



<b>Update on the Water Environment Restoration Fund</b>
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**1. Introduction**

- 1.1 The purpose of this paper is to provide an update of progress with the Restoration Fund.

**2. Background**

- 2.1 Since 2008/09, the Scottish Government has provided funding for a Water Environment Restoration Fund, managed by SEPA. The available resources increased over the first three years from £280k to £1.1m in 2010/11. In each year, SEPA has successfully spent the funds allocated to the Fund. During the last spending review, an additional £7m over three years was allocated to restoration and this will increase the annual spend to between £2m and £3m.
- 2.2 The Fund includes a minimum of £500k allocated from SEPA's budget. The rest of the money is drawn down from a Scottish Government budget.
- 2.2 The Fund has proved to be a very effective means of delivering environmental improvements in a manner complementary to our regulatory functions. Over the first three years of its existence it has delivered a wide range of projects (see annex).

**3. Development of the Fund**

- 3.1 Initially the Fund provided support to projects identified by third parties such as Fishery Trusts, NGOs or Councils. These projects promote a partnership approach to addressing environmental problems and typically involve sharing the costs. The disadvantage of this approach is that these projects tend to be small-scale projects scattered across Scotland which do not necessarily address the problems which River Basin Management Planning (RBMP) has identified as a priority.
- 3.2 The Fund as progressively allocated more funds to strategically directed projects which have been identified by SEPA and then developed with partners. Typically these projects are large-scale, expensive projects where attracting match funding from partners is very difficult. Instead multi-million pound applications for support are being made to the Lottery Fund (one project) or EU Funds (three projects).
- 3.3 Currently funding from SG focuses upon delivering RBMP and Flood Risk Management objectives. SEPA is in discussion with colleagues in SG to expand the scope of its restoration work to deliver wider environmental benefits.

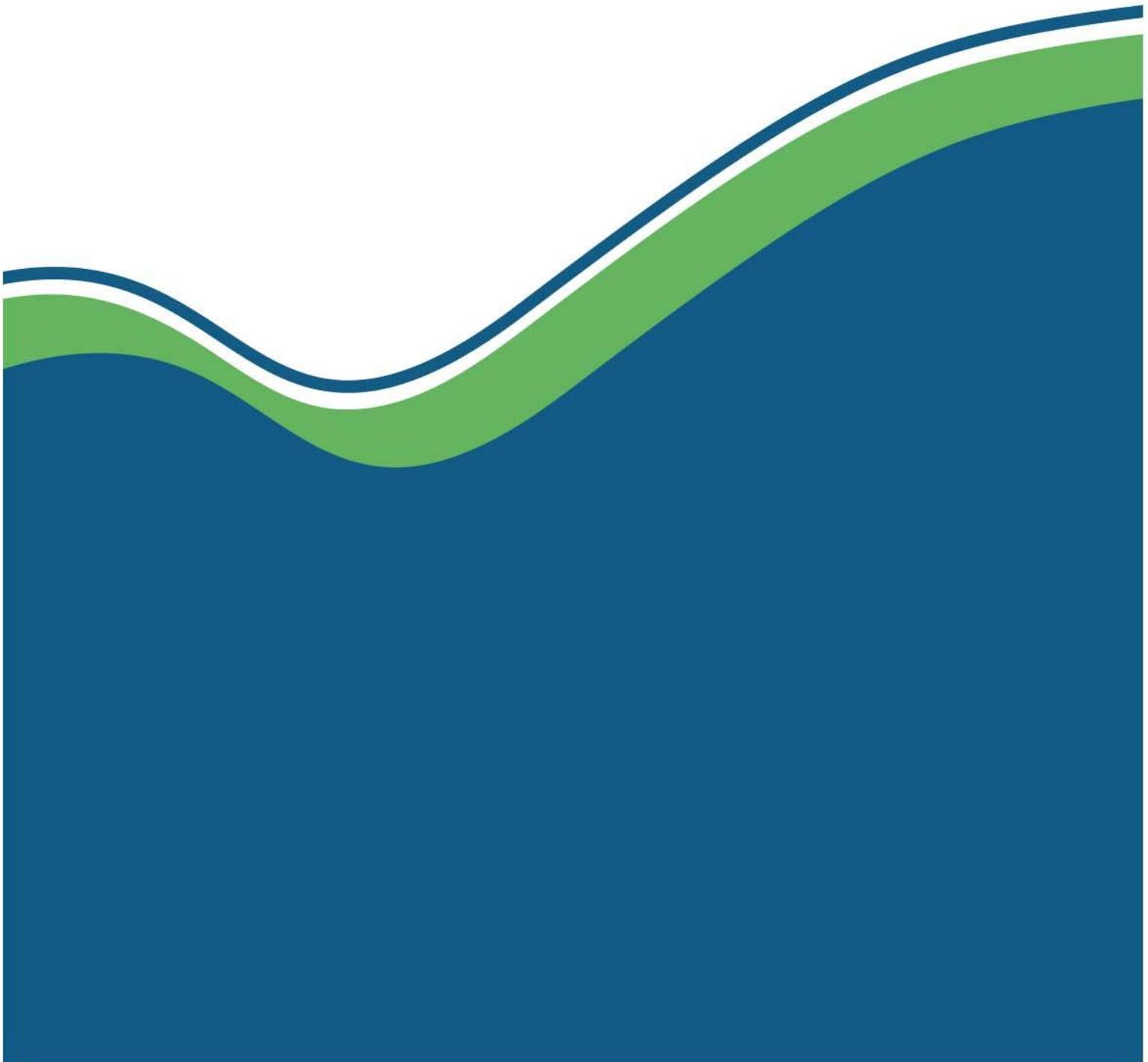
**4. Recommendations**

- 4.1 The Board is asked to note the progress made in managing the Restoration Fund.

**Martin Marsden, Head of Environmental Quality**  
**David Pirie, Acting Director of Science and Strategy**  
**12<sup>th</sup> March 2012**



## Restoration fund: review of progress



## Background

Since 2008, the Scottish Government has provided funding for a Water Environment Restoration Fund, managed by SEPA. The resources provided progressively increased over the first three years from £280k to £1m.

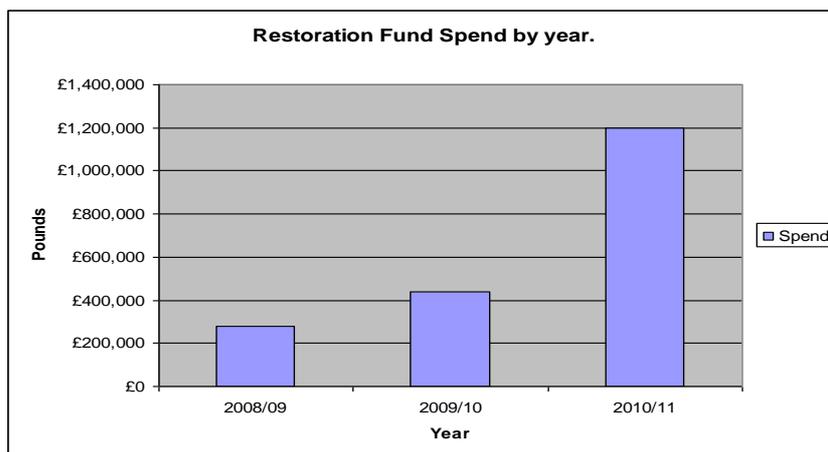
The recent Government spending review has allocated additional funds for “investment in natural assets” and the expectation is that the resources available to the fund will increase towards £2m from 2012/13. This will include a minimum of £500k allocated from SEPA’s budget (provided for restoration from the 2008 spending review).

A Restoration Appraisal Group assesses applications for funding and makes recommendations for funding. The Restoration Appraisal Group is chaired by SEPA and includes representatives from Scottish Natural Heritage (SNH), Scottish Government (SG) and Forestry Commission Scotland (FCS).

The fund is now in its fourth year. It has a committed spend to April 2012 and beyond for a number of projects. Some invasive non native species (INNS) control projects have a predicted spend to 2015. Restoration work is not a quick process; it requires careful planning and phasing and can take a number of years to see projects progress from scoping studies through to works implemented on the ground. It is also highly dependant on effective management and availability of alternative sources of funding.

## Spend

Figure 1 shows the annual grants awarded by the Restoration Fund. The fund has spent its full allocation of resources each year..



**Figure 1:** Restoration fund yearly spend

The fund has made, and continues to make, a significant contribution to implementing the river basin management plans, encouraging and enabling our stakeholders to make improvements to the Scotland’s water environment.

Table 1 shows how the funding has been allocated. Funding to date has supported 74 external projects and three SEPA-led projects. The fund has had applications from across Scotland, although it has seen more coming in from the North East and North Highland Area Advisory Group (AAG) areas. There are 10 projects which cover multiple catchments across Scotland. Two of these are SEPA-led:

- priority catchment restoration scoping studies;
- pan Scotland barrier scoping studies.

The fund has supported numerous scoping studies which are now ready to move to the next stage of design or works. It has often proved difficult to move from scoping studies to works projects because of difficulties of attracting match funding and the technical/management demands associated potentially complex engineering projects. However the group and other key partners are working on remedying these problems.

<b>Project type</b>	<b>Numbers</b>	<b>Costs (k)</b>
Barrier scope	11	205
Barrier works	24	243
Catchment scope	6	173
Multi catchment scope	2	668
Catchment works	1	50
Coastal scope	1	12
Coastal works	2	63
INNS control	8	262
Instream works	6	38
Loch scope	3	32
Urban scope	1	21
Water body scope	9	95
Wetland works	2	15

**Table 1:** Project types and spend

## Environmental benefits

Long term monitoring is key to gauging the success of restoration work, whether that is environmental, economic or social gains. Monitoring for many of the projects is still ongoing so it is not possible to give a full breakdown of environmental gain resulting from the funded work. The next section provides a description of areas of work where it has been possible to make an assessment of environmental benefits and compare these with the associated costs.

## Barrier works

Currently barrier works are the most common project application. They are not the area of greatest spend because most of the works have addressed relatively small-scale barriers. Barrier works do allow for a reasonable estimation of the extent of environmental improvement. Current estimates indicate that 3052km of classified water bodies now have improved fish access and/or habitat, as a result of 14 of the completed weir projects. In many cases this will result in improvements in classification status.

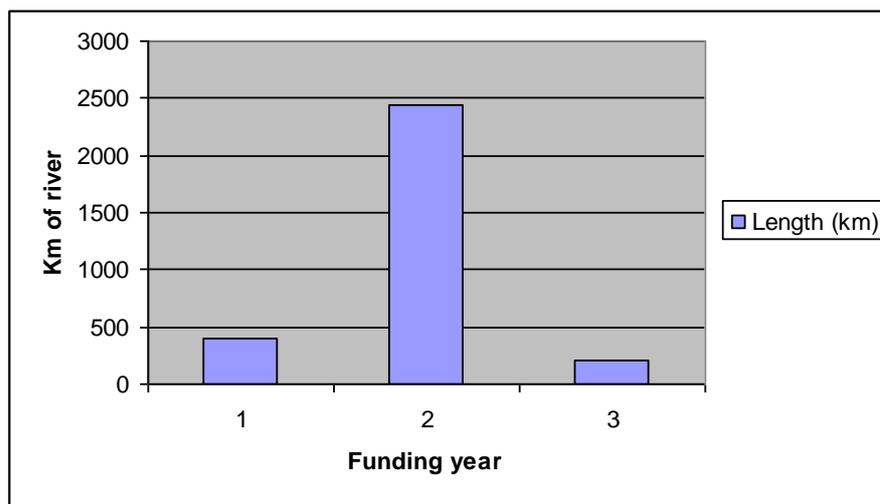


Full barrier to fish passage

The delivery of these benefits equates to less than a £40 per km spend by the fund. This figure does not account for access to upstream non baseline water bodies. If non-baseline water bodies are included, then the length of river with improved fish access increases to approximately 11000 km. The assessment of benefits also does not account for the improvement to habitat downstream as a result of improved sediment transport.

The length of river with improved fish access delivered each year is shown in Figure 2. The length of river with improved access is dependent upon the position of the barrier on a catchment. In 2008/09, work was undertaken on two barriers at the bottom of two large catchments.

Six other completed weir projects were on non-classified rivers. Unclassified small tributaries are often highly important sediment sources and spawning grounds. These projects improved access over 330 km of river.



**Figure 2:** Km length of classified river per year of funding

### INNS Projects

The fund currently supports the Rivers and Fishery Trusts of Scotland (RAFTS) strategic approach to the control of riparian species. This focuses resources on specific catchments. The fund currently supports four multi catchment scale control projects. These projects run in rolling programmes of four years. The number of trusts, catchments / sub catchments, lengths and costs for these four projects are listed in Table 2.



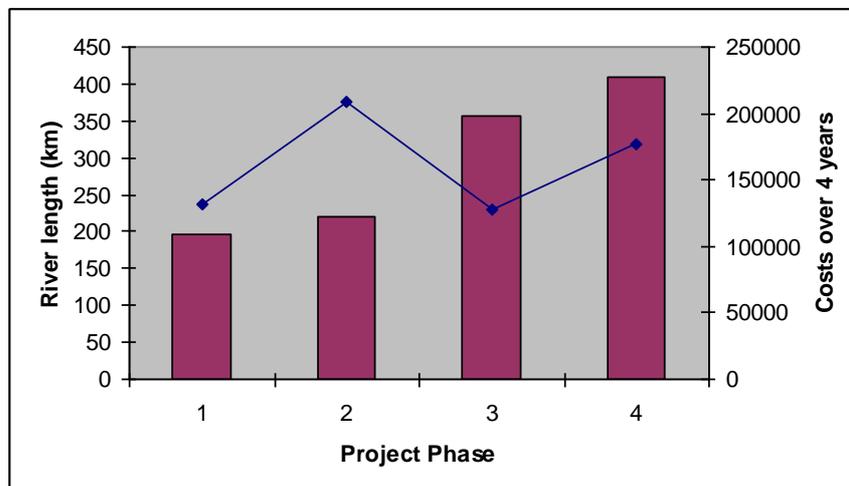
Himalayan Balsam

Project Phases	No of Trusts	No of sub catchments	Approx length of river (km)	Total projected costs over 4 years (k)	Total fund request over 4 years (k)
Phase 1	6	18	196	314	132
Phase 2	6	31	220	519	208
Phase 3	4	9	357	314	128
Phase 4	3	15	410	632	177
<b>Total</b>	<b>13</b>	<b>73</b>	<b>1183</b>	<b>1779</b>	<b>645</b>

**Table 2:** RAFTS INNS project breakdown

SEPA has contributed 33% (£645k) of the funding for INNS projects whose costs total £1.78m. The additional funding for these projects comes from elements of match funding or in-kind contributions. Figure 3 shows the progressive increase in the fund's contribution to INNS control over the past three years.

The amount awarded by the fund equates to about £545 per km spend over four years, or £136 per year per km. This work is currently unlikely to deliver large changes in Water Framework Directive (WFD) status but will increase the “capacity” within water bodies to absorb impacts upon morphology.



**Figure 3:** Costs and river lengths worked on four INNS projects

### Delivering multiple benefits

The primary objective of the fund is to deliver improvements to the aquatic environment by addressing morphological pressures; the aim being to restore the physical form and processes of aquatic ecosystems which will then drive an improvement in ecological conditions and WFD status.

SEPA is using the river basin management plan (RBMP) process to deliver WFD objectives. The overall goal of the River Basin Management Plan (2009-2015) is for 98% of water bodies to be in good or better condition by 2027. To achieve that, water bodies currently at good or high status/potential will be protected from deterioration and action will be taken to improve others at less than good. Delivering morphological restoration can also bring the following secondary benefits:

- improve water quality, e.g. help tackle diffuse pollution;
- increase biodiversity and contribute to Natura obligations;
- provide climate change adaptation/mitigation;
- contribute to flood management;
- enhance recreation (fisheries, water sports);
- provide access and education;
- enhance the landscape;
- reduce the spread of invasive non-native species.

Excluding invasives projects, we have delivered work on over 70 water bodies, with many projects delivering benefits over multiple water bodies.

## Future direction

The levels of funding and the approach taken to funding have evolved over the past four years. The fund is moving from the early years of taking a reactive approach to funding, based simply on the application received, to a more strategic approach which prioritises resources towards the delivery of WFD outcomes. This is being developed in the context of the Restoration Strategy which is being produced by the RBMP process. It should be stressed that the fund intends to retain a reactive component to its work with resources still being directed to supporting projects proposed by third parties.

The Restoration Appraisal Group has developed the following three strategic funding streams.

- **Control of invasives at a catchment-scale led by RAFTS** - the fund is supporting a RAFTS led project which takes a catchment-scale approach to controlling invasives over a four year period. The fund has a presumption against funding applications for invasive control which deal with the problem in a piecemeal fashion. The fund is allocating about £300k per year to this work.
- **Addressing morphological impacts caused by agricultural land management** - the fund is supporting a SNIFFER-led partnership project in four Diffuse Pollution Priority Catchments. The project is developing catchment-scale restoration scoping studies which identify demonstration sites which can be used to sell the potential benefits of river restoration. The fund is allocating about £200k per year to this work.
- **Addressing priority barriers to fish migration** - SEPA is working with RAFTS to jointly prioritise barriers to fish migration. This will provide a national priority list of individual barriers and a priority list of catchments with multiple barriers. The intention is to address easy-win individual barriers but also develop catchment-scale barrier removal projects. The current level of funding is about £100k but is expected to increase substantially in 2012.

A key mechanism for enhancing the value of the fund is actively promoting opportunities for joint match funding. SEPA has supported a European Government LIFE + NATURE bid submitted by SNH. The fund proposes to contribute £800k over four years to this project. If successful, it will double the resources available for restoration to £1.6m. SEPA has also supported a Royal Society for the Protection of Birds (RSPB) led project which is applying for Lottery funding to deliver restoration within the Forth Estuary.

The strategic approaches described above provide important steps forward in our thinking regarding prioritisation of morphology measures and have contributed towards the development of the restoration strategy for Scotland that SEPA is coordinating. The future direction of the Restoration Fund will be discussed in the context of this strategy.

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**31 October 2011**

## **ANNEX I: Examples of multiple benefits projects**

### **The Eddleston Water catchment scope, Tweed catchment.**

This scoping project addresses flooding and land use pressures, as well as delivering improvements in morphology. The project has engaged with the local community and landowners. It firstly developed restoration options, with costs, for sites along the Eddleston Water, then a preferred site with restoration option was selected and a design for the work delivered. This project feeds into a broad programme of works delivered by the forum in the Tweed catchment.



The Eddleston Water



The Eddleston Catchment

### **The Logie Burn restoration, Dee catchment.**

This small-scale re-meandering project primarily addresses historic engineering work, in a Natura designated area of the Dee Catchment and Dinnet lochs. It is also located in a priority catchment for diffuse pollution. It will act as a demonstration project with interpretation boards present. The work has led to other issues being addressed within the sub catchment, e.g. watering points, by engaging landowners in the project.

Work has just completed on site and the next step will be the placement of interpretation signs. It will also be promoted at the Nature Reserves local office.



Logie Burn straightening



Logie Burn restoration work

## River Lundy weir removals

Two barriers on the River Lundy had been identified as a barrier to fish movement. The fund contributed to both the scoping of their removal and their actual removal. The removal phase of the work was done in partnership with the Lochaber Fishery Trust and the Forestry Commission. This was a low cost, partnership project that has removed a pressure from the lower end of a significant catchment on the west coast.



Two sites on the River Lundy before (top pictures) and after (bottom pictures) weir removal

## **RAFTS riparian invasive non native species control projects**

The fund currently supports four phases of INNS control projects across 73 sub catchments and 13 different rivers trusts. These projects tackle Giant Hogweed, Japanese Knotweed, Himalayan Balsam and Rhododendron. All the trusts use the same methods to tackle the plants but employ different resource approaches to the problem dependant on trust, area and extent of volunteer labour. Much of this work is carried out by trust staff and volunteers. Images from three years of treatment of Giant Hogweed on the River Ayr by the Ayrshire Rivers Trust can be seen below.



First year of control



Second year of control



Third year of control

Pictures for this report were supplied by SEPA, supporting Fishery Trusts and the Tweed Forum and must not be reproduced without permission.