

**RESTORING ACTIVE BLANKET BOG IN IRELAND**

**PROJECT No: LIFE02 NAT/IRL/8490**

**(1<sup>ST</sup> JULY 2002 – 30<sup>TH</sup> JUNE 2006)**



**3<sup>RD</sup> YEAR PROGRESS REPORT – TO END OF YEAR 3**

**COVERING PERIOD**

**1<sup>ST</sup> JULY 2002 – 30<sup>TH</sup> JUNE 2005**

**COILLTE TEORANTA**

**30TH NOVEMBER 2005**



**coillte**



**Contents**

|             |   |    |
|-------------|---|----|
| <b>I</b>    | <b>Background to the Project</b>  |    |
|             | Background.....   | 3  |
| <b>II</b>   | <b>Introduction, Project Objective, Expected Results, and Links to Other Activities</b> |    |
|             | Introduction.....   | 4  |
| <b>III</b>  | <b>Summary of Principal Achievements</b>  |    |
|             | Summary.....  | 7  |
| <b>IV</b>   | <b>Technical Report – All Relevant Actions</b>  |    |
|             | A Actions - Preparatory.....  | 9  |
|             | C Actions – Non-recurring biotope management.....                                       | 13 |
|             | D Actions – Recurring biotope management.....   | 23 |
|             | E Actions – Public awareness.....   | 25 |
|             | F Actions – Overall project operation.....  | 30 |
| <b>V</b>    | <b>Time Planning</b>  |    |
|             | Action activity at end Year 3.....  | 37 |
| <b>VI</b>   | <b>Summary of Deliverable Products</b>  |    |
|             | Summary.....  | 41 |
| <b>VII</b>  | <b>Activity Reports Foreseen</b>  |    |
|             | Progress reports.....   | 42 |
| <b>VIII</b> | <b>Summary of Project Milestones</b>  |    |
|             | Milestones.....   | 43 |
| <b>IX</b>   | <b>Financial Summary</b>  |    |
|             | Summary Financial Report.....   | 44 |

## I 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 at the end of its third year of implementation.

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.

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## **II INTRODUCTION, PROJECT OBJECTIVES, EXPECTED RESULTS, AND LINKS TO OTHER ACTIVITIES**

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 [cSAC] 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 occurs 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 UK LIFE-funded Border Mires project (LIFE98 NAT/UK/005432) are being used in this project together with advice on a range of techniques used by the Scottish Peatlands project (LIFE00/NAT/UK/007075).

This LIFE-funded restoration project is building on draft conservation management plans for the project sites, the development of which by the National Parks and Wildlife Service (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.

#### Project links with Coillte's Nature Conservation Programme

Three years working on this blanket bog conservation project have resulted in strong links being developed between the project and Coillte's nature conservation management programme.

As part of this programme, bio-diversity surveys were undertaken to select 15% of each forest management unit (FMU) for nature conservation management, 7 of which have sites in this project. These surveys were co-ordinated by the company's ecologist, and include two surveys conducted by the ecologist who serves as contract ecologist for this blanket bog project. The FMUs concerned were Connemara and North Mayo where a range of blanket bog types predominantly occur. These surveys have shown that Coillte's estate includes substantial areas of blanket bog, of which a certain percentage is within or adjoining SACs (special areas of conservation) and would be ideal for inclusion in a national programme under the new Council Regulation (EC) No 1698/2005 on support for rural development (Natura 2000 payments).

Lessons learned, and techniques used in the blanket bog project to date, have been recommended for, and are being incorporated into, forest management plans for blanket bog areas identified in these bio-diversity surveys. The primary management objective for these areas is nature conservation. The project manager and site managers are involved in this work as part of their day to day management.

Project Links with Further Education

Best practices, identified during the project to date, will form part of work on a dissertation titled “A review of methodologies used for Restoring Active Blanket Bog in the West of Ireland”. This is being prepared by a Coillte staff member studying for a B.Sc. Honours Degree in Forestry Management at the University of Central Lancashire (UK).

### III SUMMARY OF PRINCIPAL ACHIEVEMENTS

After three years working on the project, progress to date on Project LIFE02 NAT/IRL/8490 “Restoring Active Blanket Bog in Ireland” is at an advanced stage:

- All scheduled preparatory “A” actions have been completed at this point, however experience has shown that some of these actions need to continue to some extent for the duration of the project;
- All non-recurring management “C” actions have reached an advanced stage; changes were necessitated on some sites, e.g. where C2 – Felling and chipping was planned, C1 – Fell Non-Commercial proved to be the preferred treatment for the site and thus the plan was changed;
- Work done in the first three years of the project under the “C” actions included non-commercial tree felling (C1), felling and chipping (C2), commercial felling (C3), drain blocking (C4), fencing (C5), road building (C6) and installation of dipwells (C7);
- All recurring management “D” actions continued:
- Work done in the first three years of the project included removal of natural regeneration (D1), removal of trespassing livestock (D2) and measurement of nutrient flow from sites (D3);
- All public awareness “E” actions continued focusing on the aim of promoting the project’s objectives (Action E4 is not applicable until the last year of the project);
- Work done in the project’s first three years included land manager training courses held (E1), project website constructed and developed (E2), project information brochure produced and distributed (E3), bog walks held as part of land managers courses (E5), media publicity campaign (E6) (including newspaper articles – national, local, and provincial, radio and television interviews relating to the project, official launch of the project by Government Minister, the background to the project having been posted on the Coillte website ([www.Coillte.ie](http://www.Coillte.ie)), and various articles having been written and published in Coillte’s in-house magazine (*Coillte Contact*) and technical articles inserted into environmental and forestry external magazines). Boardwalks have been constructed and some of the interpretive display signage erected (E7).
- While not a requirement of the project, a Natura 2000 “Green Day” was organised and held in June 2003, June 2004 and June 2005 to promote, and inform the public about, the project, and the official launch of the project was posted on the EU website as a “Green Day” for June 2004. See Appendix 1 (Green Days listed on Euro site Website).

- All project management “F” actions continued except Action (F8) Aerial Survey which is not applicable until a later stage;
- Work done during three years of the project under the “F” actions included Project Management Group meetings (F1), Project Advisory Panel meetings (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) and preparation of ground inventory maps for inclusion in the interim report (F9).
- Good links have been made with personnel from other LIFE projects. Staff from our project visited the UK Border Mires project (LIFE98 NAT/UK/005432) in October 2002 (Year 1) and a number of staff from that project visited our project in September 2003 (Year 2). Staff from the Scottish project “Restoring active blanket bog of European importance in North Scotland” [LIFE00 NAT/UK007075] visited our sites in the West of Ireland in March 2004 (Year 2) and 6 Coillte staff and 2 NPWS staff made a return visit to that project in October 2004 (Year 3).

Further detail on all the aforementioned can be seen in the **REPORT BY ACTION** section which follows.

#### **IV TECHNICAL REPORT – ALL RELEVANT ACTIONS**

##### “A” Actions - Preparatory Actions, Elaboration of Management Plans

##### **A1: Site Visit to see another LIFE sponsored project**

##### **Scheduled Duration and main objective**

The scheduled duration of this action was Year 1, Quarter 1. The main purpose of this action was to give project staff experience of similar LIFE projects already in existence. However it was felt that it would be more beneficial to split visits by project staff over a longer period in order to see a variety of other LIFE projects. It was also recommended by the external team to develop links with the Scottish Blanket Bog project “Restoring active blanket bog of European importance in North Scotland” (LIFE00 NAT/UK/007075).

##### **Completed to date**

To date 4 project staff attended the Border Mires Project Conference (LIFE98 NAT/UK/005432) in early October 2002, and a further 6 Coillte staff and 5 staff from the National Parks and Wildlife Service visited the Border Mires project later in October 2002 (the staff from the National Parks and Wildlife were not charged to the LIFE project budget). Staff from the Border Mires Project subsequently visited our project in September 2003. Another 4 project staff attended the Restoration of Scottish Raised Bogs Project Conference (LIFE00 NAT/UK/007078) in October 2003. Our project was also visited by a group from the “Restoring active blanket bog of European importance in North Scotland” Project (LIFE00 NAT/UK/007075) in March 2004. This group included staff from the Forestry Commission Scotland, Forest Enterprise and the Royal Society for Protection of Birds, Scotland who are all partners in this project. In Year 3, 6 Coillte staff and 2 staff from the National Parks and Wildlife made a return visit to the Scottish project in October 2004. See Appendix 2 (Photograph of Visit by Scottish Life Project Staff).

##### **Comments**

To date, these visits have proved very successful for information exchange and networking. This action will continue until the budget is utilised. Some funding is set aside for project staff to attend end of project conferences on other projects as they arise.

## **A2: Elaboration of Action Plans**

### **Scheduled Duration and main objective**

The scheduled duration of this action was Year 1, Quarter 2. The main thrust of this action was consultation with stakeholders in relation to operational work on all sites. Another aspect of this action is to maintain a connection between the LIFE project and the broader initiatives under the COFORD/Coillte Research project “Regeneration Options for Forests on Western Peatland”.

### **Completed to date**

This action is now completed on all sites. However on-going consultation still continues with the National Parks and Wildlife Staff (NPWS) and other stakeholders. In addition to having a member of research branch (NPWS) specialising in blanket bog ecology on the Project Management Group (PMG), it was also agreed at one of our PMG meetings that we would invite a local NPWS ranger to each of our PMG meetings. This began in Quarter 3, Year 2. This has proven very successful and beneficial. See Appendix 1 of our 1<sup>st</sup> Progress Report (July 2003) for Consultation procedure.

### Project links with COFORD/Coillte Research Project

Coillte is co-funding a research project with COFORD (the National Council for Forestry Research and Development) entitled “Regeneration Options for Forests on Western Peatland”. This project, which began on 1<sup>st</sup> July 2004, aims to examine the implications of managing these areas in terms of their sustainability for timber production and ideally the vision for the future of these Western Peatland forests will move towards delivering multiple objectives with a strong emphasis on environmental values i.e. water protection, landscape and nature conservation. Developments to date on this research project include ongoing liaison between the COFORD/Coillte project staff and the project manager and a number of site managers of the blanket bog project. The blanket bog project contract ecologist is also currently working on a description and evaluation of vegetation on each site throughout the COFORD/Coillte project, and his observations on the blanket bog project have been taken on board in the COFORD/Coillte project as well.

### Progress on the extension of cSAC designation where required by the end of the project

The NPWS commitment is that the areas covered by the project proposal adjacent to the current cSACs will be incorporated into each relevant pSCI by the end of the project (unless the restoration project has clearly failed). By definition, this cannot take place until near the end of the project. However, Coillte has had ongoing contact with NPWS on this issue and it is proposed to provide NPWS with digitised maps of the areas to be added to cSACs for extension of designation before April 2006.

## **Comments**

Our consultation activity will be an integral part of our continuing work on each site during the lifetime of the project and therefore this part of the action will continue on an ongoing basis. This action has been most useful in developing good working relationships at local level between Coillte and the National Parks and Wildlife Service on blanket bog restoration. Our links with the COFORD/Coillte project will also continue.

### **A3: Identify Safety Hazards and draw up a general safety plan for all sites**

#### **Scheduled Duration and main objective**

The scheduled duration of this action was Year 1, Quarter 2. The requirement of this action was for Safety plans to be drawn up, hazard identification risk assessment forms (HIRA) to be completed for sites.

#### **Completed to date**

Safety plans have been drawn up, HIRA forms have been completed for all operational work to date and safety regulations are adhered to on all sites. See Appendix 3 of our Interim (2<sup>nd</sup>) Progress Report (July 2004) for sample HIRA form.

## **Comments**

Safety is an extremely important issue on our sites and this action will be adhered to over the duration of the project. All site managers and project personnel will continue to work together with Coillte's safety and training team to ensure that appropriate safety procedures are in place on all sites.

### **A4: Survey of fence lines and enclosures**

#### **Scheduled Duration**

The scheduled duration of this action was Year 1, Quarters 2 and 3. Survey work was scheduled to be completed on sites 3 (Dromalonnurt), 5 (Emlaghdauroe) and 6 (Bellaveeny) in order to protect the unplanted land.

#### **Completed to date**

Following a review of programmes for these sites, it was agreed that no survey work was necessary on Site 3 (Dromalonnurt), Site 5 (Emlaghdauroe) and Site 6 (Bellaveeny). Agreement had been reached on undefined boundaries. Survey work was necessary on Site 13 (Croaghonagh North) due to issues in relation to undefined boundaries which arose on this site.

## **Comments**

Survey work is now complete on all sites where it was required, this action is now complete.

### **A5: To produce plan accurate photographs of all project sites**

#### **Scheduled Duration and main objective**

The scheduled duration of this action was Year 1, Quarters 1 and 2. All sites were to be surveyed to determine levels for blocking drains. However, as detailed in our 1<sup>st</sup> Progress Report (July 2003), it became apparent, from discussion with Coillte engineering staff and external contractors, that the agreed budget was insufficient to complete this action as originally set out. We therefore devised an alternative method to achieve this action which is outlined under “Comments” below.

#### **Completed to date**

The identification of outfalls, which gives a good indication of levels and facilitates planning of the drain blocking action, has been achieved by an alternative method (detailed below) at a number of sites where drain blocking has been completed following tree clearance. (See action C4 – Drain Blocking).

## **Comments**

In order to counteract the budgetary problem and to progress work, a decision was taken to purchase an engineer’s automatic level. During Year 1, A field day was held at Site 5 (Emlaghdauroe), at which a Coillte engineer carried out a levelling survey training course utilising this level. This course was attended by the project manager, site manager and a number of key project site staff. A practical approach was taken towards achieving this action considering there was a wide and varied range of topography across the project sites. The following steps summarise the methodology used to date to determine the levels for drain blocking on project sites.

1. When the ground was cleared a visual assessment of each site was undertaken to determine the water outflows, intensity of blocking required, depths of peat, and slopes.
2. On flat sites the agreed procedure was to block drains at a range of approximately 6.5 – 20m apart. The exact position of the dams depended on a number of local factors, such as tree roots, and small depressions or rises along the ditch profile.
3. Some of the sites are steep sloping and it is not practical or beneficial to block drains on these areas at all.
4. On sites where areas of peat depths are less than 1 metre, it is not practical or beneficial to block drains on these areas either.
5. On sites which have parts both sloping and some parts flat, viewing of the site would indicate the distances for drain blocks to be installed.

In addition to the above steps, we also sought the professional services of a Consultant Engineer who has an extensive forestry background to complete a drainage survey at one of our largest sites – Site No. 9 (Owenirragh) - on the work that we had completed there. This report has confirmed the suitability of the approach outlined above. The Consultant Engineer has made a number of recommendations which have been taken on board. See Appendix 4 of our Interim (2<sup>nd</sup>) Progress Report (July 2004) for Engineer's Report.

#### “C” Actions - Non-Recurring Management

#### **C1: Fell mature trees non-commercial felling**

##### **Scheduled Duration**

The scheduled duration of this action was, Year 1, Quarters 3 and 4, Year 2, all Quarters, and Year 3 Quarters 1-3.

##### **Completed to date**

The following table outlines progress to date against revised programme for each site which required this action. The revised programme was communicated in our letter of April 16<sup>th</sup> 2004 and accepted in the Commission's letter of 18<sup>th</sup> February 2005.

#### **Action C1 – Fell mature trees non-commercial felling**

| Site No. | Site Name     | Detail of action | Revised area for Action (Ha) | Area complete to 30/06/05 (Ha) | Balance to complete (Ha) | Expected Completion date |
|----------|---------------|------------------|------------------------------|--------------------------------|--------------------------|--------------------------|
| 2        | Garrane       | Fell to Waste    | 17.5                         | 17.5                           | 0.0                      | Complete                 |
| 3        | Dromalohurt   | Fell/Windrow     | 28.3                         | 28.3                           | 0.0                      | Complete                 |
| 4        | Pollagoona    | Fell to Waste    | 11.6                         | 11.6                           | 0.0                      | Complete                 |
| 5        | Emlaghdauroe  | Fell to Waste    | 10.0                         | 7.6                            | 0.0                      | Complete                 |
| 6        | Bellaveeny    | Fell/Windrow     | 126.0                        | 113                            | 13.0                     | 06/06                    |
| 7        | Eskeragh 1    | Fell to Waste    | 10.3                         | 12.3                           | 0.0                      | Complete                 |
| 8        | Eskeragh 2    | Fell/Windrow     | 17.8                         | 17.8                           | 0.0                      | Complete                 |
| 9        | Owenirragh    | Fell/Windrow     | 107.0                        | 107.0                          | 0.0                      | Complete                 |
| 10       | Glencullin    | No Program       | 0.0                          | 0.0                            | 0.0                      | No Program               |
| 11       | Shanvolahan   | Fell/Windrow     | 25.8                         | 23.0                           | 2.8                      | 06/06                    |
| 13       | Croaghonagh   | No Program       | 0.0                          | 0.0                            | 0.0                      | No Program               |
| 14       | Carrick Barr  | Fell to Waste    | 12.1                         | 11.65                          | 0.45                     | 06/06                    |
| 15       | Sessuegilroy  | Fell/Windrow     | 8.5                          | 3.8                            | 4.7                      | 06/06                    |
| 16       | Slieve Blooms | No Program       | 0.0                          | 0.0                            | 0.0                      | No Program               |
|          | <b>Total</b>  |                  | <b>374.9</b>                 | <b>353.55</b>                  | <b>20.95</b>             |                          |

## Comments

Site 5 Emlaghdauroe – While there was no non-commercial felling programme for this site originally, a programme of 10 ha of non-harvestable material became apparent during the 1<sup>st</sup> phase of the harvesting operation and was subsequently recorded as such in the revised programme. The material in this 10 ha ranged from very poor growing lodgepole pine to some possibly harvestable material. However during the 2<sup>nd</sup> phase of the harvesting operation, the outturn for the area of non-commercial felling was only 7.6 ha and the balance of 2.4 was felled commercially under action C3.

Site 6 Bellaveeny – The balance of this lightly stocked area was to be felled to waste by the 2<sup>nd</sup> Quarter of Year 3, however on further evaluation we will treat this area when we are carrying out regeneration removal in the last Quarter, Year 4.

Site 7 Eskeragh 1 – While we reported an area of 10.3 completed by June 2004, a further 2 ha which were programmed under the fell and chip action (C2), were eventually felled under Action C1, – see fell and chip table (C2).

Overall, this action is making excellent progress, with over 353 ha (94%) completed by the end of Year 3.

**C2: Fell and chip conifers****Scheduled Duration**

The scheduled duration of this action was Year 1, Quarter 2 and Quarter 4, and Year 2, Quarters. 1-3.

**Completed to date**

The following table outlines progress to date against revised programme for each site which required this action. The revised programme was communicated in our letter of April 16<sup>th</sup> 2004 and accepted in the Commission's letter of 18<sup>th</sup> February 2005.

**Action C2 – Fell and chip conifers**

| Site No. | Site Name     | Detail of action | Revised area for Action (Ha) | Area complete to 30/06/05 (Ha) | Balance to complete (Ha) | Expected completion date |
|----------|---------------|------------------|------------------------------|--------------------------------|--------------------------|--------------------------|
| 2        | Garrane       | No Program       | 0.00                         | 0.00                           | 0.0                      | No Program               |
| 3        | Dromalohurt   | No Program       | 0.00                         | 0.00                           | 0.0                      | No Program               |
| 4        | Pollagoona    | No Program       | 0.00                         | 0.00                           | 0.0                      | No Program               |
| 5        | Emlaghdauroe  | Fell and chip    | 0.17                         | 0.17                           | 0.0                      | Complete                 |
| 6        | Bellaveeny    | No Program       | 0.00                         | 0.00                           | 0.0                      | No Program               |
| 7        | Eskeragh 1    | Fell and chip    | 2.00                         | 0.00                           | **0.0                    | Fell to Waste            |
| 8        | Eskeragh 2    | Fell and chip    | 8.00                         | 8.00                           | 0.0                      | Complete                 |
| 9        | Owenirragh    | No Program       | 0.00                         | 0.00                           | 0.0                      | No Program               |
| 10       | Glencullin    | No Program       | 0.00                         | 0.00                           | 0.0                      | No Program               |
| 11       | Shanvolahan   | No Program       | 0.00                         | 0.00                           | 0.0                      | No Program               |
| 13       | Croaghonagh   | No Program       | 0.00                         | 0.00                           | 0.0                      | No Program               |
| 14       | Carrick Barr  | No Program       | 0.00                         | 0.00                           | 0.0                      | No Program               |
| 15       | Sessuegilroy  | No Program       | 0.00                         | 0.00                           | 0.0                      | No Program               |
| 16       | Slieve Blooms | No Program       | 0.00                         | 0.00                           | 0.0                      | No Program               |
|          | <b>Total</b>  |                  | <b>10.17</b>                 | <b>8.17</b>                    | <b>0.0</b>               |                          |

**Comments**

Issues in relation to sites which were originally envisaged to be felled and chipped were communicated in our letter of April 16<sup>th</sup> 2004 to the Commission. The work already completed under this action took place in the initial stages of the project.

\*\*As explained previously, it was envisaged that the 2 ha programmed under Site 7 Eskeragh 1 would be completed under this action for demonstration purposes. However, wet ground conditions made the site inaccessible to the chipping contractor and this small area had to be completed under the fell to waste action (C1).

**C3: Commercial Felling****Scheduled Duration:**

The scheduled duration of this action was Year 1, Quarter 4, and Year 2, all Quarters.

**Completed to date**

The following table outlines progress to date against revised programme for each site which required this action. The revised programme was communicated in our letter of April 16<sup>th</sup> 2004 and accepted in the Commission's letter of 18<sup>th</sup> February 2005.

**Action C3 – Commercial felling**

| Site No. | Site Name     | Detail of action | Revised area for Action (Ha) | Area complete to 30/06/05 (Ha) | Balance to complete (Ha) | Expected completion date |
|----------|---------------|------------------|------------------------------|--------------------------------|--------------------------|--------------------------|
| 2        | Garrane       | Fell/Extract     | 0.0                          | 0.0                            | 0.0                      | No Program               |
| 3        | Dromalohurt   | Fell/Extract     | 0.0                          | 0.0                            | 0.0                      | No Program               |
| 4        | Pollagoona    | No Program       | 0.0                          | 0.0                            | 0.0                      | No Program               |
| 5        | Emlaghdauroe  | Fell/Extract     | 62.0                         | *64.4                          | 0.0                      | Complete                 |
| 6        | Bellaveeny    | No Program       | 0.0                          | 0.0                            | 0.0                      | No Program               |
| 7        | Eskeragh 1    | No Program       | 0.0                          | 0.0                            | 0.0                      | No Program               |
| 8        | Eskeragh 2    | No Program       | 0.0                          | 0.0                            | 0.0                      | No Program               |
| 9        | Owenirragh    | No Program       | 0.0                          | 0.0                            | 0.0                      | No Program               |
| 10       | Glencullin    | No Program       | 0.0                          | 0.0                            | 0.0                      | No Program               |
| 11       | Shanvolahan   | Fell/Extract     | 41.0                         | 36.0                           | 5.00                     | 03/06                    |
| 13       | Croaghonagh   | No Program       | 0.0                          | 0.0                            | 0.0                      | No Program               |
| 14       | Carrick Barr  | No Program       | 0.00                         | 0.0                            | 0.0                      | No Program               |
| 15       | Sessuegilroy  | Fell/Extract     | 7.1                          | 7.1                            | 0.0                      | Complete                 |
| 16       | Slieve Blooms | No Program       | 0.0                          | 0.0                            | 0.0                      | No Program               |
|          | <b>Total</b>  |                  | <b>110.1</b>                 | <b>107.5</b>                   | <b>5</b>                 |                          |

**Comments**

\*Site 5 (Emlaghdauroe) – additional 2.4 ha transferred from Action C1.

This action has made excellent progress, with an area of 107.5 ha (97%) complete by the end of Year 3. There is a balance of 5 ha commercial felling to be completed at Site 11 (Shanvolahan). This will be done by the end of the 2<sup>nd</sup> quarter of Year 4.

**C4: Install Dams****Scheduled Duration**

The Scheduled duration of this action at half way stage was Year 1, all Quarters, Year 2, all Quarters and Year 3, all Quarters.

**Completed to date**

The following table outlines progress to date against revised programme for each site which required this action. The revised programme was communicated in our letter of April 16<sup>t</sup>, 2004 and accepted in the Commission's letter of 18<sup>th</sup> February 2005.

**Action C4 – Install dams**

| Site No. | Site Name     | Detail of Action | Revised area for Action (Ha) | Area complete to 30/06/05 (Ha) | No. dams installed to 30/06/05 | Balance to complete (Ha) | Expected completion date |
|----------|---------------|------------------|------------------------------|--------------------------------|--------------------------------|--------------------------|--------------------------|
| 2        | Garrane       | Install dams     | 17.5                         | 17.5                           | 1372                           | 0.00                     | Complete                 |
| 3        | Dromalohurt   | Install dams     | 28.3                         | 28.3                           | 3328                           | 0.00                     | Complete                 |
| 4        | Pollagoona    | Install dams     | 12.03                        | 12.03                          | 1101                           | 0.00                     | Complete                 |
| 5        | Emlaghdauroe  | Install dams     | 72.17                        | 56.0                           | 14900                          | 16.17                    | 03/06                    |
| 6        | Bellaveeny    | Install dams     | 126.0                        | 100.8                          | 15019                          | 25.2                     | 03/06                    |
| 7        | Eskeragh 1    | Install dams     | 12.3                         | 10.3                           | 823                            | 2.0                      | 03/06                    |
| 8        | Eskeragh 2    | Install dams     | 25.8                         | 25.8                           | 3200                           | 0.00                     | Complete                 |
| 9        | Owenirragh    | Install dams     | 107.0                        | 107.0                          | 5173                           | 0.00                     | Complete                 |
| 10       | Glencullin    | No Program       | 0.0                          | 0.0                            | 0                              | 0.0                      | No Program               |
| 11       | Shanvolahan   | Install dams     | 66.2                         | 25.0                           | 1012                           | 41.2                     | 06/06                    |
| 13       | Croaghonagh   | Install dams     | 33.0                         | 33.00                          | 1770                           | 0.00                     | Complete                 |
| 14       | Carrick Barr  | Install dams     | 12.1                         | 12.1                           | 604                            | 0.00                     | Complete                 |
| 15       | Sessuegilroy  | Install dams     | 15.6                         | 1.7                            | 420                            | 13.9                     | 03/06                    |
| 16       | Slieve Blooms | Install dams     | 252.0                        | 184.0                          | 1040                           | 68.0                     | 03/06                    |
|          | <b>Total</b>  |                  | <b>780</b>                   | <b>613.53</b>                  | <b>49762</b>                   | <b>166.47</b>            |                          |

**Comments**

Work in relation to this action is completed on 7 sites, and is ongoing on the remaining sites. On sites that have been completed dams will be monitored to measure success of operation and any necessary remedial action will be carried out during year four.

**Action C5: Erect/Repair Fences**

**Scheduled Duration**

The scheduled duration of this action was Year 1, Quarters 3 and 4, and Year 2, Quarters 1 and 2. The original purpose of this action was to erect 12.75km of new fence and 21.5km of fence repair to be completed; however, a revised programme was later submitted.

**Completed to date**

The following table outlines progress to date against revised programme for each site which required this action. The revised programme was communicated in our letter of April 16<sup>th</sup> 2004.

**Action C5 – Fencing**

| Site No. | Site Name     | Detail of Action | Revised area for Action (Ha) | Revised Metres of fence to be erected | Area complete to 30/06/05 (Ha) | Metres of fence erected to 30/06/05 | Balance to complete (Ha) | Balance metres of fence to erect | Expected completion date |
|----------|---------------|------------------|------------------------------|---------------------------------------|--------------------------------|-------------------------------------|--------------------------|----------------------------------|--------------------------|
|          |               |                  |                              |                                       |                                |                                     |                          |                                  |                          |
| 2        | Garrane       | Erect fences     | 17.9                         | 2000                                  | 17.9                           | 2000                                | 0.0                      | 0                                | Complete                 |
| 3        | Dromalohurt   | Erect fences     | 28.3                         | 3000                                  | 28.3                           | 3000                                | 0.0                      | 0                                | Complete                 |
| 4        | Pollagoona    | No Program       | 0.0                          | 0                                     | 0.0                            | 0                                   | 0.0                      | 0                                | No Program               |
| 5        | Emlaghdauroe  | Erect fences     | 71.0                         | 4700                                  | 71.0                           | 4640                                | 0.0                      | 0                                | Complete                 |
| 6        | Bellaveeny    | Erect fences     | 165.0                        | 5775                                  | 137                            | 6830                                | 0.0                      | 0                                | Complete                 |
| 7        | Eskeragh 1    | Erect fences     | 12.3                         | 1500                                  | 12.3                           | 1500                                | 0.0                      | 0                                | Complete                 |
| 8        | Eskeragh 2    | Erect fences     | 28.3                         | 2450                                  | 28.3                           | 2450                                | 0.0                      | 0                                | Complete                 |
| 9        | Owenirragh    | Erect fences     | 107.0                        | 3795                                  | 166                            | 4725                                | 0.0                      | 0                                | Complete                 |
| 10       | Glencullin    | Erect fences     | 28.6                         | 2690                                  | 28.6                           | 2690                                | 0.0                      | 0                                | Complete                 |
| 11       | Shanvolahan   | Erect fences     | 64.0                         | 2240                                  | 25.0                           | 1140                                | 39.0                     | 1100                             | 03/06                    |
| 13       | Croaghonagh   | No Program       | 33.0                         | 1155                                  | 33.0                           | 1155                                | 0.0                      | 0                                | Complete                 |
| 14       | Carrick Barr  | No Program       | 0.0                          | 0                                     | 0.0                            | 0                                   | 0.0                      | 0                                | No Program               |
| 15       | Sessuegilroy  | No Program       | 0.0                          | 0                                     | 0.0                            | 0                                   | 0.0                      | 0                                | No Program               |
| 16       | Slieve Blooms | No Program       | 0.0                          | 0                                     | 0.0                            | 0                                   | 0.0                      | 0                                | No Program               |
|          | <b>Total</b>  |                  | <b>555.4</b>                 | <b>29305</b>                          | <b>547.4</b>                   | <b>30130</b>                        | <b>39.0</b>              | <b>1100</b>                      |                          |

## Comments

Apart from Site 11–Shanvolahan, fencing is complete on all sites which had a programme; 5 sites had no programme originally but a programme was subsequently necessary at site 13 (see note below).

Site 6-Bellaveeney – As the fencing repairs element of the work could not be forecast with absolute accuracy, 1,055m more than envisaged in the revised target were needed.

Site 9-Owenirragh had a plan of 107 ha reflecting the felling target area. However this site required the entire area of 166 ha to be fenced to protect the unplanted area from overgrazing and this ultimately required 930m more than envisaged in the revised target. The need to fence the entire site was accepted in the Commission's letter of 18<sup>th</sup> February 2005.

**Note:** The targets for fencing in some cases do not reflect the entire site area which was in the original project submission. After evaluation of the sites, in some cases it would not have been practical to fence areas due to elevation, landscape and access. On one particular site, no. 13 – Croaghonagh, the original project submission did not include fencing for this site. However, the adjoining land has changed land use to grazing, and it proved necessary to fence this site. This necessitated a programme be put in place for this site in order to conserve the bog. It is difficult to forecast fencing requirements with absolute accuracy until close to the time when the work actually takes place and the revised target of 29,305 metres is considerably less than the 34,250 metres in the original approved application – though also slightly less than the 31,230 metres now forecast for end of project.

**C6: Build and repair roads onto sites for safe access and the removal of trees****Scheduled Duration and main objective**

The scheduled duration of this action was Year 1, Quarters 2 and 4. A total of 500m of new road were to be constructed plus 1,375m of road repairs (as per Annex 6 to the original approved application) were to be carried out. The main objectives of this action were to facilitate safe access and the removal of felled trees.

**Completed to date**

The following table outlines progress to date against revised programme for each site which required this action. The revised programme was communicated in our letter of April 16<sup>th</sup> 2004.

**Action C6 – Build/Repair Roads**

| Site No. | Site Name     | Detail of action | Revised metres for Action | Metres complete to 30/06/05 | Balance to complete (metres) | Expected completion date |
|----------|---------------|------------------|---------------------------|-----------------------------|------------------------------|--------------------------|
| 2        | Garrane       | Build/Repair     | 0                         | 0                           | 0                            | Road not required        |
| 3        | Dromalohurt   | Car Park Access  | 0                         | 0                           | 0                            | Complete (Car Park only) |
| 4        | Pollagoona    | No Program       | 0                         | 0                           | 0                            | No Program               |
| 5        | Emlaghdauroe  | New Road         | 230                       | 230                         | 0                            | Complete                 |
| 6        | Bellaveeny    | Repair           | 1800                      | 1800                        | 0                            | Complete                 |
| 7        | Eskeragh 1    | Car Park Access  | 0                         | 0                           | 0                            | Complete (Car Park only) |
| 8        | Eskeragh 2    | New Road         | 80                        | 80                          | 0                            | Complete                 |
| 9        | Owenirragh    | No Program       | 0                         | 0                           | 0                            | No Program               |
| 10       | Glencullin    | No Program       | 0                         | 0                           | 0                            | No Program               |
| 11       | Shanvolahan   | New Road         | 750                       | 950                         | 0                            | Complete                 |
| 13       | Croaghonagh   | Car Park Access  | 0                         | 0                           | 0                            | Complete (Lay-by only)   |
| 14       | Carrick Barr  | No Program       | 0                         | 0                           | 0                            | No Program               |
| 15       | Sessuegilroy  | Repair           | 1500                      | 1500                        | 0                            | Complete                 |
| 16       | Slieve Blooms | Car Park Access  | 0                         | 0                           | 0                            | Complete (Car Park only) |
|          | <b>Total</b>  |                  | <b>4360</b>               | <b>4560</b>                 | <b>0</b>                     |                          |

**Comments**

This action is complete.

We are 200 metres over the revised target. On Site 11 (Shanvolahan) it was necessary to upgrade the access road to the property to facilitate timber removal.

The original action foresaw 500m of new road and 1,375m of road repairs (as per Annex 6) - giving an original programme of 1,875m in total. Under the revised target submitted on April 16<sup>th</sup> 2004, this total rose to 4,360m and finally to 4,560m (due to an extra 200m needed at Site 11) – comprising 1,260m of new road and 3,300m of repairs. Apart from the construction of car parks at 4 sites (which have not been recorded in linear metres), this action took place at 5 sites only and the revised targets are explained as follows:

Site 5-Emlaghdauroe increased from 100m of new road to 230m of new road because, after consultation with NPWS and the Western Regional Fisheries Board, it was necessary to increase the roading requirement in order to lessen the impact of siltation from the clearfelling operations on the nearby streams.

Site 6-Bellaveeny increased from 700m of repairs to 1,800m of repairs because two routes were repaired to facilitate access for workers to carry out the project actions on this very large site and as a mitigation measure to lessen the environmental impact.

Site 8-Eskeragh 2 increased from 50m of new road to 80m of new road to facilitate access of machinery and provision of turning facilities.

Site 11-Shanvolahan increased from 300m of new road to 950m of new road because it proved necessary to upgrade the access road to facilitate the removal of felled trees.

Site 15-Sessuegilroy increased from 500m of repairs to 1,500m of repairs to repair the length of road necessary for access to the site.

Note: 50m of new road programmed for Site 7 and 175m of repairs programmed for Site 2 were not needed. The apparently lengthy repairs at Sites 6 and 15 reflect the full lengths of the roads which have been recorded but the repairs only took place on the areas in need – accordingly, the total cost for these two sites was minimal.

#### **C7: Install Dipwells**

##### **Scheduled Duration and main objective**

The schedule duration for this action was Year 1, Quarters 3 and 4 and Year 2, Quarters 1, 2 and 4. The installation of 121 Dipwells (Walrags) was scheduled to be completed during the 1<sup>st</sup> two years. These Walrags operate mechanically and give maximum and minimum readings for water levels.

##### **Completed to date**

The following table outlines progress to date against revised programme for each site which required this action. The revised programme was communicated in our letter of April 16<sup>th</sup> 2004 and accepted in the Commission's letter of 18<sup>th</sup> February 2005.

**Action C7 – Install dipwells**

| Site No. | Site Name     | Detail of action | Complete to 30/06/05 (No.) |
|----------|---------------|------------------|----------------------------|
| 2        | Garrane       | Install dipwell  | 10                         |
| 3        | Dromalohurt   | Install dipwell  | 8                          |
| 4        | Pollagoona    | Install dipwell  | 10                         |
| 5        | Emlaghdauroe  | Install dipwell  | 9                          |
| 6        | Bellaveeny    | Install dipwell  | 8                          |
| 7        | Eskeragh 1    | Install dipwell  | 3                          |
| 8        | Eskeragh 2    | Install dipwell  | 7                          |
| 9        | Owenirragh    | Install dipwell  | 12                         |
| 10       | Glencullin    | Install dipwell  | 0                          |
| 11       | Shanvolahan   | Install dipwell  | 0                          |
| 13       | Croaghonagh   | Install dipwell  | 12                         |
| 14       | Carrick Barr  | Install dipwell  | 12                         |
| 15       | Sessuegilroy  | Install dipwell  | 7                          |
| 16       | Slieve Blooms | Install dipwell  | 0                          |
|          | <b>Total</b>  |                  | <b>98</b>                  |

**Comments**

This action is complete.

It proved unnecessary to install dipwells on 3 sites. On Site 10 (Glencullin) – due to non requirement of rewetting measures; please refer to Russell Anderson Report – Appendix 8, 1<sup>st</sup> Project Report (July 2003). On Site 11 (Shanvolahan) - due to research action F5, “To gain a scientific understanding of points of ground water discharge ‘flushes’ and their surrounding ecology”, which encompasses water level readings on site. On site 16 (Slieve Blooms) where re-wetting measures were only planned along the edge of each sub site.

**“D” Actions – Recurring biotope management****D1: Remove natural regeneration****Scheduled Duration and main objective**

The schedule duration of this action was Year 1, Quarters 2, 3 and 4 and Year 2, Quarter 1. [It is also scheduled for Year 4 , all Quarters.] This action will prevent the bog-land from drying out and increase the rate of recolonisation by bog species.

**Completed to date**

| Site No. | Site Name     | Detail of action | Revised Target for Action (No.) | Complete to 30/06/05 (No.) |
|----------|---------------|------------------|---------------------------------|----------------------------|
|          |               |                  |                                 |                            |
| 2        | Garrane       | Remove regen     |                                 | 3.5                        |
| 3        | Dromalohurt   | Remove regen     |                                 | 20.0                       |
| 4        | Pollagoona    | Remove regen     |                                 | 0.0                        |
| 5        | Emlaghdauroe  | Remove regen     |                                 | 17.0                       |
| 6        | Bellaveeny    | Remove regen     |                                 | 0.0                        |
| 7        | Eskeragh 1    | Remove regen     |                                 | 0.0                        |
| 8        | Eskeragh 2    | Remove regen     |                                 | 0.0                        |
| 9        | Owenirragh    | Remove regen     |                                 | 0.0                        |
| 10       | Glencullin    | No Program       | 0                               | 0.0                        |
| 11       | Shanvolahan   | Remove regen     |                                 | 0.0                        |
| 13       | Croaghonagh   | No Program       | 0                               | 0.0                        |
| 14       | Carrick Barr  | No Program       | 0                               | 0.0                        |
| 15       | Sessuegilroy  | No Program       | 0                               | 0.0                        |
| 16       | Slieve Blooms | Remove regen     | 252                             | 186                        |
|          | <b>Total</b>  |                  | <b>252</b>                      | <b>226.5</b>               |

**Comments**

This action will vary from site to site depending on the strike of the re-generating conifers (which cannot be predicted with any accuracy) and will be carried out as the need arises mostly in the final year of the project. It will be monitored closely on all sites.

**D2: Removal of trespassing livestock****Scheduled Duration and main objective**

The scheduled duration of this action at this point is Year 1, 2 & 3, all Quarters. This action will prevent large numbers of livestock trespassing on the project area and thus seriously inhibiting the recolonisation of bog species.

**Completed to date**

On two sites a number of hours/lifts have been recorded, this action will take place on sites on an "as required" basis (which cannot be predicted with any accuracy).

**Comments**

Site managers continue to monitor this operation on a day to day basis.

**Action D3: Measure nutrient flow from sites**

**Scheduled Duration and main objective**

The scheduled duration of this action at this stage is Year 1, 2 & 3, all Quarters. This action will monitor the effects of the restoration project on water quality.

**Completed to date**

Site managers together with Coillte research staff have continued to take water samples on a monthly basis. A report outlining data to date can be viewed at Appendix 3 (Water Monitoring Report).

**Comments**

The data compiled under this action are feeding into initiatives examining how forests on deep peats are managed and will be utilised into the future for the purposes of Coillte's Biodiversity Programme as well as being incorporated into the Coillte/COFORD-funded study where water monitoring is planned on a range of site types. Sampling is ongoing on 4 sites and a final report on data collected will be drawn up when the process is complete and will be submitted as an appendix to the Final Report on the project. The final water quality monitoring report will be sent to those LIFE projects which have networked with this project (see Action A1 above) and whose representatives have already seen the monitoring in progress and expressed a wish to see the final results. The final report will also be sent to the Forest Service and the National Parks and Wildlife Service. In addition, a summary of the final report will be placed on the project website where the availability of the full report will also be advertised.

"E" Actions – Public awareness and dissemination of results

**E1: Land manager training course**

**Scheduled Duration and main objective**

The scheduled duration of this action at this point is Year 1, 2 and 3, Quarter 4. This action is to disseminate the skills and experience needed to restore bogland and to promote awareness and understanding of the LIFE project.

**Completed to date**

In year one and two of the project, land managers days were organised and held, a cross section of people attended these courses. See Interim Report for specific details.

In year three, five land managers days were organised and held. A cross section of people from County Councils, NGOs, Coillte staff, NPWS staff and IPCC staff were invited to attend.

The first day was held at demonstration site No. 13 Croaghonagh North, Co. Donegal, in September 2004. The second day was held in October 2004, as part of an information day for the company's Raised Bog Project Staff, the group visited the demonstration site No. 7 Eskeragh and also Bellaveeney, Co. Mayo. The third information day was held at demonstration site No. 3 Dromalohurt, Co. Kerry, also in October 2004. The fourth day involved a number of the project staff visiting the IPCC (Irish Peatland Conservation Council) headquarters in Co. Kildare, in May 2005. This proved very useful for information exchange and staff from the IPCC requested to view some of our boardwalks which had been constructed. The final information day of 2005 was held at the end of May at site No. 15 Sessuegilroy, although not a demonstration site, this site proved very useful for showing a good selection of varied restoration methods. Some of those attending this day were from NPWS (National Parks & Wildlife Service) and Educational Institutions.

Overall these days proved useful, informative and enjoyable for all the participants. See Appendix 4 (Selection of photographs of various information days which took place in Year 3).

### **Comments**

As the project progresses, and the major actions are nearing completion, it is proving beneficial to bring groups to see the work at an advanced stage, when it is easier to see the recovery of vegetation and the various methodologies used, and bog walks to view the various types of flora found on the bog also form part of all training days to date. These information/training days promote the project, disseminate the experience to date and have been received with great enthusiasm.

### **E2: Project Website**

#### **Scheduled Duration and main objective**

The scheduled duration of this action is throughout the project. This action will be utilised to disseminate on-going results from the LIFE project.

#### **Completed to date**

A website has been constructed and can be visited at [www.irishbogrestorationproject.ie](http://www.irishbogrestorationproject.ie). It contains information relating to the project sites, background on bogs, links to other related websites and the project summary. The website was highlighted as an information tool at the official launch of the project held in June 2004.

The website has also been publicised through its links with a schools educational programme, the "Graduate Treasure Trail". Appendix 5 outlines explanatory information and details publicity gained from involvement with this initiative in Year 3.

## Comments

Work is ongoing on expanding and updating the project website, to show sites pre restoration and post restoration through the use of our photo library. The website will also detail our information days held, links to other relevant projects, information reports and in due course our project results. We have also linked with “aNSwer”, a North-South website of environmental research which was agreed by the North South Ministerial Council. This website was set up to establish a joint register of current environmental research projects.

### E3: Project Information Brochure

#### Scheduled Duration and main objective

The scheduled duration of this action was Year 1, Quarters 2, 3 and 4. The purpose of the brochure is to promote public awareness of the project.

#### Completed to date

The project brochure has been produced and distributed to a large number of stakeholders – a selection of stakeholders who received brochures is outlined in the following table.

| <b>List of Stakeholders</b>              |                                       |
|--|---------------------------------------|
| Environment Section                      | Clare Co. Council                     |
| ENFO – Environmental Information Service | Dublin 2                              |
| Education Officers                       | Glenveigh National Park, Co. Donegal  |
| All Coillte Staff                        | Countrywide                           |
| All National Parks & Wildlife Staff      | Countrywide                           |
| All Forest Service Staff                 | Countrywide                           |
| National and Second Level Schools        | Co. Mayo                              |
| National College of Ireland              | Sandyford Road, Dublin 15             |
| Dublin City University                   | Glasnevin, Dublin 9                   |
| Richard Watson – Director                | Marble Arch Caves, Fermanagh BT92 1EW |
| Society of Irish Foresters               | Ballintogher, Co. Sligo               |
| John McLoughlin                          | Tree Council of Ireland               |
| LIFE Raised Bog Workshop                 | Aalden, Netherlands                   |
| Ballyhaise Forestry College              | C. Cavan                              |
| Border Mires Project                     | United Kingdom                        |
| Scottish Peatlands Project               | United Kingdom                        |
| Forest Enterprise                        | United Kingdom                        |

## Comments

Over 17,000 brochures have been distributed to date, and arising from the distribution of the project brochure there have been expressions of interest from schools, non-governmental organisations as well as general queries from our stakeholders. The remaining brochures will be distributed as the project continues and as requests are made for information about the project. See Appendix 6 (Project Brochure).

**E4: Project results booklet**

**Scheduled Duration**

The scheduled duration of this action is not until Year 4, Quarter 3 and 4.

**E5: Annual bog walk**

**Scheduled Duration**

The scheduled duration of this action is Quarter 1, Year 1, 2 and 3. It will promote awareness of, and support for, the LIFE project.

**Completed to date**

Bog walks were held as part of all our land manager information days to date and other general information days which were held. A walk was also part of our “Green Day” held in Year 1, 2 and 3 of the project. The participants were shown the different flora of the bog and discussion took place concerning the different characteristics of the particular flora shown.

**Comments**

Site managers continue to promote local awareness of the project objectives and utilisation of the boardwalks at demonstration sites, which continue to be used to allow random visitors a view of the surrounding bog and restoration techniques being used.

**E6: Media Publicity Campaign**

**Scheduled duration and main objective**

The scheduled duration of this action is throughout the project. The main focus of this action is to promote public awareness of the background, objectives, actions and events of the LIFE project. A big effort has been made and continues by the Public Relations/Administration Manager to promote the project and its objectives, and to ensure that LIFE-Nature, and joint funding of the project by EU DG-Environment and Coillte is acknowledged through all forums of media publicity.

**Completed to date**

Communication of the objectives of the project through the use of the media has continued in Year 3 of the project. The main tasks completed are as follows:

- Other technical articles have been produced and published during the 3<sup>rd</sup> Year of the of the project. See Appendix 7 (Technical Article) – The local planet (a paper for sustainable living).

- General articles have been published in other external magazines and articles have been produced and published in Coillte's internal company magazine "*Coillte Contact*". See Appendix 8 (General Articles, Coillte Publication Articles) – Coillte contact, Organic guide, The Organic Centre, Annual report & accounts, Inspiring excellence, Walking world Ireland.
- Local communities, stakeholders, NGOs, staff from educational institutions, environmental groups and relevant public authorities have been targeted to attend information days, and land manager training days.
- As part of our website expansion plan, an initiative was taken to develop an e-mail bulletin (which will be operational in the 1<sup>st</sup> quarter of Year 4) to publicise our work to date and the project results when they come on stream. It was agreed that it was more prudent to establish this at Year 4 of the project, as work progresses and as results become available.
- Promotion of the project objectives, background and progress has also been achieved through the attendance of the Project Manager and PR/Administration Manager at various meetings, field days, community meetings etc. Presentations in relation to the project's objective and progress were delivered and summary handouts and brochures in relation to the project have been distributed at such events.
- The project has also made links with project manager Lorcan O'Toole (Golden Eagle LIFE Project (LIFE00NAT/IRL/007145) and with a group of wildlife rangers from the Scottish Forestry Commission. Lorcan O'Toole and the Scottish Forestry Commission staff visited site No. 13 Croaghonagh North, County Donegal on September 21<sup>st</sup> 2004, discussion on the project objectives, restoration techniques used and a bog walk took place at this event. See Appendix 9 (Picture of group visit).
- A lecturer from UCD (University College, Dublin), Mr. John Feehan and his 2<sup>nd</sup> Yr Environmental Science students visited Site No. 4 Pollagoona, County Clare in May 2005. John Feehan brought another group of students to our project demonstration site No. 7 Eskeragh in 2004. Mr Feehan and his students continue to be very interested in the project progress. See Appendix 10 (Group picture).
- Two students studying for a forestry certificate, at Ballyhaise Forestry College, Co. Cavan, spent a number of weeks doing work for the Life project, this formed part of a 4 week work experience placement from their course.

### Comments

Publicity of the project, its objectives and actions will continue, and as experience is gained on the different techniques used to complete the restoration work, we feel it will be even more interesting for our stakeholders to begin seeing results based on the work carried out to date.

### **E7: Interpretative displays and boardwalks**

#### **Scheduled Duration and main objective**

The scheduled duration of this action was Year 1, 2, 3 and 4, Quarters 4. This action will provide signage that will summarise the LIFE project generally and each individual

demonstration site particularly and will provide boardwalks at demonstration sites for safe visitor access and habitat protection.

### **Completed to date**

Consultation with the National Parks and Wildlife Service has taken place, and general signage displaying the EU LIFE logo and Coillte logo has been erected at all demonstration sites. We have erected an interpretative display sign at site No. 5 Emlaghdauroe. The balance of these signs will be erected by the end of the 4th Quarter, Year 4.

Boardwalks have been constructed at site No. 7: Eskeragh, site No. 16: Slieve Blooms, Site No. 5: Emlaghdauroe and site No. 13 Croaghonagh North. Following a site visit and discussion by the Project Management Group at site No.3: Dromalohurt, and considering an engineer's report on the construction of a modified boardwalk, it was decided, with regard to Health and Safety regulations, that it was not prudent to construct a boardwalk on this site (see Appendix 11 – Engineer's Report). National Parks and Wildlife Service agreed with this decision. However, a car park has been constructed at the site, and it is considered that the car park will suffice to achieve a focal point for our visitors.

### **Comments**

Construction of the boardwalks was not feasible on sites until major operational works such as commercial felling and felling to waste were completed.

Carparks and boardwalk completed to date at four demonstration sites, which have been used to publicise the project, its objectives and restorations techniques. Study tours, university students, foreign visitors, community groups and the general public have to date enjoyed the benefits of hearing about and viewing the project and its benefits to nature conservation.

### “F” Actions – Overall project operation and monitoring

#### **F1: Project Management**

##### **Scheduled Duration and main objective**

The scheduled duration of this action is throughout the project. The main objective of this action is to manage the project and evaluate progress in relation to its aims and objectives.

##### **Completed to date**

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.

Four successful Project Management Group (PMG) meetings were held in each project year to date (for full details of Years 1 and 2, see previous reports).

### **Year 3**

The first PMG meeting was held at site No. 3 Dromalohurt in October 2004, where the Project Management Group viewed the potential safety issue in relation to construction of a boardwalk for this site. The consensus view of the group was that it was not prudent to build a boardwalk here.

The 2<sup>nd</sup> PMG meeting was held in Coillte's Santry office in December 2004. Here the group put forward proposed sites for inclusion in our project modification request and discussion took place around the value of these sites.

The 3<sup>rd</sup> PMG meeting was held in March 2005, and discussion took place around the reply from the EU to our interim report. Decisions were taken in relation to formulating our answers to the queries from the report.

The 4<sup>th</sup> PMG meeting was held in June 2005. This meeting coincided with our Project Advisory Panel meeting and the group visited a number of sites in North Mayo.

As well as the Project Management Group present at these meetings, local site managers led the field trips and elaborated on work progress. Local NPWS field staff were also invited to these field days.

### **Comments**

PMG meetings have been productive and positive, always proceeding on the basis of consensus.

## **F2: Project Advisory Panel**

### **Scheduled Duration and main objective**

The scheduled duration of this action was Year 1, 2 and 3, Quarter 1 of each year. The panel will be available to provide technical or management advice should the project management group so request it.

### **Completed to date**

It has been found to be more useful to hold these meetings in the final quarter of each project year as there is then more to report to the advisory panel.

A successful and informative meeting of the Project Advisory Panel held in Quarter 4 of Year 1 including a visit to demonstration site No. 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.

In Year 2, a second Project Advisory Panel meeting was held in Co. Mayo. This meeting included a site visit to site No.7 (Eskeragh), the group went for a walk on the boardwalk and the site manager discussed the restoration work which has taken place on this site.

In Year 3, the Project Advisory Panel meeting was again held in Co. Mayo. A presentation was given to the group in relation to progress on the project, the group then went to visit site No. 6 Bellaveeny. Valuable discussion took place about issues such as characterising sites, influence of groundwater, depth of peat, climate, altitude and rainfall data.

### **Comments**

Day to day management decisions are made by the Project Manager, the PR/Administration Manager and the various Site Managers - with occasional input from the Chairman of the Project Management Group, the Project Accountant and the Manager, EU Affairs. The Project Management Group reviews operational progress quarterly and approves any major project decisions. The Project Advisory Panel has no executive role in the project but, as its name implies, constitutes a source of expert advice; representatives of the Forest Service, NPWS, Department of Agriculture and Food, Teagasc, the Geological Survey of Ireland and Fermanagh District Council have attended panel meetings with the Project Management Group. These Advisory Panel meetings are proving beneficial for exchange of information from individuals with specific expertise and allowing links to develop with other organisations - particularly the Forest Service (Tom Kavanagh, former Project Manager) and NPWS who are in contact with the project management team on a more regular basis than the annual Project Advisory Panel meeting. Also, Richard Watson and Conor Burns (Fermanagh District Council), who are members of the Project Advisory Panel, have invited the Blanket Bog project team to see bog restoration work which Fermanagh District Council managed and completed at Cuilcagh in 1994 with financial assistance from LIFE. Fermanagh District Council intend to carry out further bog restoration work under the Interreg IIIB programme which our team will also be able to view. This visit is planned for early Spring 2006.

See Appendix 12 (Project Management Group and Project Advisory Panel group photograph, Bellaveeny project site – June 2005).

### **F3: Project Report**

#### **Scheduled Duration and main objective**

The scheduled duration of this action is Year 2, and 3, Quarter 1, and Year 4, Quarters 1 and 4. This action is required in order to report to the European Commission on activities and progress during the project in relation to its aims and objectives.

#### **Completed to date**

Progress Report for Year 1 was produced and submitted to the European Commission and external team on 29 August 2003, and circulated to all members of the Project

Management Group. On consideration of the Commission's response to that report, a revised programme for certain actions was sent to the Commission on April 16<sup>th</sup>, 2004. This letter also requested to know the Commission's attitude in principle to the possibility of adding additional areas to the project in the event of an underspend arising in certain areas of the project budget.

Interim Report to end of Year 2 (and incorporating 2<sup>nd</sup> Progress Report) prepared during July/August 2004 and sent to the European Commission and the external team.

Progress Report for Year 3 was produced and submitted to the European Commission and external team during November 2005, and circulated to all members of the Project Management Group. Production of this report was delayed somewhat to allow for production of a very comprehensive project modification request to cater for the underspend originally flagged in the Progress Report for Year 1 (see above).

#### **Comments**

All reports submitted to the Commission are distributed to all members of the Project Management Group and kept on file for reference.

#### **F4: Procure the use of expert advice**

##### **Scheduled Duration and main objective**

The scheduled duration of this action was Year 1, Quarter 1. The project will benefit from the use of correct methodologies and restoration techniques and hence a better return on investment will be achieved.

##### **Completed to date**

Action Complete in Year 1. 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 1<sup>st</sup> Progress Report 2003 – Appendix 8

#### **Comments**

Advice has also been obtained from the Irish Peatland Conservation Council (IPCC) in relation to different types of boardwalks; they provided a report to the project on this matter.

**F5: To gain a scientific understanding of points of ground water discharge “flushes” and their surrounding ecology**

**Scheduled duration and main objective**

The scheduled duration of this action was Year 1, Quarter 2, 3 and 4, and Year 2, Quarters 1 and 2. This action, sub-contracted to Minerex, will monitor how two “flushes” beside site Nos. 7, 8 and 11 in North Mayo function and their relationship with the surrounding ecology.

**Completed to date**

Phase 1: Monitoring programme design and setup – including site survey, soil sampling, water sampling and installation of monitoring equipment has been completed.

Phase 2: Work including monthly measurement of flow, hydrochemistry and water levels and collation, plotting, and analysis has been completed.

**Comments**

A close working relationship was maintained to co-ordinate the work of Minerex with the project work planned for the site in order to lessen the potential impact that this project work may have had on the Minerex programme. This resulted in a revised start up date for the felling operation.

A final report on this action will be submitted as an appendix to the Final Report on the project. The final Minerex report will be sent to those LIFE projects which have networked with this project (see Action A1 above) and whose representatives have already seen the monitoring in progress and expressed a wish to see the final results. The final report will also be sent to the Forest Service and the National Parks and Wildlife Service. In addition, a summary of the final report will be placed on the project website where the availability of the full report will also be advertised.

**F6: Hydrology monitoring**

**Scheduled Duration and main objective**

The scheduled duration of this action was throughout the project. The objective of this action is to record changes in water levels and whether the bog is improving hydrologically.

**Completed to date**

As already outlined under action C7, dipwells have been installed on 11 sites. Readings have been taken monthly and recorded.

## **Comments**

These readings will be collated as the project progresses to provide information in relation to changes in water levels. A final report on this action will be submitted as an appendix to the Final Report on the project. The final hydrology monitoring report will be sent to those LIFE projects which have networked with this project (see Action A1 above) and whose representatives have already seen the monitoring in progress and expressed a wish to see the final results. The final report will also be sent to the Forest Service and the National Parks and Wildlife Service. In addition, a summary of the final report will be placed on the project website where the availability of the full report will also be advertised.

## **F7: Vegetation Monitoring**

### **Scheduled Duration and main objective**

The scheduled duration of this action is Quarter 1 of Year 1, 2, 3 and 4 and also Quarter 4 of Year 4. The main objective of the action is to determine through the use of vegetation transects the degree of success of the restoration project.

### **Completed to date**

Vegetation transects have been laid down on cleared areas on all sites, with an initial vegetation description carried out on site No. 16 – Slieve Blooms. It is not planned to continue a vegetation monitoring programme on this site, due to the large site area, and the minimal impact of forestry operations on this site. It is planned to continue to monitor this site for regeneration of conifer species. Appendix 13 (Vegetation Monitoring Report) outlines work completed to date on each site.

## **Comments**

Overall, the recovery of bog vegetation is very evident. Positive results can be seen on many sites to date which is encouraging. A final report on this action will be submitted as an appendix to the Final Report on the project. The final vegetation monitoring report will be sent to those LIFE projects which have networked with this project (see Action A1 above) and whose representatives have already seen the monitoring in progress and expressed a wish to see the final results. The final report will also be sent to the Forest Service and the National Parks and Wildlife Service. In addition, a summary of the final report will be placed on the project website where the availability of the full report will also be advertised.

## **F8: Aerial Survey**

### **Scheduled Duration and main objective**

The scheduled duration of this action is not until the last two quarters of Year 4.

**F9: Ground Inventory**

**Scheduled Duration and main objective**

The schedule duration of this action is Quarter 3 and 4 of Year 2 and at the end of the project. The objective of this action is to monitor the progress being made on tree removal across the project areas.

**Completed to date**

Maps were sent in 2004 as Appendix 17 to the interim report, to show what operational work had been completed at half way stage of the project. Maps showing final progress will be submitted with the final project report.

**Comments**

On completion of all peatland restoration work for all sites, the Company inventory database will be updated to take account of the project work and will include all these areas as part of Coillte's management units for nature conservation.

## V TIME PLANNING

## Action Activity at end Year 3

## Table Legend

- ✓ = original time planning schedule  
 ▼ = action continuing through specific quarters  
 ■ = action fully completed for specific year

| 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 |
| <b>A. Preparatory actions, elaboration of management plans and/or action plans:</b> |                |    |     |    |                |    |     |    |                |    |     |    |                |    |     |    |
| 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>B. Purchase/lease of land and/or rights:</b>                                     |                |    |     |    |                |    |     |    |                |    |     |    |                |    |     |    |
| None  |                |    |     |    |                |    |     |    |                |    |     |    |                |    |     |    |

| Action<br>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 |
| <b>C. Non-recurring biotope management:</b>                                    |                 |        |        |        |                 |        |        |        |                 |        |        |        |                 |    |     |    |
| C1 Fell mature trees non-commercial felling.                                   |                 |        | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ |                 |    |     |    |
| C2 Fell and chip conifers  |                 | ✓<br>▼ | ▼      | ✓<br>▼ | ✓               | ✓      | ✓      |        |                 |        |        |        | ■               |    |     |    |
| C3 Commercial felling.   |                 |        |        | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ▼               | ▼      | ▼      | ▼      |                 |    |     |    |
| C4 Install dams.   | ✓               | ✓      | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ |                 |    |     |    |
| C5 Erect enclosures on unplanted areas and repair fences on cleared areas.     |                 |        | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ▼      | ▼      | ▼               | ▼      | ▼      | ▼      |                 |    |     |    |
| C6 Build and repair roads onto sites for safe access and the removal of trees. |                 | ✓      | ▼      | ✓<br>▼ | ▼               | ▼      | ▼      | ■      |                 |        |        |        |                 |    |     |    |
| C7 Install dipwells.   |                 | ▼      | ✓<br>▼ | ✓<br>■ | ✓               | ✓      |        | ✓      |                 |        |        |        |                 |    |     |    |
| <b>D. Recurring biotope management:</b>  |                 |        |        |        |                 |        |        |        |                 |        |        |        |                 |    |     |    |
| D1 Remove natural regeneration.  |                 | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ▼      | ▼      | ▼      | ▼               | ▼      | ▼      | ▼      | ✓               | ✓  | ✓   | ✓  |
| D2 Removal of trespassing livestock.   | ✓               | ✓      | ✓      | ✓      | ✓<br>▼          | ✓<br>▼ | ✓      | ✓      | ✓               | ✓<br>▼ | ✓<br>▼ | ✓      | ✓               | ✓  | ✓   | ✓  |
| D3 Measure nutrient flow from sites.   | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓               | ✓  | ✓   | ✓  |

| Action<br>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 |
| <b>E. Public awareness and dissemination of results:</b> |                 |        |        |        |                 |        |        |        |                 |        |        |        |                 |    |     |    |
| E1 Land manager training Course                          |                 |        |        | ✓<br>■ |                 |        |        | ✓<br>■ |                 |        |        | ✓<br>■ |                 |    |     | ✓  |
| E2 Project website                                       | ✓               | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓               | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓               | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓               | ✓  | ✓   | ✓  |
| E3 Project information brochure                          |                 | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ▼               | ▼      | ▼      | ■      |                 |        |        |        |                 |    |     |    |
| E4 Project results booklet                               |                 |        |        |        |                 |        |        |        |                 |        |        |        |                 |    | ✓   | ✓  |
| E5 Annual bog walk                                       |                 |        |        | ▼      | ✓               |        |        | ▼      | ✓               |        |        | ▼      | ✓               |    |     |    |
| E6 Media publicity campaign                              | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓               | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓               | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓               | ✓  | ✓   | ✓  |
| E7 Interpretative displays and boardwalks                | ▼               | ▼      | ▼      | ✓<br>▼ | ▼               | ▼      | ▼      | ✓<br>▼ | ▼               | ▼      | ▼      | ✓<br>▼ |                 |    |     | ✓  |

| Action<br>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 |
| <b>F. Overall project operation and monitoring:</b>   |                 |        |        |        |                 |        |        |        |                 |        |        |        |                 |    |     |    |
| F1 Project management   | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓               | ✓  | ✓   | ✓  |
| F2 Project advisory panel   | ✓               |        |        | ■      | ✓               |        |        | ■      | ✓               |        |        | ■      | ✓               |    |     |    |
| F3 Project Report   |                 |        |        |        | ✓<br>■          |        |        | ■      | ✓               |        |        |        | ✓<br>■          |    |     | ✓  |
| F4 Procure the use of expert advice   | ✓<br>■          |        |        |        |                 |        |        |        |                 |        |        |        |                 |    |     |    |
| F5 To gain a scientific understanding of points of ground water discharge 'flushes' and their surrounding ecology |                 | ✓<br>▼ | ✓<br>▼ | ✓<br>■ | ✓<br>▼          | ✓<br>■ |        |        |                 |        |        |        |                 |    |     |    |
| F6 Hydrology monitoring.  |                 | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓<br>▼          | ✓<br>▼ | ✓<br>▼ | ✓<br>▼ | ✓               | ✓  | ✓   | ✓  |
| F7 Vegetation monitoring.   | ✓<br>▼          | ▼      | ▼      | ■      | ✓<br>▼          | ▼      | ▼      | ■      | ✓<br>▼          | ▼      | ▼      | ■      | ✓               |    |     | ✓  |
| F8 Aerial survey.   |                 |        |        |        |                 |        |        |        |                 |        |        |        |                 |    | ✓   | ✓  |
| F9 Ground inventory.  |                 |        |        |        |                 |        | ✓      | ✓<br>■ |                 |        |        |        |                 |    |     |    |

## VI SUMMARY OF DELIVERABLE PRODUCTS

| Product  | No. of Action | Deadline   | Progress to end Year 3  |
|--|---------------|------------|---|
| Project Information Brochure                       | E3            | 31.10.2002 | Overall 17,000 have been distributed to a large number of stakeholders in order to publicise the background, objectives, and actions of the project. Requests for additional information and attendance at field days from schools, individual members of the public and interested bodies have resulted from the distribution of the brochure. |
| Safety Plan and Hazard Identification              | A3            | 31.10.2002 | A safety plan has been produced and HIRA (hazard identification, risk assessment forms) are completed on all sites before actions begin. Site managers will continue to work with Coillte's safety & training team to ensure that appropriate safety procedures are in place at all times while work is ongoing during the project.             |
| Produce plan accurate photographs of project sites | A5            | 31.10.2002 | Budget proved to be seriously inadequate and timing inappropriate. An 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 and Phase II – See 1 <sup>st</sup> Progress Report 2003 Appendix 9, and see Appendix 15 of interim report. Final report will be submitted with the final Project Report.   |
| Nutrient Flow Study (Interim Report)               | D3            | 30.10.2004 | See Appendix 5 of interim report. A further report outlining progress up to Year 3 can be seen in Appendix 3 of this report.  |
| Training Pack Year III                             | E1            | 28.05.2004 | An information booklet (covering project background, objectives, specific actions and methodologies, site maps, site updates and pictures showing different actions) was given to all participants at every course in Year 3.   |
| Training Pack Year IV                              | E1            | 28.05.2005 | Not scheduled for Years 1- 3.   |
| Aerial survey is completed                         | F8            | 30.06.2006 | Not scheduled for Years 1- 3.   |
| Project Results Booklet                            | E4            | 31.07.2006 | Not scheduled for Years 1- 3.   |
| Nutrient Flow Study (Final Report)                 | D3            | 31.07.2006 | Not scheduled for Years 1- 3.   |

**VII 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 | Submitted 30.09.2004 |
| Progress Report Year III                    | 31.07.2005 | Submitted 30.11.2005 |
| Progress Report Year IV with Final Report   | 29.07.2006 |                      |

**VIII SUMMARY OF PROJECT MILESTONES**

| Milestone   | No. of Action      | Deadline   | Progress to end Year 3   |
|---|--------------------|------------|--|
| 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 for Agriculture and Food, Mr. Joe Walsh T.D., officiated at the formal launch of the project on June 3 <sup>rd</sup> , 2004 at Site No. 7 Eskeragh, Crossomlina, Co. Mayo.  |
| Project Website Launch  | E2                 | 31.03.2003 | Project website <a href="http://www.irishbogrestorationproject.ie">http://www.irishbogrestorationproject.ie</a> established and available on-line since June 2003. With 2 years experience working on the project, expansion of the website is intended to include a photo library of the work completed to date, project results and experience to date. The website was publicised as an information tool together with the overall project at the high profile launch which took place in the Summer of 2004. |
| Complete ground inventory on all sites to show cleared areas    | F9                 | 31.07.2004 | GIS (Geographic Information System) maps were produced for all sites where major operational actions had taken place, these were included in Appendix 17 of the interim report.  |
| All major clearance, fencing and damming work will be completed | C1:C2:C3:<br>C4:C5 | 31.07.2005 | Actions C1-C5 are almost completed.  |
| Project results disseminated                                    | E4                 | 31.07.2006 | Not scheduled for Years 1- 3.  |

IX FINANCIAL SUMMARY – 3<sup>RD</sup> PROGRESS REPORT (at end of Year 3)

The summary financial report and accompanying tables reflect expenditure by action categories against the original approved budget.

| Category                       | A<br>(Form 16) | A<br>(Form 16) | C<br>(Form 18)   | C<br>(Form 18)   | D<br>(Form 19) | D<br>(Form 19) | E<br>(Form 20) | E<br>(Form 20) | F<br>(Form 21) | F<br>(Form 21) | Total<br>costs<br>Actual<br>€ | Total<br>costs<br>Budget<br>€ | Total<br>Variance<br>€ |
|--------------------------------|----------------|----------------|------------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------------------|-------------------------------|------------------------|
| Budget item                    | Actual         | Budget         | Actual           | Budget           | Actual         | Budget         | Actual         | Budget         | Actual         | Budget         | Actual                        | Budget                        |                        |
| 1. Personnel                   | 10,956         | 4,063          | 334,525          | 239,953          | 77,895         | 52,980         | 122,352        | 193,849        | 309,660        | 289,527        | 855,388                       | 780,372                       | -75,016                |
| 2. Travel                      | 10,278         | 15,140         | 4,857            | 33,331           | 8,650          | 8,887          | 8,117          | 45,710         | 56,530         | 56,507         | 88,432                        | 159,575                       | 71,143                 |
| 3. External assistance         | 2,376          | 5,586          | 597,308          | 1,137,414        | 1,663          | 50,311         | 16,077         | 0              | 143,296        | 185,123        | 760,720                       | 1,378,434                     | 617,714                |
| 4. Durable goods               | 550            | 0              | 646,214          | 1,458,796        | 27,329         | 16,655         | 6,153          | 25,396         | 1,749          | 2539           | 681,995                       | 1,503,386                     | 821,391                |
| 5. Land purchase/lease         | 0              | 0              | 0                | 0                | 0              | 0              | 0              | 0              | 0              | 0              | 0                             | 0                             | 0                      |
| 6. Consumable material         | 0              | 0              | 36,262           | 3,961            | 0              | 0              | 5,604          | 20,315         | 314            | 12,189         | 42,180                        | 36,465                        | -5,715                 |
| 7. Other costs                 | 14             | 127            | 4586             | 0                | 0              | 45,873         | 12,822         | 35,999         | 3,909          | 1,978          | 21,331                        | 83,977                        | 62,646                 |
| 8. Overheads                   | 478            | 2,187          | 11,386           | 130,557          | 5,759          | 27,386         | 12,252         | 17,770         | 60,257         | 75,584         | 90,132                        | 253,484                       | 163,352                |
| <b>TOTAL</b>                   | <b>24,652</b>  | <b>27,103</b>  | <b>1,635,138</b> | <b>3,004,012</b> | <b>121,296</b> | <b>202,092</b> | <b>183,377</b> | <b>339,039</b> | <b>575,715</b> | <b>623,447</b> | <b>2,540,178</b>              | <b>4,195,693</b>              | <b>1,655,515</b>       |
| <b>% of total budget spent</b> | <b>91%</b>     |                | <b>54%</b>       |                  | <b>60%</b>     |                | <b>54%</b>     |                | <b>92%</b>     |                | <b>61%</b>                    |                               |                        |

**Summary of Project Spend for Reporting Period****1st July 2002 - 30th June 2005**

| <b>Expenditure Category</b> | <b>Amount Spent</b> | <b>Amount Budgeted</b> | <b>Variance</b>  | <b>% Spent</b> |
|-----------------------------|---------------------|------------------------|------------------|----------------|
| <b>Personnel</b>            | 855,388             | 780,372                | -75,016          | 110%           |
| <b>Travel</b>               | 88,432              | 159,575                | 71,143           | 55%            |
| <b>External Assistance</b>  | 760,720             | 1,378,434              | 617,714          | 55%            |
| <b>Durable Goods</b>        | 681,995             | 1,503,386              | 821,391          | 45%            |
| <b>Consumable Material</b>  | 42,180              | 36,465                 | -5,715           | 116%           |
| <b>Other Costs</b>          | 21,331              | 83,977                 | 62,646           | 25%            |
| <b>Overheads</b>            | 90,132              | 253,484                | 163,352          | 36%            |
| <b>Total</b>                | <b>2,540,178</b>    | <b>4,195,693</b>       | <b>1,655,515</b> | <b>61%</b>     |

## **SUMMARY FINANCIAL REPORT**

At the end of the third year of implementation on Project LIFE02NAT/IRL/8490, 61% of the total approved provisional budget has been spent. The level of expenditure incurred under each action category reflects the extent to which operational milestones have been achieved. These are outlined in detail in the technical report (above). Major operational efficiencies have been achieved during the implementation of the original approved project, mainly as a result of savings under the drain blocking action C4. A project modification request to restore up to a further 776.7 ha of blanket bog is now being submitted on this basis. A revised financial budget is included in that submission to reflect the proposed additional area for restoration, as well as the financial implications of the revised operational targets agreed in 2004.

### **“A” Actions – Preparatory Actions, Elaboration of Management Plans**

91% of the provisional budget has been spent to the end of year 3 of this project. All scheduled preparatory actions have been completed, however some of these actions need to continue to some extent for the duration of the project.

### **“C” Actions - Non-Recurring Management**

54% of the provisional budget has been spent to the end of year 3 of this project. All non-recurring management “C” actions have reached an advanced stage of completion. Revised operational targets for “C” actions were submitted and approved in 2004. These changes involved the movement of targets from the C2 Felling and Chipping action to C1 Fell Non-Commercial. Savings achieved under the C4 Drain Blocking action, particularly under the durable goods and external assistance expenditure categories, have been the catalyst for the project modification being submitted.

### **“D” Actions – Recurring biotope management**

60% of the provisional budget has been spent to the end of year 3 of this project. All recurring biotope management actions continue.

### **“E” Actions – Public awareness and dissemination of results**

54% of the provisional budget has been spent to the end of year 3 of this project. With the exception of action E4 Project Results Booklet (not scheduled until year 4), all public awareness actions continue, focusing on the aim of promoting the project’s objectives.

### **“F” Actions – Overall project operation and monitoring**

92% of the provisional budget has been spent to the end of year 3 of this project. The overspend in the Personnel category of expenditure is being addressed in the project modification submission, by a reallocation of the financial budget. This overspend reflects the greater than envisaged time spent by site managers and the project team on project management of the sites.