also completed part of Action D1 (removal of natural regeneration). It is now expected to carry out the remainder of both actions in year 2.</p>			

C. NON-RECURRING MANAGEMENT

Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed to date
C5 Erect enclosures on unplanted areas and repair fences on cleared areas.	Year 1 Quarter 3 & 4	12.75 km of new fence and 21.5 km of repairs to be completed (overall project)	2,470 metres completed
<p>Comments 12.75 km of new fence to be erected at sites 3,5, 6 and 10. 21.5km of repaired fence line to completed at sites 2,5,6,7,8,9, 11 and 14. Work not scheduled to start on sites 2, 5, 11 and 14 during Year 1.</p> <p>Site 3-Dromalohurt A new fence will be erected on this site following felling operations in year 2.</p> <p>Site 6-Bellaveeny New fence – will commence in Year 2. Repair fence – work commenced in Year 1 and will be ongoing in year 2, to date 2,120 metres of fence repairs erected.</p> <p>Site 7-Eskeragh Repair – will not commence until felling operations are complete.</p> <p>Site 8-Eskeragh Repair – will not commence until felling operations are complete.</p> <p>Site 9-Owenirragh Repair – will not commence until felling operations are complete.</p> <p>Site 10-Glencullin Lower New fence – this work was planned for Year 1 and is completed. 350 metres of new fence erected.</p>			

C. NON-RECURRING MANAGEMENT			
Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed to date
C6 Build and repair roads onto sites for safe access and the removal of trees.	Year 1 Quarter 2 & 4	500m New Road to be constructed plus repairs (overall project)	405 metres completed in Year 1.
<p>Comments Site 2-Garrane It was not possible to remove a commercial crop from this site, subsequently a road was not required on this site.</p> <p>Site 3-Dromalohurt It was necessary to construct a lay-by to provide off road access and parking facilities for staff working on site and, as this is one of the demonstration sites, to allow public access.</p> <p>Site 5-Emlaghadauroe The work schedule was re-evaluated and it was agreed that it was more practical to complete the roading in Year 1. After consultation with the Forest Service, the National Parks and Wildlife, Coillte and Fishery Boards, it was necessary to increase the roading requirement to lessen the impact of siltation from the clearfelling operations on the nearby streams.</p> <p>Sites 7 & 8-Eskeragh Planning and consultation complete in Year 1 and road building has commenced in Quarter 1 of Year 2.</p> <p>Site 11-Shanvolahan Planning and consultation complete in Year 1 and road building to be completed in Quarter 1 of Year 2.</p>			
C7 Install dipwells.	Year 1 Quarter 3 & 4	121 Dipwells (Walrags) to be installed	121 Installed and operational.
<p>Comments See Appendix 3 – Report from contract Ecologist. See also Action F6</p>			

D. RECURRING BIOTOPE MANAGEMENT			
Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed to Date
D1 Remove natural regeneration.	Year 1 Quarter 2, 3 & 4	252 ha (Overall Project)	65.1 hectares completed in Year 1.. Work ongoing .
<p>Comments 252 ha of blanket bog will be cleared of regenerating conifers on site 16-Slieve Blooms. There will be some regeneration clearance on sites 2,3,4, 5,6,7, 8,9,11, 14 and 16 which will be treated towards the end of the project. See Appendix 10 for operational photograph.</p> <p>This action on site 16 was all planned for Year 1 under contract staff, however the unavailability of contract staff in the area necessitated that we progress this action with Coillte direct staff. This option is working well and will be used to complete the action.</p>			
D2 Removal of trespassing livestock.	Year 1 Quarter 1, 2, 3 & 4	As required on sites	Nil
<p>Comments No trespassing stock needed to be removed during Year 1.</p>			

D. RECURRING BIOTOPE MANAGEMENT			
Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed to Date
D3 Measure nutrient flow from sites	Year 1 Quarter 2, 3 & 4	Work to be carried out on sites, 2, 3, 5 and 6	Equipment in place and monitoring being carried out on all programmed sites.
<p>Comments Water monitoring is being carried out on Site 2-Garrane, which is a small site (17.9 ha), using the grab sampling method. Monitoring on sites 3, 5 and 6, which are 3 of the largest sites in the project, is being carried out by the use of autosamplers which have been purchased for €27,330. This amount has been capitalised and will be charged to the project over the four years. For a report on this action see Appendix 4 – Water monitoring report.</p>			

E. PUBLIC AWARENESS AND DISSEMINATION OF RESULTS			
Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed to Date
E1 Land manager training Course	Year 1 Quarter 4	1 Training Course per Year	1 Course held in two modules
<p>Comments</p> <p>The purpose of this action is to disseminate the skills and experience needed to restore bogland and to promote awareness and understanding of the Life Project. 16 Coillte managers attended module 1 of the land managers training course in the East Mayo Forest Management Unit (FMU) in Quarter 2 of Year 1. A further course was held in Quarter 4 of Year 1 in the Connemarra FMU, participants here included, Coillte, The National Parks and Wildlife, Forest Service, environmental groups and local community members. These courses included presentations on the project, site managers experience to date and both groups went on site visits. A bog walk was also part of the second module. A summary containing the objectives and actions of the project was distributed at module 2, and a “Site Managers Booklet” (see Appendix 5) was prepared and distributed at module 1. 43 people attended these courses and a number of people who were invited could not attend.</p> <p>Based on experience and knowledge gained to date and work progressing on the project by the Public Relations/Administration manager, it is planned to increase the number of managers attending such training courses in Year 2.</p>			
E2 Project website	Year 1 Quarter 1, 2, 3 and 4	Website to be in place	Website on line and being added to: Website address – http://www.irishbogrestorationproject.ie
<p>Comments</p> <p>The Website is operational, and will be added to over the duration of the project. As the launch of the project will take place in the autumn, it was agreed to defer the formal launch of the website to coincide with the official launch of the project. It is now planned to officially launch the website and project together to gain maximum coverage of both.</p>			

E. PUBLIC AWARENESS AND DISSEMINATION OF RESULTS			
Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed to Date
E3 Project information brochure	Year 1 Quarter 2, 3 and 4	Brochure to be prepared and distributed to public arena	Final draft completed, going to print (See Appendix 6)
Comments The final draft of the brochure is being printed in Quarter 1 of Year 2. It is planned to distribute this project brochure to the general public, relevant public authorities and academic institutions. Completion of this action was deferred due to project management agreement that we distribute the brochure to coincide with the launch of the project and website.			
E4 Project results booklet	Not Applicable	Not Applicable	Not Applicable in Year 1
E5 Annual bog walk	Not Applicable	Not Applicable	Not Applicable in Year 1
E6 Media publicity campaign	Year 1 Quarter 1, 2, 3 and 4	Ongoing throughout project	See comments section and Appendix 7.
Comments Work in this area ranges from objectives and actions of the project being disseminated at Coillte District meetings, as well as Coillte social and environmental panel meetings. Also a number of newspaper articles have been placed, together with radio interviews and articles inserted into the <i>Coillte Contact</i> in-house magazine. The background to the project has been placed on the Coillte Website also. The Minister of State at the Department of Communications, Marine and Natural Resources, with responsibility for the Forest Service, will formally launch the project and the project website in the autumn. Both national and local media will be invited to cover the launch thereby heightening awareness of the project. The project brochure will be distributed on this occasion also.			

E. PUBLIC AWARENESS AND DISSEMINATION OF RESULTS			
Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed to Date
E7 Interpretative displays and boardwalks	Year 1, Quarter 4	5 Boardwalks and 5 Interpretative Signs to be erected (overall project)	Signage erected and consultation with The National Parks and Wildlife has been completed. See comments for further detail.
<p>Comments</p> <p>General signage has been erected on the demonstration sites indicating that this is a blanket bog restoration project and acknowledging EU LIFE funding.</p> <p>Site 3-Dromalohurt It is not feasible to begin this action until the felling operations have been completed. Work will commence in Quarter 2 of Year 2. See actions C1 and C3 for this site.</p> <p>Site 5-Emlaghdauroe It is not feasible to begin this action until the felling operations have been completed. This boardwalk will be constructed in Quarter 3 of Year 2.</p> <p>Site 7-Eskeragh Due to the delay in the felling and chipping operation, the construction of the boardwalk will be deferred until Quarter 3 of Year 2.</p> <p>Site 13-Croaghonagh North Delay with construction of the boardwalk on this site is due to ongoing consultations with The National Parks and Wildlife in relation to the type of boardwalk to be constructed. They favour a suspended boardwalk which would cost considerably more than the budget allows. Consultation is at an advanced stage and it is hoped that this issue will be resolved and the work on the boardwalk will begin in Quarter 1 of Year 2.</p> <p>Site 16-Slieve Blooms Following consultation with The National Parks and Wildlife, concerns were raised in relation to the planned location of the boardwalk and its proximity to a hen harrier nesting site. It was agreed to carry out a survey of the hen harrier and when findings are evaluated by the National Parks and Wildlife, they will advise us of the results. Based on the outcome, work will go ahead in Year 2.</p>			

F. OVERALL PROJECT OPERATION AND MONITORING			
Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed to Date
F1 Project management	Year 1 Quarter 1,2 3 & 4	4 Project Management Group meetings to be held	4 successful meetings, 1 held in each quarter, see further comments.
<p>Comments In October 2002, a new project manager Mr. Kevin Donnellan, was appointed. Also in October 2002, Ms. Caroline White began work as PR/Administration Manager to the project. Advance payment of €1,258,708 was received on 16th October 2002.</p> <p>Four very successful Project Management Group meetings were held in Year 1.</p> <p>In addition, project management has involved site manager training sessions. A very informative visit by some of the Project Management Group together with site managers to Liffey Head bog complex in Co. Wicklow took place. This day was organised in conjunction with the National Parks and Wildlife staff who invited the group to see the restoration work they had completed on this programme using mechanically installed peat dams and manual peat dams. This day was held in conjunction with a Site Managers meeting.</p>			
F2 Project advisory panel	Year 1 Quarter 1	Set up of Project Advisory Panel	Project Advisory Panel Set Up.
<p>Comments Successful and informative meeting of Project Advisory Panel held in Quarter 4 of Year 1 including a visit to demonstration site 5 – Emlaghadauroe, Clifden, Co. Galway. During this meeting, members of the Advisory Panel contributed useful suggestions and expressed themselves as being impressed with the way the project is progressing. The Project Management Group considered it was better to defer this meeting until some operational work was visible on site.</p>			

F. OVERALL PROJECT OPERATION AND MONITORING			
Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed to Date
F3 Project Report	Year 2 Quarter 1	1 st Progress Report to be produced	Concise report produced and sent to European Commission and external team.
Comments Report will be distributed to all members of the Project Management Group and kept on file for reference.			
F4 Procure the use of expert advice	Year 1 Quarter 1	Expert advice to be sought	Expert's report completed.
Comments Action Complete. Mr. Russell Anderson's (British Forestry Commission Research Branch) report received and utilised. Informal contact has been maintained with Mr. Anderson who has given follow up advice. See Appendix 9.			
F5 To gain a scientific understanding of points of ground water discharge 'flushes' and their surrounding ecology	Year 1 Quarter 2,3,4	Design and set up of Phase 1 of monitoring programme to be completed	Phase 1 of monitoring programme completed with work on phase 2 beginning.
Comments Please see Appendix 10.			
F6 Hydrology monitoring	Year 1 Quarter 1, 2, 3 & 4	121 Dipwells (Walrags) to be monitored	121 Dipwells (Walrags) in place and readings being taken.
Comments Readings being taken monthly and recorded. See also action C7 and Appendix 10 for operational photograph.			

F. OVERALL PROJECT OPERATION AND MONITORING			
Project Action	Scheduled Duration	Quantifiable Target [where applicable] For Year 1	Completed to Date
F7 Vegetation monitoring.	Year 1 Quarter 1	Vegetation transects to be laid down	Vegetation monitored within enclosures.
Comments This action is complete for year 1.			
F8 Aerial survey.	Not Applicable	Not Applicable	Not Applicable in Year 1
F9 Ground inventory.	Not Applicable	Not Applicable	Not Applicable in Year 1

TIME PLANNING

Action Activity in Year 1

Table Legend	=	✓ equal original time planning schedule
	=	▼ equal action partially completed for Year 1.
	=	■ equal action fully completed for Year 1.

Action Number/name	Project Year 1				Project Year 2				Project Year 3				Project Year 4			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
A. Preparatory actions, elaboration of management plans and/or action plans:																
A1 Site visit to see another LIFE sponsored project.	✓	▼	▼													
A2 Elaboration of action plan.		✓														
A3 Identify Safety Hazards and draw up a general safety plan for sites.		✓														
A4 Survey of fence lines and enclosures.		✓	✓													
A5 To produce accurate photographs of all project sites.	✓	✓														
B. Purchase/lease of land and/or rights:																
None																

Action Number/name	Calendar Year 1				Calendar Year 2				Calendar Year 3				Calendar Year 4			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
C. Non-recurring biotope management:																
C1 Fell mature trees non-commercial felling.			✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓	✓					
C2 Fell and chip conifers		✓ ▼	▼	✓ ▼	✓	✓	✓									
C3 Commercial felling.				✓ ▼	✓	✓	✓	✓								
C4 Install dams.	✓	✓	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓	✓	✓				
C5 Erect enclosures on unplanted areas and repair fences on cleared areas.			✓	✓ ▼	✓	✓										
C6 Build and repair roads onto sites for safe access and the removal of trees.		✓	▼	✓ ▼												
C7 Install dipwells.		▼	✓ ▼	✓ ■	✓	✓		✓								
D. Recurring biotope management:																
D1 Remove natural regeneration.		✓ ▼	✓ ▼	✓ ▼	✓								✓	✓	✓	✓
D2 Removal of trespassing livestock.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
D3 Measure nutrient flow from sites.	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Action Number/name	Calendar Year 1				Calendar Year 2				Calendar Year 3				Calendar Year 4			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
E. Public awareness and dissemination of results:																
E1 Land manager training course				✓ ■				✓				✓				✓
E2 Project website	✓	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
E3 Project information brochure		✓ ▼	✓ ▼	✓ ▼												
E4 Project results booklet															✓	✓
E5 Annual bog walk					✓				✓				✓			
E6 Media publicity campaign	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
E7 Interpretative displays and boardwalks	▼	▼	▼	✓ ▼				✓				✓				✓

Action Number/name	Calendar Year 1				Calendar Year 2				Calendar Year 3				Calendar Year 4			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
F. Overall project operation and monitoring:																
F1 Project management	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F2 Project advisory panel	✓			■	✓				✓				✓			
F3 Project Report					✓ ■				✓				✓			✓
F4 Procure the use of expert advice	✓ ■															
F5 To gain a scientific understanding of points of ground water discharge 'flushes' and their surrounding ecology		✓ ▼	✓ ▼	✓ ■	✓	✓										
F6 Hydrology monitoring.		✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F7 Vegetation monitoring.	✓ ▼	▼	▼	■	✓				✓				✓			✓
F8 Aerial survey.															✓	✓
F9 Ground inventory.							✓	✓								

SUMMARY OF DELIVERABLE PRODUCTS

Product	No. of Action	Deadline	Progress to end Year 1
Project Information Brochure	E3	31.10.2002	Final version has gone to print (Quarter1, Year 2). It has been decided to defer distribution to coincide with the re-scheduled formal launch of the project itself.
Safety Plan and Hazard Identification	A3	31.10.2002	Work began in October 2002, and the draft safety plan has been drawn up. Site managers will continue to work with Coillte's safety & training team to ensure that appropriate safety procedures are in place as subsequent actions commence over the duration of the project.
Produce plan accurate photographs of project sites	A5	31.10.2002	Budget proved to be seriously inadequate and timing inappropriate. Alternative, more practical, approach has been put in place within original budget – see Action Report.
Training Pack year II	E1	30.05.2003	In Module 1 each course participant received a specially prepared “Site Managers Booklet” and in Module 2 a Project Summary covering project background, objectives, specific actions and methodologies was distributed to each participant.
Study of flush areas (Report)	F5	28.11.2003	Interim report received from contractor on Phase I.
Nutrient Flow Study (Interim Report)	D3	30.10.2004	Not scheduled for Year 1.
Training Pack Year III	E1	28.05.2004	Not scheduled for Year 1.
Training Pack Year IV	E1	28.05.2005	Not scheduled for Year 1.
Aerial survey is completed	F8	30.06.2006	Not scheduled for Year 1.
Project Results Booklet	E4	31.07.2006	Not scheduled for Year 1.
Nutrient Flow Study (Final Report)	D3	31.07.2006	Not scheduled for Year 1.

ACTIVITY REPORTS FORESEEN
(Progress Report, Interim Report, Final Report)

Progress Report Year I	31.07.2003	Submitted 29.08.2003
Progress Report Year II with interim report	31.07.2004	
Progress Report Year III	31.07.2005	
Progress Report Year IV with Final Report	29.07.2006	

SUMMARY OF PROJECT MILESTONES

Milestone	No. of Action	Deadline	Progress to end Year 1
Appoint Project Director	A - F	31.01.2002	Original Project Manager (Mr Tom Kavanagh) took up a position with the Irish Forest Service and was replaced by the present Project Manager (Mr Kevin Donnellan) in October 2002.
Project Launch	E6	31.09.2002	The Minister of State at the Department of Communications, Marine and Natural Resources, with responsibility for the Forest Service, will formally launch the project and the project website in the autumn.
Project Website Launch	E2	31.03.2003	Project website http://www.irishbogrestorationproject.ie established and available on-line since June 2003. It has been decided to defer formal launch of the website to coincide with the launch of the project itself in order to gain maximum coverage of both events.
Complete ground inventory on all sites to show cleared areas	F9	31.07.2004	Not scheduled for Year 1.
All major clearance, fencing and damming work will be completed	C1:C2:C3: C4:C5	31.07.2005	Not scheduled for Year 1.
Project results disseminated	E4	31.07.2006	Not scheduled for Year 1.

Financial Summary Year 1

Category →	A (Form 16)	A (Form 16)	C (Form 18)	C (Form 18)	D (Form 19)	D (Form 19)	E (Form 20)	E (Form 20)	F (Form 21)	F (Form 21)	Total costs € Actual	Total costs € Budget	Total Variance €
Budget item ↓													
↓	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	
1. Personnel	0	4,063	14,277	87,531	14,525	26,681	31,891	47,726	59,594	65,277	120,287	231,278	110,991
2. Travel	8545	15,140	185	15,615	2,013	5,967	7,359	8,571	17,774	15,079	35,876	60,372	24,496
3. External assistance	0	5,586	53,065	198,850	0	42,200	800	0	85,862	80,423	139,727	327,059	187,332
4. Durable goods	0	0	69,346	167,063	6,832	5,227	2,500	6,349	0	635	78,678	179,274	100,596
5. Land purchase/lease	0	0	0	0	0	0	0	0	0	0	0	0	0
6. Consumable material	550	0	3,659	3,961	1800	0	3,045	4,763	0	1,270	9,054	9,994	940
7. Other costs	0	127	3682	3128	0	11,468	3,445	12,190	0	732	7,127	27,645	20,518
8. Overheads	454	2,187	7,210	44,332	1,258	15,561	2,452	4,421	16,131	16,441	27,505	82,942	55,437
TOTAL	9,549	27,103	151,424	520,480	26,428	107,104	51,492	84,020	179,361	179,857	418,254	918,564	500,310

SUMMARY FINANCIAL REPORT

Comments

- Total costs incurred in Year 1 are behind budget by €501,000 (costs arising €418,000, provisional budget €919,000)
- This shortfall against budget comprises:

Project Action	Amount (€'000s)
A: Preparatory Actions, Elaboration of Management Plans and/or Action Plans	18
C: Non-recurring Management	369
D: Recurring Biotope Management	81
E: Public Awareness & Dissemination of Results	33
	501

- Project “A” actions:
 - Further staff will visit another LIFE-funded project in Year 2.
- Project “C” actions:
 - As outlined in the detailed **REPORT BY ACTION**, the shortfall in spending relates mainly to delays that have arisen in the areas of non-commercial felling, fell and chip conifers, commercial felling and dam installation.
- Project “D” actions:
 - Removal of natural regeneration is being progressed with Coillte direct staff and will be completed in Year 2.
- Project “E”actions:
 - The project information brochure will be printed and distributed in Year 2.
 - Work is not yet completed on the interpretive signs and boardwalks.
 - The media publicity campaign will continue.
- The provisional budget outlined in Form 28 of the approved proposal (and shown in further detail by action in Forms 16 to 21) is the approved budget for the project. This shows the financial budget for the duration of the project.
- The allocation of the provisional budget to Year 1 of the project has been arrived at using the information in the provisional budget as the core financial information. Operational and/or financial information held in the time planning schedule (Form 22) and in Annexes 1 to 6 has been used to aid the phasing of this budget. The Annexes outline the envisaged timing of actions and the associated work output and cost, along with other operational detail.

- Annexes were produced for the first time in the final application submitted for the project - in the original application only Form 28 was submitted. Given the deadlines to which the Annexes were produced and the withdrawal of the proposed project partner at that time, some discrepancies exist between the detail in the Annexes and Form 28. Where inconsistencies arise, it is accepted that Form 28 is the basis of the Commission's funding approval.
- At this point it is envisaged that the overall project targets will be met within the confines of the approved provisional budget as set out in Form 28.
