

**RESTORING ACTIVE BLANKET BOG IN IRELAND**

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

**(1<sup>ST</sup> JULY 2002 – 31<sup>ST</sup> December 2007)**



**4th YEAR PROGRESS REPORT – TO END OF YEAR 4**

**COVERING PERIOD**

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

**COILLTE TEORANTA**

**31<sup>ST</sup> AUGUST 2006**



**coillte**



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## I PRELIMINARY NOTE – FIRST ADDITIONAL CLAUSE

The originally approved project targeted restoration of 1,212.3 ha of blanket bog on 14 sites from 1 July 2002 to 30<sup>th</sup> June 2006. After Year 3, Coillte submitted, on 12 December 2005, a modification request arising from major operational efficiencies which had resulted in significant financial savings during the implementation of the original approved project (including some previously agreed revised action targets). The modifications requested were principally:

- the utilization of an underspend of €1,004,889 for the restoration of up to 776.7 ha of extra blanket bog areas on six additional sites;
- a time extension from 30<sup>th</sup> June 2006 to 31<sup>st</sup> December 2007 to allow these extra areas be restored; and
- a re-allocation of the original budget to facilitate these proposed modifications.

On 9 February 2006, the European Commission informed Coillte that its modification request had been approved, resulting in a **FIRST ADDITIONAL CLAUSE**. This project, as modified, now targets the restoration of up to 1,989 ha of blanket bog on 20 sites over the period 1 July 2002 to 31<sup>st</sup> December 2007 subject to the requested re-allocation of the original budget. This 4<sup>th</sup> progress report and the final report will deal with the 14 original and six additional sites as a unified 20-site project.

## II EXECUTIVE SUMMARY

After four years working on the project, progress to date on Project LIFE02 NAT/IRL/8490 “Restoring Active Blanket Bog in Ireland” is almost complete on the original project area, and some work has begun on the additional sites:

- All scheduled preparatory “A” actions have been completed at this point on the original project sites, however experience has shown that some of these actions need to continue to some extent for the duration of the project, and work on these actions will also continue on a limited basis for the additional sites;
- All non-recurring management “C” actions are almost complete on the original project sites, with small areas to be finished, and work has begun on some of the additional sites in relation to felling;
- All recurring management “D” actions have continued, and these actions will also continue on a limited basis on the additional sites;
- All scheduled public awareness “E” actions continued, focusing on the aim of promoting the project’s objectives. It is planned that promotion of the project for the duration of the project time extension will also continue;
- All scheduled project management “F” actions continued and the “F” actions will also form part of the project time extension.

Full detail on all the aforementioned can be seen in the **REPORT BY ACTION** in Section V.

### **III 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 fourth 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.

### **IV 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 2002-2007) aims at priority habitat restoration on 20 blanket bog sites covering 1,989 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 have been selected as project demonstration sites, these are the focus of a public awareness programme over the 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 up to 982.27 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

Four 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.

Currently a database of all habitats identified from ecological surveys undertaken on the company estate is being developed which will show areas of intact blanket bog and areas suitable for blanket bog restoration into the future. The project manager and site managers are involved in this work as part of their day to day management responsibilities.

### 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". 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. An area of blanket bog in Finnaun property, Cloosh forest, recommended for management for nature conservation during Coillte's forest management ecology survey, has been selected for restoration to blanket bog following recommendations from the blanket bog Life project team. The COFORD/Coillte project team also visited one of the blanket bog project sites (Bellaveeny) to see at first hand the work which has been ongoing.

In addition to this project, Coillte has formed a group comprising representatives of Coillte staff, Forest Service, NPWS, Fishery boards and the Marine Institute looking at management options for peatlands in the west. Approximately 40,000ha of peatlands were afforested in the past where commercial forestry may no longer be a viable option. A full time Coillte staff member is working on the project at the moment, looking at data and results from both the Coford project and the LIFE Blanket Bog project to come up with management options for the future of these important peatlands.

### Project Links with IPCC (Irish Peatland Conservation Council)

Coillte has continued its links with the IPCC through meetings and in an advisory capacity on the restoration of their own bog project, primarily on drain blocking methodologies.

### Project Links with Further Education

Best practices, identified during the project to date, formed part of a dissertation titled "A review of methodologies used for Restoring Active Blanket Bog in the West of Ireland". This has been completed by a Coillte staff member who studied for a B.Sc. Honours Degree in Forestry Management at the University of Central Lancashire (UK). On the recommendation of Graham Tucker, Astrale External Monitoring Team, this dissertation will be submitted for inclusion on a website titled [www.conservationevidence.com.htm](http://www.conservationevidence.com.htm). This website collates information on the effectiveness of conservation practice.

## V TECHNICAL REPORT – ALL RELEVANT ACTIONS

NOTE: the scheduled duration of all actions is now as per the replacement Form 22 in the annex to the approved modification request (first additional clause).

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

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

##### **Completed**

For visits which took place in years 1-3, please refer to the appropriate reports. In year 4, a visit was made by the Finnish Aapa Mires Life Project Team (LIFE02/NAT/FIN/008469) to our project, knowledge and experience were shared and discussed. Our project has also made good links with another Irish Life project, “Farming for Conservation in the Burren” (LIFE04/NAT/IE/000125), in May 06. See Appendix 1 – Various pictures showing visits to and from our project.

##### **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. It is planned that a number of staff will attend the Scottish Life Peatlands project end of project conference in Autumn 2006.

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

##### **Completed**

On-going consultation continues with the National Parks and Wildlife Staff (NPWS) and other stakeholders as the project continues. In addition to having a member of research branch (NPWS) specialising in blanket bog ecology on the Project Management Group (PMG), we invite a local NPWS ranger to each of our PMG meetings. This began in Quarter 3, Year 2. Consultation on plans have taken place for the six additional sites with the Forest Service and NPWS. The following sites, Coravookeen, Pollagoona Carrickbar and Cappahoosh (part) have been granted felling licences. Derry felling licence has been agreed and is expected by end of August 2006. Kingarrow felling licence approval is awaiting feedback from NPWS Pearl Mussel survey. The second section of Cappahoosh is also awaiting approval from NPWS. See Appendix 1 of our 1<sup>st</sup> Progress Report (July 2003) for Consultation procedure.

### 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 has provided NPWS with digitised maps showing areas to be added to cSACs, and a site by site report detailing the status of restoration.

### **Comments**

Our consultation activity will be an integral part of our continuing work on the project's additional sites. This action has been most useful in developing good working relationships at local level between Coillte, NPWS, Forest Service and IPCC. Our links with the COFORD/Coillte project will also continue.

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

#### **Completed**

The company's safety officer has reviewed and updated the blanket bog Safety Plan following completion of work on a number of project sites, HIRA forms have been completed for all operational work to date and safety regulations are adhered to on all sites and the same procedure is in place for our six additional 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**

#### **Completed**

Survey work is now complete on all original project sites where it was required.

### **Comments**

This action is not planned on the additional sites.

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

#### **Completed**

The identification of outfalls, which gives a good indication of levels and facilitates planning of the drain blocking action, has been achieved at all original project sites where drain blocking has taken place. An alternative methodology than was originally planned was utilised (this is detailed in our interim report and also our 3<sup>rd</sup> progress report. (See also action C4 – Drain Blocking).

### **Comments**

This methodology will be utilised for our six additional project sites.



“C” Actions - Non-Recurring Management

NOTE: the site by site programme for all actions is now as per the replacement Form 18 in the annex to the approved modification request (first additional clause). Detailed notes as to how these site programmes came about are available in the 3<sup>rd</sup> Progress Report. The following tables for each action outline progress to date against programme.

**C1: Fell mature trees non-commercial felling – Completed:**

Site No.	Site Name	Detail of action	Revised area for Action (Ha)	Area complete to 30/06/06 (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
*4 a	Pollagoona	Fell/Windrow	28.7	4.65	24.05	12/07
5	Emlaghdauroe	Fell to Waste	10.0	7.6	0.0	Complete
6	Bellaveeny	Fell/Windrow	126.0	126.0	0.0	Complete
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	30.8	0.0	Complete
13	Croaghonagh	No Program	0.0	0.0	0.0	No Program
14	Carrick Barr	Fell to Waste	12.1	11.65	0.45	12/07
*14 a	Carrick Barr	Fell to Waste	25.9	0.0	25.9	12/07
15	Sessuegilroy	Fell/Windrow	8.5	3.8	4.7	12/07
16	Slieve Blooms	No Program	0.0	0.0	0.0	No Program
*17	Corravokeen	Fell to Waste	36.0	16.0	20.0	12/07
18	Derry	Fell/Windrow	181.4	0.0	181.4	12/07
19	Kingarrow	Fell/Windrow	25.9	0.0	25.9	12/07
20	Cappaghoosh	Fell to Waste	189.2	0.0	189.2	12/07
	<b>Total</b>		<b>862</b>	<b>395</b>	<b>471.6</b>	

**Comments**

Overall, this action is making good progress, with nearly all areas completed on the original project sites.

▪On site no: 11 Shanvolahan, an area of 5 ha which was due to be commercially felled had to be subsequently felled under this action. This was due to the area being very wet, poor quality material and part of the area windblown. Felling is progressing on additional sites Pollagoona and Corravokeen. Work will begin in the 1<sup>st</sup> Quarter, Year 5, on sites Carrick Barr, Derry and Cappaghoosh. Felling on site Kingarrow, is planned for 2007 subject to felling licence and NPWS approval.

In relation to the work completed under this action different methodologies were used, the two main ones being fell to waste and fell and windrow, and their effectiveness varied...

Fell to waste – Conifers were felled by chainsaw and simply left where they fell. Though relatively inexpensive this technique does have a number of drawbacks related to the amount of dead tree material left on the ground. A thick layer of trees left on the ground will significantly retard the recovery of bog vegetation, and the presence of trees on the ground makes areas very difficult to traverse. At sites where the crop was heavy, the bog vegetation will take a much longer time to re-establish, however at sites where the crop was light, purple moor-grass (*Molinia caerulea*) has returned.

Fell and windrow – In this methodology felled trees are put in windrows (long lines of felled trees) with the use of an excavator. In doing this large areas of ground surface are cleared. The regeneration of bog vegetation in these inter-windrow areas is much enhanced and it is much easier to carry out follow up operations. At most sites where this treatment was used the regeneration of bog vegetation, especially purple moor-grass (*Molinia caerulea*) has been spectacular, with 90% ground cover achieved at some sites within 2 years of felling. For more details on these methodologies see Appendix 14 – Vegetation Monitoring Report

## C2: Fell and chip conifers – Completed:

Site No.	Site Name	Detail of action	Revised area for Action (Ha)	Area complete to 30/06/06 (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	Felled 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

There is no programme for fell and chip on the additional project sites.

The fell and chip methodology was used in order to reduce the volume of woody material on the bog surface. Tress were felled by chainsaw and then fed into a chipper by an excavator fitted with a grab. The regeneration of bog vegetation has been very good where it was used. Although this technique produces a very clean bog surface it is both time-consuming and very expensive. For more details on this methodology see Appendix 14 – Vegetation Monitoring Report

### C3 : Commercial Felling – Completed:

Site No.	Site Name	Detail of Action	Revised area for Action (Ha)	Area complete to 30/06/06 (Ha)	Balance to complete (Ha)	Expected completion date
2	Garrane	No Program	0.0	0.0	0.0	No Program
3	Dromalohurt	No Program	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	0.0	Complete
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>0.0</b>	

### Comments

This action is now complete. There is no programme for commercial felling on the additional project sites. However, as indicated in the modification request and approved in the first additional clause, some commercial felling on three of the additional sites (nos. 4a, 14a and 17) will take place outside of the project budget as part of Coillte's normal harvesting operations. Accordingly, there is no charge against the project budget for this non-project activity. Once cleared of their commercial timber crops, the areas involved will be available for any relevant project actions for which they have been programmed and will constitute part of the project area into the future. At this stage, harvesting of areas identified for such commercial felling on two sites, 4a Pollagoona and 17 Corravokeen, has begun - with site 14a Carrick Barr not scheduled to start until the 2<sup>nd</sup> quarter of Year 5.

▪The balance of material from Shanvolahan was unsuitable for commercial felling due to windblow, it being a very wet area and poor material. This material was completed under the fell to waste action (C1).

At some sites the conifer trees have grown to a stage where they constitute a commercial crop. These trees are felled by machine, debranched and the trunks are transported to the roadside by forwarder. This leaves the ground covered by brush mats, which are necessary to keep the harvesting machines from bogging in the soft peat soil. The recovery of bog vegetation is generally slow at these sites, mainly due to the initially low cover of bog species under the mature conifer canopy. Areas where commercial felling took place are also prone to the invasion of plant species not typical of ombrotrophic blanket bogs in Ireland such as soft rush (*Juncus effuses*) and seedlings of tree species such as lodgepole pine. Although commercial felling as a methodology is the least expensive, the recovery of blanket bog habitat is slow due to severe drying out of the peat soil. For more details on this methodology see Appendix 14 – Vegetation Monitoring Report.

#### C4: Install Dams – Completed:

Site No.	Site Name	Detail of Action	Revised area for Action (Ha)	Area complete to 30/06/06 (Ha)	No. dams installed to 30/06/06	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
4 a	Pollagoona	Install dams	38.9	0.0	0.0	38.9	12/07
5	Emlaghdauroe	Install dams	72.17	72.17	14900	0.00	Complete
6	Bellaveeny	Install dams	126.0	126.0	15279	0.00	Complete
7	Eskeragh 1	Install dams	12.3	10.3	823	2.00	12/07
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	0.00	No Program
11	Shanvolahan	Install dams	66.2	66.2	1964	0.00	Complete
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
14 a	Carrick Barr	Install dams	41.9	0.0	0.0	41.9	12/07
15	Sessuegilroy	Install dams	15.6	1.7	420	13.9	06/07
16	Slieve Blooms	Install dams	252.0	184.0	1040	68.0	06/07
17	Corravokeen	Install dams	89.7	0.0	0.0	89.7	12/07
18	Derry	Install dams	196.6	0.0	0.0	196.6	12/07
19	Kingarrow	Install dams	45.8	0.0	0.0	45.8	12/07
20	Cappaghoosh	Install dams	363.8	0.0	0.0	363.8	12/07
	<b>Total</b>		<b>1556.7</b>	<b>696.1</b>	<b>50974</b>	<b>860.6</b>	

#### Comments

This action is complete on nearly all the original project sites, with the balance to be completed in Year 5. On completed sites, dams will be monitored to measure success of operation and any necessary remedial action will be carried out during Year 5. Work will begin on the additional sites following felling operations.

**C5: Erect/Repair Fences – Completed:**

Site No.	Site Name	Detail of Action	Revised area for Action (Ha)	Revised Metres of fence to be erected	Area complete to 30/06/06 (Ha)	Metres of fence erected to 30/06/06	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	64.0	3441	0.0	0	Complete
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>586.4</b>	<b>32431</b>	<b>0.0</b>	<b>0</b>	

**Comments**

This action is complete on all original project sites. 5 sites had no programme originally but a programme was subsequently necessary. This is explained in previous reports i.e. Year 3 progress report and our interim report. Fencing is not planned on the additional project sites.

**C6: Build and repair roads onto sites for safe access and the removal of trees****Completed:**

Site No.	Site Name	Detail of action	Revised metres for Action	Metres complete to 30/06/06	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
14a	Carrick Barr	Repair	1500	0	1500	12/07
15	Sessuegilroy	Repair	1500	1500	0	Complete
16	Slieve Blooms	Car Park Access	0	0	0	Complete (Car Park only)
17	Corravokeen	No Program	0	0	0	No Program
18	Derry	No Program	0	0	0	No Program
19	Kingarrow	No Program	0	0	0	No Program
20	Cappaghoosh	Repair	1500	300	1200	12/07
	<b>Total</b>		<b>7360</b>	<b>4860</b>	<b>2700</b>	

**Comments**

This action is complete on the original project sites. In relation to the additional project sites, 3,000 metres of repairs are needed for operational access. This work will take place at site 14a Carrick Barr and Site 20 Cappaghosh some of which has already started.

**C7: Install Dipwells – Completed:**

Site No.	Site Name	Detail of action	Complete to 30/06/06 (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 on the original project sites. This action will not be carried out on the additional project sites.

“D” Actions – Recurring biotope management**D1: Remove natural regeneration – Completed:**

Site No.	Site Name	Detail of action	Revised Target for Action (No.)	Complete to 30/06/06 (No.)
2	Garrane	Remove regen	0	21.5
3	Dromalohurt	Remove regen	0	48.0
4	Pollagoona	Remove regen	0	0.0
5	Emlaghdauroe	Remove regen	0	17.0
6	Bellaveeny	Remove regen	0	0.0
7	Eskeragh 1	Remove regen	0	0.0
8	Eskeragh 2	Remove regen	0	0.0
9	Owenirragh	Remove regen	0	49.0
10	Glencullin	No Program	0	0.0
11	Shanvolahan	Remove regen	0	18.0
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>339.5</b>

**Comments**

This action will vary from site to site depending on the strike of the re-generating conifers and will be carried out as the need arises in the final year of the project. It will be monitored closely on all sites.

**D2: Removal of trespassing livestock****Completed:**

On two sites a number of hours/lifts have been recorded, this action will continue on all sites on an “as required” basis.

**Comments**

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



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

**Completed**

Site managers together with Coillte research staff have continued to take water samples on a monthly basis. Due to the high level of national interest in the findings to date this action will continue on the original project sites up to the end of the project. A report outlining data to date can be viewed at Appendix 2 (Water Monitoring Report).

**Comments**

Two of the additional project sites, Cappaghooish and Pollagoona, are being monitored at Coillte's own expense. This monitoring by Coillte will continue post felling to determine any impacts on water quality.

“E“ Actions – Public awareness and dissemination of results

**E1: Land manager training course**

**Completed**

For details on courses held in years 1-3, please refer to appropriate reports. In Year 4, a number of information days were organised, with various groups and organisations invited, detailed as follows:

1. At site No. 4 Pollagoona, John Feehan (UCD Lecturer) and his students returned to our project to view another site, they had previously visited site No. 16 Slieve Blooms in 2004 and are keen to follow progress on the project.
2. An environmental women's group from Belfast attended a presentation and field visit to demonstration site No.13 Croaghonagh Nth, in August 2005.
3. In September 2005, Northern Ireland Forest Service staff, involved in environmental and district work, visited site No. 6 Bellaveeny and demonstration site No. 7 Eskeragh. This group have contacted us for various information relating to how the restoration work is carried out since their information day.
4. Dr. Ger Kiely, from the Department of Civil & Environmental Engineering, and some of his students from University College Cork, visited site No.3 Dromalohurt to see our project work. They were very interested in the project. Our project team also viewed hydrology study work which Dr. Kiely and his students are working on. This study is on an area adjacent to the project's Dromalohurt site.
5. The Coillte/Coford Research project group visited site No. 6 Bellaveeny to see the project work and discuss the methodologies.
6. In March 2006, an appreciation day for foresters and ecologists was held at site No. 11 Shanvolahan and extension site No. 17 Corravokeen.

Overall these days proved useful, informative and enjoyable for all participants and they promoted the objectives and progress of the project to those who took part. See Appendix 3 – Number of photographs showing groups who attended information days in Year 4, a thank you e-mail from Ger Kiely, an itinerary and handout for Bog Restoration “An appreciation day for foresters & Ecologists”.

### **Comments**

As the project progresses, and the major actions are near completion, it has proved beneficial to bring groups to see the work at an advanced stage, when it is easier to see the recovery of bog vegetation and the various methodologies used. Bog walks to view the various types of flora found on the bog have also formed part of these information/training days to date.

These information/training days promote the project, disseminate the experience to date and have been received with great enthusiasm. Having secured our project extension, it is planned to continue promoting the project, through the organisation of further such information/training days.

### **E2: Project Website**

#### **Completed**

In Year 4, work was completed on the expansion and updating of the project website [www.irishbogrestorationproject.ie](http://www.irishbogrestorationproject.ie). It lists detail in relation to publicity gained to date throughout the project, information days held, facts about bogs for children, some pre restoration and post restoration photographs, and copies of relevant reports can be downloaded. Links to other relevant projects are available and, in due course our project results will be available to be downloaded.

#### **Comments**

The website is a valuable information tool, and is seen as a very beneficial way of disseminating the projects objectives and progress.

**E3: Project Information Brochure****Completed**

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
Aapa Mires Project Group	Finland
Northern Ireland Forest Service	Northern Ireland
Ballyhaise Forestry College	C. Cavan
Burren Life Project Group	Co. Clare
Golden Eagle Life Project	Co. Donegal
University College, Cork	Co. Cork
Border Mires Project	United Kingdom
All Ireland Ploughing Championships	Co. Cork
Scottish Peatlands Project	United Kingdom
Forest Enterprise	United Kingdom

**Comments**

Over 18,000 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.

**E4: Project results booklet****Completed**

This action is not required until the final year of the project.

## **E5: Annual bog walk**

### **Completed**

Bog walks formed part of the land managers days organised under Action E1. See Appendix 4 – John Conaghan, project ecologist, explains bog species characteristics to a group at one of our information days.

### **Comments**

It is planned to continue this action to coincide with Action E1 for the duration of the project.

## **E6: Media Publicity Campaign**

### **Completed**

Communication of the objectives of the project through the use of the media has continued in Year 4 of the project. The main tasks completed were the following:

- Other technical articles have been produced and published during the 4th Year of the project. See Appendix 5 (Lifestyle Green) – Ireland’s sustainable Development Magazine.
- 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 6 (Coillte Publication Articles) –Annual report & accounts, Social & Environmental Report, Coillte Contact
- Local communities, stakeholders, NGOs, staff from educational institutions, environmental groups and relevant public authorities have been targeted to attend information/training days. See Action E1 for more detail.
- The website expansion plan has been completed and the website will be kept updated on a regular basis.
- An information stand promoted the project at Ireland’s National Ploughing Championships in September 2005, which is one of the country’s major agricultural events. This proved very successful for promotion of the project – with 150,000 visitors attending this event. See Appendix 7 – Stand at National Ploughing Championship event.
- Promotion of the project objectives, background and progress has also been achieved through the attendance of the Project Manager and PR/Administration Manager at District Public Consultation Meetings, summary handouts and brochures in relation to the project have been distributed at this forum. See Appendix 8 – Stand at District Public Consultation Meetings.
- The project has also made links and exchanged information with the project management staff from the Burren Life Project Team, namely Brendan Dunford, and Ruari O’Chonchir. A visit by the blanket bog team to this project took place in April 2006. Staff from the Burren project plan to visit the Life Blanket Bog Project in Spring 2007.

- Links continue with educational institutions, such as University College, Dublin and University College, Cork with staff and students who are interested in the environmental area. See Action E1 – Land Managers Days.
- A French environmental student Gregoire Decamps from the University of Agricultural Engineering and Natural Resource in Montpellier, on a work placement with Coillte, also worked on the project checking the drain blocks and the occurrence of regeneration of conifers on project sites.
- John Conaghan, contract project ecologist gave a talk on the project as part of a lecture on “The Restoration of Afforested Blanket Bog Habitat in Ireland” to a group of 3<sup>rd</sup> and 4<sup>th</sup> year students, and also to post graduate students from the Department of Botany, University College, Galway. See Appendix 9 – Copy of Details.

### **Comments**

Publicity of the project, its objectives and actions will continue until the new project end, December 2007. Experience gained on the different techniques used to complete the restoration work, has been interesting and educational for our stakeholders to learn about.

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

#### **Completed**

The balance of Interpretative display signs have been erected at all demonstration sites, and provide visitors with information such as project background, pictures of work in progress, site specific details, overall site locations, the Life and Natura logo and the project website address. See Appendix 10 – Picture of Interpretative Display Sign.

### **Comments**

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**

#### **Completed**

Four successful Project Management Group (PMG) meetings were held in each project year to date (for full details of Years 1, 2 and 3, see previous reports).

#### **Year 4**

Four Project management group meetings, were held in Year 4. Because our EU monitoring mission took place towards the end of June, and a large number of staff from

the project management group met to prepare for the monitoring mission, this formed one of our meetings in Year 4. See Appendix 11 – Copy of presentation made to Dr. Graham Tucker and Walter Cortellini. These meetings incorporated site visits to a variety of the project sites to discuss issues, and resolve problems.

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 very useful forums for addressing issues, and for problem solving.

### **F2: Project Advisory Panel**

#### **Completed**

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. For details of meetings held in years 1-3, please see appropriate report.

In Year 4, due to our EU monitoring mission, it was not possible to arrange the Project Advisory Panel meeting before the end of June 2006. It has therefore been decided that the meeting will be held in September 2006.

### **Comments**

These meetings and field trips to date have been organised at a variety of project sites, to give panel members an overview of the restoration methodologies and a forum to discuss issues raised. Liaison has been maintained with project panel members and information exchanged. See Appendix 12 (Blanket Bog Project Team with Conor Burns (deputy member of the Project Advisory Panel, at Cuilcagh Mountain Park Life Site)

### **F3: Project Report**

#### **Completed**

Progress reports have been submitted to the EU for years 1-3 . The 4<sup>th</sup> Year progress report was prepared and submitted to the European Commission mid September 2006.

### **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**

**Completed**

Action Complete in Year 1.

**Comments**

It is planned to take on board relevant information from Russell Andersons report in relation to the six additional project sites.

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

**Completed**

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 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 and whose representatives have already seen the monitoring in progress and expressed a wish to see the final results.

**F6: Hydrology monitoring**

**Completed**

As already outlined under action C7, dipwells (Walrags) have been installed on 11 sites.. Readings have been taken monthly and recorded. Appendix 13 outlines a preliminary report on readings from the walrags at selected sites in the project.

**Comments**

These readings will be collated as the project progresses to provide information in relation to changes in water levels.

**F7: Vegetation Monitoring**

**Completed**

Vegetation transects have been laid down on cleared areas on all sites. Appendix 14 (Vegetation Monitoring Report) outlines work completed to date on each site.

**Comments**

Overall, the recovery of bog vegetation is very evident. Rate of recovery varies according to density of original tree cover and restoration methodology utilised on each site. Positive results can be seen on many sites to date which is encouraging.

**F8: Aerial Survey**

**Completed**

This action is not planned until Year 6.. However plans are underway to do an aerial survey of original project site no 5 Emlaghdauroe, and additional site 18. It is planned to evaluate the results of these surveys. We are also discussing with Ordnance Survey of Ireland the possibility of getting copies of aerial images of other sites in the first quarter of Year 5. NPWS have supported us to date in the provision of their aerial images taken in 2000.

**Comments**

To date the project team have been using the NPWS archive aerial shots for reference.

**F9: Ground Inventory**

**Completed**

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 4

## Table Legend

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

Action Number/name	Project Years 1-3 01/07/02 – 30/06/05			Project Year 4 01/07/05 – 30/06/06				Project Year 5 01/07/06 – 30/06/07				Project Year 6 01/07/07 – 31/12/07			
	YR1	YR2	YR3	QI	II	III	IV	QI	II	III	IV	QI	II		
<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 plan accurate photographs of all project sites.	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼		▼	✓	✓						
<b>B. Purchase/lease of land and/or rights:</b>															
None															

Action  Number/name	Project Years 1-3 01/07/02 – 30/06/05			Project Year 4 01/07/05 – 30/06/06				Project Year 5 01/07/06 – 30/06/07				Project Year 6 01/07/07 – 31/12/07			
	YR1	YR2	YR3	QI	II	III	IV	QI	II	III	IV	QI	II		
<b>C. Non-recurring biotope management:</b>															
C1 Fell mature trees non-commercial felling.	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓		
C2 Fell and chip conifers	✓ ▼	✓ ▼	✓ ■												
C3 Commercial felling.	✓ ▼	✓ ▼	✓ ■												
C4 Install dams.	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓		
C5 Erect enclosures on unplanted areas and repair fences on cleared areas.	✓ ▼	✓ ▼	✓ ■												
C6 Build and repair roads onto sites for safe access and the removal of trees.	✓ ▼	✓ ■	✓	✓	✓	✓	✓	✓	✓						
C7 *Install dipwells.	✓ ■	✓	✓												
<b>D. Recurring biotope management:</b>															
D1 Remove natural regeneration.	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓		
D2 Removal of trespassing livestock.	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓		
D3 *Measure nutrient flow from sites.	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓		

Action  Number/name	Project Years 1-3 01/07/02 – 30/06/05			Project Year 4 01/07/05 – 30/06/06				Project Year 5 01/07/06 – 30/06/07				Project Year 6 01/07/07 – 31/12/07			
	YR1	YR2	YR3	Q1	II	III	IV	Q1	II	III	IV	Q1	II		
<b>E. Public awareness and dissemination of results:</b>															
E1 Land manager training course	✓ ■	✓ ■	✓ ■	▼	▼	▼	✓ ■				✓				
E2 Project website	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓		
E3 Project information brochure	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓		
E4 Project results booklet												✓	✓		
E5 Annual bog walk		✓ ▼	✓ ▼	✓	▼		▼	✓				✓			
E6 Media publicity campaign	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓		
E7 Interpretative displays and boardwalks	✓ ▼	✓ ▼	✓ ▼	▼	▼	▼	✓ ▼								

Action	Project Years 1-3 01/07/02 – 30/06/05			Project Year 4 01/07/05 – 30/06/06				Project Year 5 01/07/06 – 30/06/07				Project Year 6 01/07/07 – 31/12/07			
	YR1	YR2	YR3	QI	II	III	IV	QI	II	III	IV	QI	II		
<b>F. Overall project operation and monitoring:</b>															
F1 Project management	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓	✓	✓		
F2 Project advisory panel	✓ ■	✓ ■	✓ ■				✓				✓				
F3 Project Report	✓ ■	✓ ■	✓ ■	✓			■	✓				✓	✓	✓	
F4 Procure the use of expert advice	✓ ■					✓ ▼	✓ ▼	✓							
F5 To gain a scientific understanding of points of ground water discharge 'flushes' and their surrounding ecology	✓ ■	✓ ■													
F6 *Hydrology monitoring.	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓ ▼	✓	✓	✓	✓				
F7 *Vegetation monitoring.	✓ ■	✓ ■	✓ ■	✓ ▼	▼	▼	■	✓				✓			
F8 Aerial survey.												✓	✓		
F9 Ground inventory.		✓ ■										✓	✓		

Coillte Teoranta (The Irish Forestry Board)

**VI SUMMARY OF DELIVERABLE PRODUCTS**

Product	No. of Action	Deadline	Progress to end Year 4
Project Information Brochure	E3	31.10.2002	Overall 18,000 have been distributed to a large number of stakeholders in order to publicise the background, objectives, and actions of the project.
Safety Plan and Hazard Identification	A3	31.10.2002	A safety plan has been produced and updated and HIRA (hazard identification, risk assessment forms) are completed on all sites before actions begin.
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 progress report 3 under Action A5 for full details..
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 4 can be seen in Appendix 2 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	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 4. See Action E1 – Blanket Bog Appreciation Day Hand Out.
Aerial survey is completed	F8	30.06.2007	Not scheduled for Years 1- 4
Project Results Booklet	E4	31.12.2007	Not scheduled for Years 1- 4.
Nutrient Flow Study (Final Report)	D3	31.12.2007	Not scheduled for Years 1- 4

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**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	31.08.2006	Submitted 15.09.2006
Progress Report Year V with Final Report	31.03.2008	

**VIII SUMMARY OF PROJECT MILESTONES**

Milestone	No. of Action	Deadline	Progress to end Year 4
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. 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. The website has been updated to include information such as site work before and after, the project extension site detail, information days held etc.
Complete ground inventory on all sites to show cleared areas	F9	31.12.2007	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: C4:C5	31.12.2007	Actions C1-C5 are almost completed on the original project sites and some of these actions have begun on the additional sites.
Project results disseminated	E4	31.12.2007	Not scheduled for Years 1- 4.

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**IX FINANCIAL SUMMARY – 4th PROGRESS REPORT (at end of Year 4)**

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

**Financial Summary July '02- June '06**

Category →	A (Form 16)	A (Form 16)	C (Form 18)	C (Form 18)	D (Form 19)	D (Form 19)	E (Form 20)	E (Form 20)	F (Form 21)	F (Form 21)	Total costs € Actual	Total costs € Budget	Va
Budget item	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	
1. Personnel	10,956	13,100	419,091	795,087	118,977	163,606	211,376	263,998	456,880	513,742	1,217,280	1,749,533	
2. Travel	12,451	16,699	5,011	7,476	10,236	18,348	11,929	22,349	91,282	123,349	130,909	188,221	
3. External assistance	2,376	10,086	629,113	878,276	4,548	20,000	21,844	21,890	159,923	237,798	817,804	1,168,050	
4. Durable goods	550	550	646,328	728,572	27,329	28,747	19,315	35,396	1,749	2,539	695,271	795,804	
5. Land purchase/lease	0	0	0	0	0	0	0	0	0	0	0	0	
6. Consumable material	0	0	46,876	87,100	0	0	1,265	10,348	441	12,189	48,582	109,637	
7. Other costs	14	127	0	0	0	0	35,976	38,102	4,430	4211	40,420	42,440	
8. Overheads	478	2,187	7,121	22,656	13,099	20,770	8,245	24,701	55,180	71,694	84,123	142,008	
<b>TOTAL</b>	<b>26,825</b>	<b>42,749</b>	<b>1,753,540</b>	<b>2,519,167</b>	<b>174,189</b>	<b>251,471</b>	<b>309,950</b>	<b>416,784</b>	<b>769,885</b>	<b>965,522</b>	<b>3,034,389</b>	<b>4,195,693</b>	<b>1</b>
% of total budget spent	63%		70%		69%		74%		80%		72%		



**Summary of Project Spend for Reporting Period  
July 2002- June 2006**

<b>Expenditure Category</b>	<b>Amount Spent</b>	<b>Amount Budgeted</b>	<b>Variance</b>	<b>% Spent</b>
<b>Personnel</b>	1,217,280	1,749,533	532,253	70%
<b>Travel</b>	130,909	188,221	57,312	70%
<b>External Assistance</b>	817,804	1,168,050	350,246	70%
<b>Durable Goods</b>	695,271	795,804	100,533	87%
<b>Consumable Material</b>	48,582	109,637	61,055	44%
<b>Other Costs</b>	40,420	42,440	2,020	95%
<b>Overheads</b>	84,123	142,008	57,885	59%
<b>Total</b>	<b>3,034,389</b>	<b>4,195,693</b>	<b>1,161,304</b>	<b>72%</b>

## **SUMMARY FINANCIAL REPORT**

At the end of the fourth year of project LIFE02 NAT/IRL/8490 ‘ Restoring Active Blanket Bog in Ireland’, 72% of the total approved budget has been spent. The level of expenditure incurred under each action category reflects the extent to which operational milestones have been achieved, as outlined in detail in the technical report. The summary financial report and accompanying tables reflect expenditure by action against the modified approved budget.

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

63% of the budgeted cost has been incurred in the period covered by the 4th year progress report. All scheduled preparatory actions have been completed now on the original project sites. However some of these actions need to continue to an extent for the duration of the project, and work on these actions will continue on a limited basis for the additional sites. Survey of fence lines was not planned on the additional sites.

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

70% of the approved budget has been spent to the end of Year 4 of the project.

The non-recurring management “C” actions are almost complete on the original project sites, with small areas to be completed (some non-commercial felling and install dams work remains). Felling work has begun on some of the additional sites.

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

69% of the approved budget has been spent to the end of Year 4 of this project. All recurring management “D” actions have continued. These actions will also continue on a limited basis on the additional sites, with the exception of the nutrient flow measurement activity which takes place on original project sites only.

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

74% of the approved budget has been spent in the period covered by this report.

With the exception of action E4 Project Results Booklet (not now scheduled until year 6), all public awareness actions continue, focusing on the aim of promoting the project’s objectives. These actions will continue for the extended duration of the project.

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

80% of the approved budget has been incurred in the period covered by this report.

All scheduled project management “F” actions are ongoing and will continue to the project’s extended end date. Action F4 ‘Procure the Use of Expert Advice’ was completed in year 1 but this advice is being applied to the six additional sites where appropriate.