

|  |   |  |                           |
|--|---|--|---------------------------|
| <b>Title: Impact Assessment on extending the Environmental Permitting framework to incorporate water abstraction and impoundment licensing and fish pass approvals</b><br><br><b>IA No: Defra 1454</b><br><br><b>Lead department or agency: Department for Environment, Food and Rural Affairs</b><br><br><b>Other departments or agencies: Welsh Government, Environment Agency</b> | <b>Impact Assessment (IA)</b>               |  |                           |
|  | <b>Date: 19/04/2013</b>                     |  |                           |
|  | <b>Stage: FINAL</b>                         |  |                           |
|  | <b>Source of intervention: Domestic</b>     |  |                           |
|  | <b>Type of measure: Primary legislation</b> |  |                           |
| <b>Contact for enquiries: Mike Denbigh, Better Regulation, Area 2C Ergon House. <a href="mailto:Eddie.bailey@defra.gsi.gov.uk">Eddie.bailey@defra.gsi.gov.uk</a>. 020 7238 6294</b>  |   |  |                           |
| <b>Summary: Intervention and Options</b>   |   |  | <b>RPC Opinion: GREEN</b> |

| Cost of Preferred (or more likely) Option  |                            |  |   |
|--|----------------------------|--|---|
| Total Net Present Value  | Business Net Present Value | Net cost to business per year (EANCB on 2009 prices) | In scope of One-In, Measure qualifies as One-Out? |
| £4.2m  | £1.6m                      | -£0.15m  | Yes   OUT   |
| <b>What is the problem under consideration? Why is government intervention necessary?</b><br><p>Existing environmental permitting regimes have previously developed largely in isolation and have, often for good reasons at the time, adopted a variety of approaches to controlling different types of activity even where they are undertaken on the same site. This has led to a system of regulatory control with elements of duplication, which is complex for industry, regulators and others and may act as a barrier to entry for new businesses. Government intervention is necessary to add water abstraction and impoundment licensing and fish pass approvals into the Environmental Permitting framework to reduce the administrative costs of environmental regulation which will promote growth while continuing to achieve the intended outcomes.</p> |                            |  |   |

**What are the policy objectives and the intended effects?**

The first phase of the Environmental Permitting Programme (EPP) integrated Pollution Prevention and Control with waste permits. The second phase of the Programme (EPP2) absorbed further existing regimes and new directives into EPP. Adding Water Abstraction and Impoundment (WAI) and Fish Pass Approvals will further reduce the current administrative costs to businesses and facilitate more cost-effective implementation of new directives.

**What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)**

This Impact Assessment considers three options:

- Option 0 is 'do nothing'. This models the status quo, where the Water Abstraction and Impoundment and Fish Pass Approvals regimes remain outside the Environmental Permitting framework.
- Option 1 is for the regimes to be incorporated within the Environmental Permitting framework. This option is the Government's preferred option as it is expected to cut unnecessary red tape, to continue to protect the environment and human health, and to increase clarity and certainty for all stakeholders on how the system protects the environment.
- Option 2 is for non-legislative changes to be made to the regimes. This option aims to replicate some of the benefits associated with environmental permitting by providing clearer guidance to applicants, but without any associated legislative change.

**Will the policy be reviewed? It will be reviewed. If applicable, set review date: 06/2017**

|  |                  |                    |                    |                   |                        |
|--|------------------|--------------------|--------------------|-------------------|------------------------|
| Does implementation go beyond minimum EU requirements?   |                  |                    | N/A                |                   |                        |
| Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.                       | <b>Micro Yes</b> | <b>&lt; 20 Yes</b> | <b>Small Yes</b>   | <b>Medium Yes</b> | <b>Large Yes</b>       |
| What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent) |                  |                    | <b>Traded: N/A</b> |                   | <b>Non-traded: N/A</b> |

***I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.***

Signed by the responsible SELECT SIGNATORY: Richard Benyon Date: 9 June 2013

# Summary: Analysis & Evidence

# Policy Option 1

Description: Addition of Water Abstraction and Impoundment licensing and Fish Pass Approvals into the Environmental Permitting framework

## FULL ECONOMIC ASSESSMENT

| Price Base<br>Year 2013   | PV Base<br>Year 2013                       | Time Period<br>Years 10 | Net Benefit (Present Value (PV)) (£m)                 |                |                                  |
|---|--|-------------------------|---|----------------|----------------------------------|
|   |  |                         | Low: Optional   | High: Optional | Best Estimate: £4.2m             |
| <b>COSTS (£m)</b>   |  |                         |   |                |                                  |
|   | Total Transition<br>(Constant Price) Years |                         | Average Annual<br>(excl. Transition) (Constant Price) |                | Total Cost<br>(Present Value)    |
| Low   | N/A  |                         | N/A   |                | N/A                              |
| High  | N/A  |                         | N/A   |                | N/A                              |
| Best Estimate   | £0.8m                                      |                         | £0.01m  |                | £0.9m                            |
| <b>Description and scale of key monetised costs by 'main affected groups'</b>   |  |                         |   |                |                                  |
| Implementation costs to the regulator, for example process change, developing standard rules permits, amalgamating public registers, writing guidance and a temporary reduction in process efficiency; and to business, for example investing time to read guidance. A small ongoing cost is forecast for Standard Rules permits being transferred at the point of variation or apportionment for the WAI regime. See evidence base for further details |  |                         |   |                |                                  |
| <b>Other key non-monetised costs by 'main affected groups'</b>  |  |                         |   |                |                                  |
| None identified   |  |                         |   |                |                                  |
| <b>BENEFITS (£m)</b>  |  |                         |   |                |                                  |
|   | Total Transition<br>(Constant Price) Years |                         | Average Annual<br>(excl. Transition) (Constant Price) |                | Total Benefit<br>(Present Value) |
| Low   | N/A  |                         | N/A   |                | N/A                              |
| High  | N/A  |                         | N/A   |                | N/A                              |
| Best Estimate   | £0.9m                                      |                         | £0.7m   |                | £5.1m                            |
| <b>Description and scale of key monetised benefits by 'main affected groups'</b>  |  |                         |   |                |                                  |
| The benefits are mostly reduced administrative costs for industry (including householders) and the regulator. See evidence base for further details.  |  |                         |   |                |                                  |
| <b>Other key non-monetised benefits by 'main affected groups'</b>   |  |                         |   |                |                                  |
| Increased clarity and certainty for everyone. Simplified system for transposing environmental directives.   |  |                         |   |                |                                  |
| Key assumptions/sensitivities/risks   |  |                         |   |                | Discount rate (%)                |
| Key assumptions are that there are generally no changes to who regulates, what is regulated or environmental outcomes. Key risks are around timing of activities requiring permits, and stakeholder engagement. Both of these issues are monitored closely by the Environmental Permitting team.  |  |                         |   |                | 3.5                              |

## BUSINESS ASSESSMENT (Option 1)

|  |                   |              |                          |                             |
|--|-------------------|--------------|--------------------------|-----------------------------|
| <b>Direct impact on business (Equivalent Annual) £m:</b> |                   |              | <b>In scope of OIOO?</b> | <b>Measure qualifies as</b> |
| Costs: £0.03m  | Benefits: -£0.18m | Net: -£0.15m | Yes                      | OUT                         |

# Summary: Analysis & Evidence

# Policy Option 2

Description: Non- legislative changes to the Water Abstraction and Impoundment licensing and Fish Pass Approvals regime to align with the Environmental Permitting regime

## FULL ECONOMIC ASSESSMENT

| Price Base<br>Year 2013 | PV Base<br>Year 2013 | Time Period<br>Years 10 | Net Benefit (Present Value (PV)) (£m) |           |                      |
|-------------------------|----------------------|-------------------------|---------------------------------------|-----------|----------------------|
|                         |                      |                         | Low: N/A                              | High: N/A | Best Estimate: £0.5m |

| COSTS (£m)    | Total Transition<br>(Constant Price) Years | Average Annual<br>(excl. Transition) (Constant Price) | Total Cost<br>(Present Value) |
|---------------|--|---|-------------------------------|
| Low           | N/A  | N/A   | N/A                           |
| High          | N/A  | N/A   | N/A                           |
| Best Estimate | £0.5m                                      | £0.0m   | £0.5m                         |

### Description and scale of key monetised costs by 'main affected groups'

Implementation costs to the regulator, writing guidance; and to business in reading it. See evidence base for further details.

### Other key non-monetised costs by 'main affected groups'

None identified

| BENEFITS (£m) | Total Transition<br>(Constant Price) Years | Average Annual<br>(excl. Transition) (Constant Price) | Total Benefit<br>(Present Value) |
|---------------|--|---|----------------------------------|
| Low           | N/A  | N/A   | N/A                              |
| High          | N/A  | N/A   | N/A                              |
| Best Estimate | £0.2m                                      | £0.1m   | £1.0m                            |

### Description and scale of key monetised benefits by 'main affected groups'

The benefits are mostly minor reduced administrative costs for industry (including householders) and the regulator. These relate to the provision of clearer guidance. See evidence base for further details.

### Other key non-monetised benefits by 'main affected groups'

Increased clarity and certainty for everyone.

Key assumptions/sensitivities/risks

Discount rate (%)

3.5

Key assumptions are that there are generally no changes to who regulates, what is regulated or environmental outcomes. Key risks are around timing of activities requiring permits, and stakeholder engagement. Both of these issues are monitored closely by the Environmental Permitting team.

## BUSINESS ASSESSMENT (Option 2)

|   |                  |             |                   |                      |
|---|------------------|-------------|-------------------|----------------------|
| Direct impact on business (Equivalent Annual) £m: |                  |             | In scope of OIOO? | Measure qualifies as |
| Costs: £0.03m                                     | Benefits: £0.07m | Net: £0.03m | Yes               | OUT                  |

# Evidence Base

## 1.0 Introduction

This is the Impact Assessment (IA) for proposals from the Department for Environment, Food and Rural Affairs (Defra), the Welsh Government (WG) and the Environment Agency for incorporating the Water Abstraction and Impoundment (WAI) licensing and Fish Pass Approvals regime into the wider, risk-based and proportionate single system of environmental permitting and compliance for England and Wales. The IA builds upon that completed as part of the second phase of the Environmental Permitting Programme (EPP) and 'refreshes' the estimates of the associated costs and benefits using the most up-to-date knowledge.

### 1.1 Environmental Permitting Regime

Environmental Permitting comprises a common set of definitions, processes and controls for the permitting of specified activities to prevent pollution. In doing so, it seeks to rationalise various permitting regimes into a common framework that is intended to be easier to understand and use. For example, it allows businesses that would otherwise require several permits for activities falling under the regulations on a single site to have just one permit and enables regulators to focus resources on higher risk activities by reducing the administrative burden. Environmental Permitting also creates a common framework, with generic provisions in the main body of the Regulations, supported by regime specific Schedules, that allows for easier and transparent transposition of EU Directives.

In general, Environmental Permitting does not change the substantive requirements of permits, but it is expected to reduce the administration necessary to deliver those requirements. The benefits are, therefore, generally expressed in terms of savings in administrative costs.

The Environmental Permitting regime places risk at the heart of its licensing structure. The two main types of permits available are listed as follows:

- **Standard rules permits** – these are a set of fixed rules for common, amenable to a risk assessment in advance by the regulator
- **Bespoke permits** - these are written specifically activities which are unique and of higher risk.

In addition, for some activities which do not require permits, there may be a requirement for an exemption:

- **Exemptions** - for activities that don't need a permit. Many of these need to be registered with the Environment Agency

The proposals contained within this impact assessment go towards strengthening the green economy by providing a more transparent and proportionate system for environmental permitting. It is expected that once the water abstraction and impoundment regime and the fish pass approval regime are incorporated into to environmental permitting framework, there will be increased clarity and certainty for business that require permissions for their activities.

### 1.2 Problem under consideration

Currently the Water Abstraction and Impoundment and Fish Pass Approvals regimes are independent from the Environmental Permitting regime. Whilst other regimes which are incorporated into Environmental Permitting derive benefits from a streamlined system with common approaches and language, these regimes do not. It is the intention, therefore, for these regimes to be integrated within the Environmental Permitting regime once the necessary primary legislative powers are secured via the Water Bill. Secondary legislation will then be prepared for public consultation and will include a revised IA at that time.

### 1.3 Rationale for intervention

The introduction of the WAI and Fish Pass Approvals regimes into the Environmental Permitting framework is expected to widen the existing risk-based and proportionate single system of environmental permitting and compliance. It aims to promote growth by cutting unnecessary red tape, to continue to

protect the environment and human health, and to increase clarity and certainty for all stakeholders on how the system protects the environment.

## 2.0 Permitting Regimes

### 2.1 Water Abstraction and Impoundment Licensing

In order to ensure that water resources are safeguarded and that abstractions do not damage the environment, it is necessary for anyone abstracting more than 20 cubic metres (m<sup>3</sup>) of water a day from surface water or groundwater, to obtain an abstraction licence. Unregulated abstraction could lead to water supply shortages, increased river pollution by reducing dilution, damage to wildlife habitats and ultimately, the loss of rivers.

In some cases, licences are not required. Examples of these circumstances include:

- Abstraction for any purpose of less than 20 cubic metres a day;
- Some land drainage operations;
- The filling of vessels (ships or boats) e.g. with drinking or ballast water;
- With the Environment Agency's consent, abstraction exceeding 20 cubic metres a day to test for the presence, quantity or quality of water, in underground strata;
- Water used for fire fighting; and
- Those abstractions operating under an exemption order or some other statutory exemption.

Abstraction licences gives licence holders a right to take a certain quantity of water from a source of supply (inland water such as rivers or streams or an underground source). They also guarantee that no one else who applies for an abstraction licence can take the share of water that is already allocated to the existing licence holder.

An abstraction licence will specify where water can be taken from (the source), the quantities of water which might be abstracted, and information about what the water can be used for. It will also have conditions to protect other water users and the water environment. Abstraction licences are issued for a time-limited period, normally 12 years. These licences carry a presumption of renewal; however, licence holders will need to re-apply for the licence and satisfy the Environment Agency that there is still need for the water and that it has been used efficiently.

Where water is to be abstracted from an underground source, such as from a well or borehole, it is common for a groundwater investigation to be completed prior to applying for an abstraction licence. A groundwater investigation consent will assess the presence, quality and quantity of water available from an underground source. They are designed to assess and test any perceived risks of abstracting highlighting any issues before a licence application can be made. There is no charge for granting a groundwater investigation consent which normally last less than 12 months and are not included in this assessment as they are a precursor to abstraction licensing and not a permitting regime in their own right.

It is currently estimated that there are just over 22,000 extant water abstraction and impoundment licences. The various types of abstraction and impoundment licences are summarised as follows:

- **Full abstraction licence** – for most types of abstraction over 20 cubic metres a day;
- **Transfer licence** – for moving water from one location to another with no intervening use;
- **Temporary licence** – for abstractions over 20 cubic metres a day over a period of less than 28 consecutive days; and
- **Impoundment licence** – for construction, alteration or removal of an impounding structure (dam).

## 2.2 Fish Pass Approvals

Salmon (*Salmo salar L.*) and sea trout (*Salmo trutta L.*) are migratory fish that are very important to the rural economy in England and Wales. Their complex life-cycle involves the migration of juvenile fish from freshwater to the sea and the migration of adults from the sea to freshwater spawning grounds. It has long been recognised that in order to sustain these migratory fish populations unrestricted access to spawning grounds must be ensured. Unfortunately, many man-made obstructions such as dams, weirs and mills, restrict this access to spawning areas.

The optimal design for a fish pass is likely to be site-specific and dependant on a range of different parameters, including the size of the channel and impoundment structure, geomorphological and hydraulic conditions and the target fish species. Therefore fish pass designs can vary in form, function and complexity. They can be divided into six broad categories:

- Pool and weir passes;
- Baffled passes;
- Fish locks;
- Pre-barrages;
- Rock ramp passes; and
- Bypass channels

Statutory responsibility for the approval of fish passes for migratory salmonids lies with the Environment Agency under the Salmon and Freshwater Fisheries Act 1975 ('SAFFA'). Under the act, the Environment Agency has the responsibility in England and Wales to approve fish passes based on their design, form and function.

Statutory responsibility for the approval of passes for eels also lies with the Environment Agency under The Eels (England and Wales) Regulations 2009, which came in to force on 15th January 2010. This Statutory Instrument implements Council Regulation (EC) No 1100/2007 that established measures for the recovery of the stock of European eel.

The approval process is a collaborative effort between areas, regional and national teams within the Environment Agency.

Table 1 summarises the application process within the Environment Agency.

**Table 1: Process of a Fish Pass Approval Application**

| Step in Process | Description   |
|-----------------|---|
| Step 1          | Application is assessed by an area staff member to ensure that it is completed correctly and is in a fit state to pass to the National Fish Pass Panel (NFPP)         |
| Step 2          | A Regional representative of the NFPP will analyse the application (including engineering drawings) to provide a verbal summary description at the next panel meeting |
| Step 3          | The NFPP will consider the application and make necessary recommendation(s)   |
| Step 4          | The local area staff will communicate the decision with the applicant   |

The National Fish Passage Panel (NFPP) was set up to consider and make recommendations to the Environment Agency for the formal authorisation of both internal and externally promoted fish passes. The Panel also acts as a centre of expertise and a focus for other issues relating to fish passage, including screening of intakes and hydropower. It should be noted that the financial authorisation of projects is not part of the role of the Panel but rests with Regional PABs (Project Approval Board).

## 2.3 Natural Resources Wales

In November 2011, the Welsh Government announced that it intended to form a Single Environment Body which will bring together the functions of the Countryside Council for Wales, the Environment Agency Wales, and the Forestry Commission Wales.<sup>1</sup> The Natural Resources Body for Wales (Establishment) Order 2012 established a new statutory body, the Natural Resources Body for Wales (NRW), for the management of Wales' natural resources.

The implications of this change are that the current functions of the Environment Agency are being divided in to two, those relating to England and those relating to Wales (as part of the NRW). Consequently, there would be two regulators with the responsibility for the regimes currently within the remit of the Environment Agency, including the Environmental Permitting regime and the Water Abstraction and Impoundment regime. This IA covers operations taking place in both England and Wales. It is envisaged that the two regulators will continue to manage permitting using the same existing processes.

### Policy Options

This Impact Assessment considers three options. The first option (Policy Option 0) is the '**do nothing**' option (model baseline). This models the status quo, whereby WAI licensing and Fish Pass Approval regimes remain distinct from the Environmental Permitting framework. Accordingly there are no impacts associated with this option which result in costs and benefits.

The first alternative option considered within this IA is for the **WAI and Fish Pass Approval regimes to be incorporated within the Environmental Permitting Regime** (Policy Option 1). This option is the Government's preferred option as it is expected to cut unnecessary red tape, to continue to protect the environment and human health, and to increase clarity and certainty for all stakeholders on how the system protects the environment.

The second alternative option considered in this IA is the option for **non-legislative changes to be made to the WAI and Fish Pass Approval regimes** (Policy Option 2). This option aims to replicate some of the benefits which are likely to be associated with Environmental Permitting, but without any associated legislative change. It is likely that improvements can be made to the existing system (i.e. clearer guidance) which will not require any changes to the legislation.

## 3.0 Costs and Benefits

The following sections outline the costs and benefits associated with each of the policy options.

In the analysis, costs and benefits for Policy Options 1 and 2 are presented relative to the 'do nothing' option (Option 0). However, to provide a clear baseline, Section 3.2 sets out the basis for estimating the costs of the 'do nothing' option. Where possible, the risks and key assumptions relating to the analysis are presented. Specific information is also included in the Annex to this IA.

In recognition of the Welsh Government's intention to create the aforementioned NRW in 2013, the costs and benefits have been split between England and Wales, where this split can be calculated. These are outlined within each section of the IA.

### 3.1 Methodology

The costs and benefits described in this IA have been modelled using an Excel Spreadsheet. The majority of the impacts have been assessed using the Standard Cost Model (SCM). The SCM method is a way of breaking down the costs of regulation into manageable components that can be measured. The model breaks down the costs of complying with regulations into:

- 1) '*substantive compliance costs*', which are the costs incurred in achieving the intended results of the policy (for example, the costs of fitting a filter to comply with environmental requirements), and
- 2) '*administrative burden costs*', which are the administrative activities that businesses are required to conduct in order to comply with the information obligations of central government regulation (for example, the costs of documenting and reporting that the filter has been fitted).

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<sup>1</sup> <http://wales.gov.uk/topics/environmentcountryside/consmanagement/seb/?lang=en>

Administrative burdens are calculated using the formula:  $N \times W \times T$ , where:

$N$  is the number of businesses affected;

$W$  is the cost per hour taken to meet the obligation; and

$T$  is the number of hours taken per year.

The costs and benefits in this IA are measured over a 10 year period, with the net present values (NPVs) shown for the period (NPVs effectively show the value of a stream of costs or benefits over a period of time in 'today's terms'). In line with the HM Treasury Green Book, a 3.5% discount rate has been used to calculate the NPVs.<sup>2</sup>

The costs and benefits presented in this IA are in real terms (2013).

It is assumed that the impacts associated with the preparation of each of the policy options commence in 2013, prior to the implementation in 2014. The last year covered by the impact assessment is therefore 2022.

Following implementation, it is recognised that the impacts associated with the policy options will not have an immediate effect. Based on previous experience, the full impact of costs and benefits associated with the impacts tend to be realised over a period of time, rather than being delivered instantaneously.<sup>3</sup> As such, throughout all of the modelling, a transitional period between 2014 and 2016 is assumed. During 2014 (the first year of implementation) it is expected that 50% of the expected costs and benefits will be realised. In 2015, 75% are expected and in 2016 it is expected that 100% of the costs and benefits will be realised.

There are a number of groups of activities relating to the introduction of each policy option which will result in the accrual of costs and benefits. Table 2, shown below, summarises the main impacts associated with the Policy Options described in Section 0.

**Table 2: High Level Summary of Impacts by Policy Option**

| Impact   | Policy Option 0 – Do Nothing Option | Policy Option 1 – Environmental Permitting Option | Policy Option 2 – Non-legislative Option |
|--|-------------------------------------|---|--|
| Preparation and management of regime changes           | ✘                                   | ✓   | ✓  |
| Requirement to amalgamate public registers             | ✘                                   | ✓   | ✘  |
| Introduction of standard rules permits                 | ✘                                   | ✓   | ✘  |
| Ability to make integrated application transactions    | ✘                                   | ✓   | ✘  |
| Delivery of new guidance                               | ✘                                   | ✓   | ✓  |
| Ability to make single applications for multiple sites | ✘                                   | ✓   | ✘  |

The costs and benefits associated with each of these areas and for each policy option are provided in more detail in the following sections, separated out to consider water abstraction and impoundment licensing and fish pass approvals individually. Where possible, costs and benefits have also been separately calculated for different actors in the economy, these include:

- Industry<sup>4</sup>;
- The regulator<sup>5</sup>;
- Government; and
- Consultees<sup>6</sup>

The assumptions behind this assessment have been derived from conversations with those likely to be affected by the changes. This includes officials from the Environment Agency, Defra and business.

<sup>2</sup> [http://www.hm-treasury.gov.uk/data\\_greenbook\\_index.htm](http://www.hm-treasury.gov.uk/data_greenbook_index.htm)

<sup>3</sup> EPP1 Post Implementation Review

<sup>4</sup> The term 'industry' refers to businesses involved in the WAI regime.

<sup>5</sup> The term 'regulator' is used to describe both the Environment Agency and the NRW

<sup>6</sup> The term 'Consultee' refers to specific bodies that have to be consulted in respect to potential impacts derived from a new permit application.

The assumptions have been generated through a robust process but will be subject to some natural level of uncertainty of the costs and benefits. It is not proportionate to assess the level of this uncertainty given the small magnitude of the impacts.

A breakdown of the detail behind these high level summary impacts listed in Table 2 is provided under the specific regime costs and benefits sections illustrated later in the IA.

## 3.2 Model Baseline

The costs and benefits for each of the policy options assessed in this IA are measured against a common baseline. The baseline is, in effect, a prediction of future events. It predicts the numbers of permits (applications, variations etc) and the profile of these over time. The baseline is also quantified, whereby the annual costs to both the regulator and industry in using the system are estimated.

### 3.2.1 Water Abstraction and Impoundment Regime

For the purposes of this IA, the baseline was considered to be static (i.e. the same number of new licence applications each year for the ten years of the IA). This approach was agreed with representatives from the Environment Agency and officials from Defra as no trend in changes to applications has been observed in the past.

Data for the baseline numbers of applications, renewals, variations, apportionments and revocations has been provided by the Environment Agency. The rise and fall in the number of renewals has been averaged in line with the Environment Agency's best estimate, to give a static baseline number of renewals over the ten years of the impact assessment.

One critical risk with using these numbers relates to an outstanding requirement under the Water Act 2003 to remove the exemption for certain abstraction activities<sup>6</sup>. The exemption will be replaced with New Authorisation abstraction licences which the Environment Agency estimate as 10,000 new licences. These have not been included in this analysis as they are still the subject of a separate IA covering the introduction of New Authorisations. This new IA will be completed by August 2013 and together with new regulations are timetabled to pass through the required consultation and clearance processes by April 2014. If this is successful New Authorisations will be reviewed within the context of this EPR expansion IA at that time.

The cost to the regulator has been calculated using a fixed hourly rate (£36 per hour including overheads), and the time required to perform the transaction.<sup>7</sup> The cost to industry has been calculated using an average wage for staff undertaking new applications, variations and inspections, and the time taken that was documented in the IA undertaken for EPP2.<sup>8</sup>

Table 3, shown below, summarises the average annual quantity of new licence applications expected to be applied for. In addition, the Table also summarises the estimated costs to both the regulator and industry in relation to the applications. It is expected that the regulator will experience costs of just over £3.45m per annum processing new applications. For industry, it is expected that costs of just under £1.28m per annum will be incurred in applying for applications.

**Table 3: Average Quantity of New Applications per Annum**

| Description                    | Quantity Per Annum | Regulator Cost (£) Per Annum | Industry Cost (£) Per Annum |
|--------------------------------|--------------------|------------------------------|-----------------------------|
| New licences                   | 500                | -£2,243,412                  | -£714,521                   |
| Temporary abstraction licences | 40                 | -£61,085                     | -£38,889                    |
| New transfer licences          | 43                 | -£72,663                     | -£47,307                    |
| Renewals                       | 650                | -£1,063,530                  | -£476,734                   |
| Advertising                    | 284                | -£10,089                     | N/A                         |
| <b>TOTAL COST</b>              |                    | <b>-£3,450,779</b>           | <b>-£1,277,451</b>          |

<sup>6</sup> See <http://www.environment-agency.gov.uk/business/topics/water/106901.aspx>

<sup>7</sup> This information has been obtained from the Environment Agency and outlined within the National Permitting Service Business Plan.

<sup>8</sup> Wages taken from the Annual Survey of Hours and Earnings (ASHE), [http://www.statistics.gov.uk/downloads/theme\\_labour/ashe-2010/2010-occ4.pdf](http://www.statistics.gov.uk/downloads/theme_labour/ashe-2010/2010-occ4.pdf)

Please note that numbers may not add due to rounding.

From time-to-time individual licence holders' circumstances will change, which will result in licence conditions needing to be amended.

Table 4 summarises the estimated number of variations, transfers and revocations expected to be made per annum. The Table also summarises the estimated costs for both the regulator and industry. It is expected that costs incurred by the regulator and industry will be approximately £0.75m and £0.30m per annum respectively.

**Table 4: Average Quantity of Variations, Transfers and Revocations per Annum**

| Description  | Quantity Per Annum | Regulator Cost Per Annum | Industry Cost Per Annum |
|--|--------------------|--------------------------|-------------------------|
| Variations (reduction)                                     | 12                 | -£3,927                  | -£1,305                 |
| Administrative variations                                  | 400                | -£130,896                | -£40,936                |
| Apportionment, Vesting, Transfer (of holder)               | 330                | -£119,988                | -£35,883                |
| Revocations  | 260                | -£56,722                 | -£26,608                |
| Formal Variation (includes Full, Transfer and Impoundment) | 180                | -£442,865                | -£198,028               |
| <b>TOTAL COST</b>  |                    | <b>-£754,397</b>         | <b>-£302,760</b>        |

Please note that numbers may not add due to rounding.

In addition to the 'one-off' activities outlined in Tables 3 and 4, there are also a number of activities associated with the ongoing maintenance of the licences. These are summarised in Table 5 below.

**Table 5: Average Quantity of Inspections and Licence Administration Related Activities per Annum**

| Description             | Quantity Per Annum | Regulator Cost Per Annum | Industry Cost Per Annum |
|-------------------------|--------------------|--------------------------|-------------------------|
| Monitoring & compliance | 1,900              | -£202,780                | -£194,446               |
| Inspections             | 8,000              | -£426,906                | -£307,020               |
| Licence administration  | 22,381             | -£159,243                | N/A                     |
| <b>TOTAL COST</b>       |                    | <b>-£788,929</b>         | <b>-£501,466</b>        |

Please note that numbers may not add due to rounding.

As shown in **Table 5**, there are estimated to be just over 22,000 extant licences. Related to these licences, there are also annual inspections and ongoing monitoring and compliance activities. The total cost for all ongoing activities is estimated to be £0.79m per annum for the regulator and £0.50m per annum for industry.

In addition to the ongoing costs associated with maintaining licences, there are also additional 'back office' costs which the Environment Agency currently incurs. These are estimated as follows:

- IT costs (£9.0m per annum);
- EA National Office (£5.7m per annum);
- EA National Operations (£1.6m per annum); and
- EA National Permitting Service & Other Costs (£17.7m per annum)

Accounting for all of these aspects, it is estimated that the cost of the WAI regime is **£38.9m** per annum for the Environment Agency and **£2.1m** per annum for Industry.<sup>9</sup>

Examining the baseline costs separately for England and Wales, estimates provided by the Environment Agency suggest that approximately 7% to 10% of all applications currently fall within Wales. Based on

<sup>9</sup> Please note that these figures do not represent the total costs associated with the WAI regime. There may be activities, such as regional consultation of new applications, which incur costs in addition to those presented above. These activities have not been included in the assessment as they will incur no change as a result of any of the policy options considered in this assessment.

this assumption, and excluding the back office costs, £4.6m of the Environment Agency costs can be attributable to England, and £0.4m to Wales. Because of the centralised approach to the 'back office' functions, it is difficult to provide an estimate of these aspects for England and Wales.

For industry it is estimated that £1.9m of the costs currently fall in England and £0.2m in Wales.

### **3.2.2 Fish Pass Approvals Regime**

Data for the baseline numbers of applications approved has been provided by the Environment Agency. The overall level of new applications received by the Environment Agency is currently low compared to other environmental regimes, with approximately 111 applications being received by the Environment Agency per annum. Of those, a substantial proportion (nearly 50%) currently receives no approval, as the quality of the application is considered poor. As an explanation for this, discussions with the Environment Agency have indicated that because no fee\* is charged for applications, some applicants are seeking free advice regarding proposals, rather than providing authentic applications. It is expected that in the future the rate of applications receiving no approval will reduce to 10% of all applications due to action taken by Environment Agency.

When choosing to grant approval, the Environment Agency has two options, either to grant final approval, or grant provisional approval which is subject to various conditions. Provisional approval tends to be issued to the most high risk applications, and require the operation of the Fish Pass to be conducted before final approval can be granted.

For this assessment, the level of activity in the future is expected to change over time. In the future it is expected that a Fish Pass approval regime will be required for non-migratory fish species (e.g. brown trout) as well as salmonids and eels. This introduction is expected, averaged across all species, to approximately quadruple the overall number of applications received by the Environment Agency. It should be understood, however, that the ability of industry to achieve this level of output is currently unknown and it would be expected that significant levels of training on how to construct fish passes would be required in order achieve such an application rate.

At the same time, the number of fish pass approvals expected to be issued in the future specifically for salmonids is expected to remain static. Discussions with the Environment Agency have highlighted that the number of applications for salmonids is likely to be linked to the number of micro hydro-electric power projects developed in the future. Conversations with the Environment Agency indicate that it is reasonable to assume in this assessment that the level of activity for these applications remains consistent.

Table 6, shown over the page, summarises the number of applications expected to be received per annum.

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\*There are no immediate plans to introduce a charge for fish pass approvals when they are included within the environmental permitting framework.

**Table 6: Average Quantity of New Applications per Annum – England and Wales**

| Description                                  | 2013       | 2014       | 2015       | 2016       | 2017       | 2018       | 2019       | 2020       | 2021       | 2022       |
|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Salmonids Fish Pass approvals, of which:     | 42         | 42         | 42         | 42         | 42         | 42         | 42         | 42         | 42         | 42         |
| Provisional approval is granted              | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          |
| Final approval is granted                    | 32         | 36         | 36         | 36         | 36         | 36         | 36         | 36         | 36         | 36         |
| No approval is granted                       | 8          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          |
| Eel Fish Pass approvals, of which:           | 319        | 319        | 319        | 319        | 319        | 319        | 319        | 319        | 319        | 319        |
| Provisional approval is granted              | 14         | 14         | 14         | 14         | 14         | 14         | 14         | 14         | 14         | 14         |
| Final approval is granted                    | 241        | 273        | 273        | 273        | 273        | 273        | 273        | 273        | 273        | 273        |
| No approval is granted                       | 64         | 32         | 32         | 32         | 32         | 32         | 32         | 32         | 32         | 32         |
| Non-Migratory Fish Pass approvals, of which: | 158        | 158        | 158        | 158        | 158        | 158        | 158        | 158        | 158        | 158        |
| Provisional approval is granted              | 7          | 7          | 7          | 7          | 7          | 7          | 7          | 7          | 7          | 7          |
| Final approval is granted                    | 119        | 135        | 135        | 135        | 135        | 135        | 135        | 135        | 135        | 135        |
| No approval is granted                       | 32         | 16         | 16         | 16         | 16         | 16         | 16         | 16         | 16         | 16         |
| <b>Total</b>                                 | <b>519</b> | <b>519</b> | <b>519</b> | <b>519</b> | <b>519</b> | <b>519</b> | <b>519</b> | <b>519</b> | <b>519</b> | <b>519</b> |

### **3.2.2.1 Baseline Costs**

Based on discussions with the Environment Agency, the costs associated with determining the current rate of applications is estimated to be approximately £11.6k per annum. The average application is considered to cost the Environment Agency approximately £300 to determine, however applications that are not deemed suitable cost less than £50 to process. The costs are generated in the various steps of the application process described in Table 1 on page 6.

Whilst it is acknowledged that there are other activities required to support the regime (i.e. support staff in head offices), it has not been possible to identify additional costs incurred as a result of any back/head office functions. Although these activities do exist, it has not been possible to separate them out from costs relating to other policy functions.

Examining the separate baseline costs for England and Wales, estimates provided by the Environment Agency suggest that approximately 88% of all applications currently fall within England. Based on this assumption, £10.6k of the Environment Agency costs can be attributable to England, and £1.0k to Wales.

The administrative costs to industry in applying for Fish Pass Approvals are considered to be greater than that of the Environment Agency. Discussions with applicants have indicated that an average application currently costs between £350 and £770, with the exact cost dependent on the complexity of the application. Based on the current level of activity, it is therefore estimated that industry currently spends £58.7k a year on the regime. Of those total costs, it is estimated that £51.8k of the costs currently fall in England and £6.9k in Wales.

As outlined in Section 3.2.2, the expected growth in the number of Fish Pass Approval applications is expected to significantly increase the costs for both the Environment Agency and industry.

### **3.2.2.2 Baseline Benefits**

The free passage of migratory fish is a key requirement of the Water Framework Directive, and is being used as an indicator for assessing whether water bodies are meeting Good Ecological Potential or Status. Initial assessments suggest that many waters throughout the UK are at risk of failing to achieve Good Ecological Potential as a result of barriers to fish migration. Well-designed fish passes can help deliver objectives of the Water Framework Directive, by:

- Ensuring that fish can move freely between the river and coastal waters in order to access breeding, nursery or feeding grounds; and
- Allowing passage of other mobile aquatic species, such as invertebrates and plankton.

Fish passes can provide a range of other benefits in addition to those associated to fish passage. Certain types of fish pass can also contribute to longitudinal sediment transport. They can also assist with nutrient transport and oxygenation if the fish pass is associated to an impoundment structure. Where fish passes are installed with interpretive material and public displays, they can also play a role in awareness raising and educating local stakeholders.

## **3.3 Water Abstraction and Impoundment Costs and Benefits**

In the following sub-sections the costs and benefits associated with the Water Abstraction and Impoundment regime are outlined for each of the Policy Options.

### **3.3.1 Preparation Costs and Benefits**

#### **3.3.1.1 Policy Option 1 – Environmental Permitting Option**

Preparation activities are expected to be undertaken in order to prepare for the WAI regime transferring in to the Environmental Permitting regime. Accordingly, all of the activities are expected to take place before the system is implemented in 2014 at the earliest (i.e. 2013). The key activities modelled in this impact assessment comprise of:

- The management of the changes to the WAI regime (cost of 1 FTE at approximately £53k);
- The development of standard permits, exemptions and consultations (at a cost of approximately 73k); and
- The amalgamation of public registers (a cost of approximately £84k)

In addition, there is also expected to be a 2% reduction in process efficiency experienced during this period (at a cost of £96k).<sup>10</sup>

All the preparation costs are expected to fall upon the regulator and total £0.31m. As this is all accrued in the first year of the policy going live, the 10 year net present value (NPV) is also £0.31m.<sup>11</sup>

The largest cost is expected to be associated with amalgamating the public registers that hold the details of permit holders (operators). The water abstraction and impoundment registers are not currently held digitally, and would therefore require a project to achieve this (with due care taken in respect of data protection, as well as data transfer).

Other costs include management of the process changes required in the regulator, and the development of a set of specific standard rules permits, exemptions and associated consultations. A summary of the costs by actor is shown in Table 7.

**Table 7: Policy Option 1 - Summary of Preparation Costs and Benefits**

|                 | Actor        | 2013             | 2014      | 2015      | 2016...   | ...2022   | TOTAL (NPV) |
|-----------------|--------------|------------------|-----------|-----------|-----------|-----------|-------------|
| <b>Costs</b>    | Industry     | £0               | £0        | £0        | £0        | £0        | £0          |
|                 | Regulator    | -£306,796        | £0        | £0        | £0        | £0        | -£306,796   |
|                 | Consultees   | £0               | £0        | £0        | £0        | £0        | £0          |
|                 | Government   | £0               | £0        | £0        | £0        | £0        | £0          |
|                 | <b>Total</b> | <b>-£306,796</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b>   |
| <b>Benefits</b> | Industry     | £0               | £0        | £0        | £0        | £0        | £0          |
|                 | Regulator    | £0               | £0        | £0        | £0        | £0        | £0          |
|                 | Consultees   | £0               | £0        | £0        | £0        | £0        | £0          |
|                 | Government   | £0               | £0        | £0        | £0        | £0        | £0          |
|                 | <b>Total</b> | <b>£0</b>        | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b>   |

Considering the split of these costs between England and Wales, it would be assumed that the same processes would be required for both the Environment Agency and the NRW. Rather than duplicating effort, it would be reasonable for the costs to be shared between the two bodies. In the absence of any formula as to how that might be achieved, the simplest way of splitting these costs would be to use the respective percentages of applications in England and Wales. Based on this approach, the costs to England would be £0.28m and £0.03m for Wales.

### 3.3.1.2 Policy Option 2 – Non-legislative Option

For Policy Option 2, it is expected (based on evidence with the Environment Agency) that only a small number of activities would be required in order to prepare for non-legislative changes to the WAI regime. Unlike Policy Option 1, undertaking Policy Option 2 would not require the development of standard permits, exemptions and consultations. In addition there would be no requirement to amalgamate public registers, as all of these would require legislative change.

The key impact associated with the non-legislative option is the requirement for resources to manage the changes – these would largely comprise of project management resources. This impact is most likely to fall on the regulator in the year prior to changes being made (i.e. 2013).

<sup>10</sup> Note that the assumptions relating to these activities have been identified during discussions with the Environment Agency.

<sup>11</sup> Note that the term 'regulator' is used to describe both the Environment Agency and the NRW

Table 8 summarises the costs and benefits for each of the main actors. As can be observed in the table, the costs associated with Policy Option 2 are small in comparison to Policy Option 1 (less than one tenth).

**Table 8: Policy Option 2 - Summary of Preparation Costs and Benefits**

|                 | Actor        | 2013            | 2014      | 2015      | 2016...   | ...2022   | TOTAL (NPV)     |
|-----------------|--------------|-----------------|-----------|-----------|-----------|-----------|-----------------|
| <b>Costs</b>    | Industry     | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | Regulator    | -£26,658        | £0        | £0        | £0        | £0        | -£26,658        |
|                 | Consultees   | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | Government   | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | <b>Total</b> | <b>-£26,658</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>-£26,658</b> |
| <b>Benefits</b> | Industry     | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | Regulator    | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | Consultees   | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | Government   | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | <b>Total</b> | <b>£0</b>       | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b>       |

Considering the split of these costs between England and Wales, like Policy Option 1, it can be assumed that the same processes would be required for both the Environment Agency and the NRW. Based on this assumption the costs to England will be £25k, and to Wales, £2k.

### 3.3.2 Standard Rules Permits Costs and Benefits

#### 3.3.2.1 Policy Option 1 – Environmental Permitting Option

One of the key benefits associated with the Environmental Permitting regime is the ability for the regulator to provide Standard Rules Permits. If the applicant can conform to a set of parameters that are pre-set by the regulator in the design of the Standard Rules Permit, then a simplified application process can be followed that removes the need for specific risk assessment and consultation, reducing the regulator's and industry's costs.

However, unlike bespoke permits, once granted, Standard Rules Permits cannot be varied and are therefore not suitable for higher risk and more complex activities. It is currently assumed that no inspections are carried out for those applicants opting for Standard Rules Permits. These features also reduce the cost of application and ongoing costs for industry, as well as the regulator.

Information provided by the Environment Agency has indicated that Standard Rules Permits will be developed for a small proportion of low risk licence types in the Water Abstraction and Impoundment regime. Standard Rules Permits will only be available to operators at a 'buying point', i.e. new application, variation, apportionment or renewal. Once developed, it is estimated that 9% of new applications (88 per annum) will opt for Standard Rules Permits rather than bespoke permits.<sup>12</sup> It is also expected that 4% of variations, apportionments and renewals (42 per annum) will also convert to Standard Rules Permits.<sup>13</sup>

Whilst there is a cost associated with converting current permits to Standard Rules Permits at the buying point, the savings far outweigh them leaving an estimated £169,000 annual saving during the operation of the policy. Savings are expected to be released in the following activity areas:

- No inspections (regulator and industry);
- Saving on licence administration costs (regulator only);
- Reduction in costs for obtaining new permits (regulator and industry); and

<sup>12</sup> 9% is derived from the following calculation: % of total applicants eligible for Standard Rules Permits (10%) x % take-up rate for new applicants (90%)

<sup>13</sup> 4% is derived from the following calculation: : % of total applicants eligible for Standard Rules Permits (10%) x % take-up rate for existing licence holders (40%)

- Reduction in the costs of consultation for new permit applications (regulator and consultees)

Examining who the costs and benefits are expected to fall upon, the largest beneficiary is predicted to be the regulator, which is expected to accrue savings from the lack of inspections (£24k per annum) and the cheaper processing of the Standard Rules Permits (£68k per annum).

Industry is also expected to benefit from the same types of savings. The lack of inspections is expected to account for approximately £18k of savings per annum, and the easier method of applying for new applications is expected to result in approximately £32k of savings per annum.

For consultees, the main benefit is expected to be associated with not needing to provide as many consultation responses. These savings are estimated to be £38k per annum.

The 10 year NPV relating to the introduction of Standard Rules Permits is £1.24million.

**Table 9: Policy Option 1 - Summary of Standard Rules Permits Costs and Benefits**

|                 | Actor        | 2013            | 2014           | 2015            | 2016...         | ...2022         | TOTAL (NPV)       |
|-----------------|--------------|-----------------|----------------|-----------------|-----------------|-----------------|-------------------|
| <b>Costs</b>    | Industry     | £0              | -£3,195        | -£4,793         | -£6,390         | -£6,390         | -£44,036          |
|                 | Regulator    | £0              | -£2,221        | -£3,332         | -£4,443         | -£4,443         | -£30,615          |
|                 | Consultees   | -£10,452        | £0             | £0              | £0              | £0              | -£10,452          |
|                 | Government   | £0              | £0             | £0              | £0              | £0              | £0                |
|                 | <b>Total</b> | <b>-£10,452</b> | <b>-£5,416</b> | <b>-£8,125</b>  | <b>-£10,833</b> | <b>-£10,833</b> | <b>-£85,103</b>   |
| <b>Benefits</b> | Industry     | £0              | £24,824        | £37,235         | £49,647         | £49,647         | £342,130          |
|                 | Regulator    | £0              | £45,951        | £68,927         | £91,903         | £91,903         | £633,321          |
|                 | Consultees   | £0              | £19,223        | £28,835         | £38,447         | £38,447         | £264,945          |
|                 | Government   | £0              | £0             | £0              | £0              | £0              | £0                |
|                 | <b>Total</b> | <b>£0</b>       | <b>£88,998</b> | <b>£134,997</b> | <b>£179,997</b> | <b>£179,997</b> | <b>£1,240,395</b> |

Please note that numbers may not add due to rounding.

The division of the costs and benefits between England and Wales would be expected to fall in line with the number of permits within the respective countries. Therefore the total costs in England are expected to be £85k. In Wales the costs are expected to be £7k.

In terms of benefits, for England these are expected to be £1.1m, whilst for Wales they are forecast to be £0.1m.

### 3.3.2.2 Policy Option 2 – Non-legislative Option

The introduction of Standard Rules Permits is understood to require legislation, and is therefore not available within Policy Option 2. As such, no costs and benefits are foreseen for this activity.

### 3.3.3 Integration of Regimes Costs and Benefits

#### 3.3.3.1 Policy Option 1 – Environmental Permitting Option

A proportion of WAI operators also hold permits that are currently already within the Environmental Permitting regime, such as those relating to water discharge activities or groundwater activities. Should the WAI regime be integrated into the Environmental Permitting regime, the cost of processing an application 'transaction' (whether that be a new licence, variation, transfer, apportionment or revocation) is expected to be reduced where the operator has a number of other permits.

In order to estimate the benefits of the integration of regimes a set of assumptions was developed alongside the Environment Agency to represent the likely distribution of permits among sites. The methodology follows that, where there are 2, 3, 4, and 5 permits on a site, if the permitting requirements are precisely replicated across the regimes and these permits can be merged, then there will be incremental savings of up to 50%, 66%, 75%, or 80% respectively on the typical cost of administering permits. This percentage saving is then further moderated by two additional factors:

- a) The common ground between regimes for each task. These assumptions describe the degree to which the administering of environmental permits is common in terms of the information required and therefore time taken; and
- b) The probability that an operator would require tasks, such as application ‘transactions’ or inspections, to be processed at the same time for any site.

Box 1 illustrates how the methodology is used in this IA.

### Box 1: Integration of Permitting Regimes Cost Savings – Methodology

Taking just one example of some of the savings that are achievable by bringing together permitting regimes, it is estimated that 5,938 of the total 22,381 WAI permits (26%) are for sites that also hold other permits.

The model assumes that where a permit is held on a site with one other permit, then under a common permitting approach (and assuming the requirements were identical for both permits) the administrative burdens could be cut in half. In this case, effectively 50% of the associated costs for each regime would be avoided. Similarly, where a site holds three permits, the implication is a 67% overlap (the same tasks repeated under each regime). Since some sites have two permits and others have three or four etc., the weighted average overlap is calculated to be 57%.

This overlap then has to be moderated by the degree of common ground between the different permitting regimes. In terms of time spent transferring permits, the common ground between regimes is estimated to be 60% of the full transfer process.

Overall, these factors suggest that savings of 9% (i.e.  $26\% \times 57\% \times 60\%$ ) from the total baseline permit transfer costs are possible under a common permitting approach.

The savings resulting from these overlaps have then been multiplied by the relevant baseline costs. Impacts are expected to occur in the following areas:

- Savings associated with joint variations for extant licences (regulator and industry);
- Savings associated with joint transfers for extant licences (regulator and industry);
- Savings associated with joint apportionments for extant licences (regulator and industry);
- Savings associated with joint revocations for extant licences (regulator and industry); and
- Savings associated with new applications (regulator and industry)

Table 10 summarises the total costs and benefits by actor. Once a ‘steady state’ has been reached, the total savings are estimated to be £89,000 per annum during the operation of the policy. The 10 year NPV relating to the integration of regimes is £0.6 million.

**Table 10: Policy Option 1 - Summary of Integration of Regimes Costs and Benefits**

|                 | Actor        | 2013      | 2014           | 2015           | 2016...        | ...2022        | TOTAL (NPV)     |
|-----------------|--------------|-----------|----------------|----------------|----------------|----------------|-----------------|
| <b>Costs</b>    | Industry     | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Regulator    | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Consultees   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Government   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | <b>Total</b> | <b>£0</b> | <b>£0</b>      | <b>£0</b>      | <b>£0</b>      | <b>£0</b>      | <b>£0</b>       |
| <b>Benefits</b> | Industry     | £0        | £21,856        | £32,784        | £43,712        | £43,712        | £301,229        |
|                 | Regulator    | £0        | £22,798        | £34,197        | £45,597        | £45,597        | £314,215        |
|                 | Consultees   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Government   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | <b>Total</b> | <b>£0</b> | <b>£44,654</b> | <b>£66,981</b> | <b>£89,309</b> | <b>£89,309</b> | <b>£615,445</b> |

Please note that numbers may not add due to rounding.

Considering the breakdown of the benefits between England and Wales, like the other aspects of the policy it would be expected that the breakdown would be consistent with the proportion of applications within the respective countries. Consequently it is expected that in England the benefits will be £562k (£275k to industry and £287k to the Environment Agency). In Wales the benefits are expected to be more modest, totalling £54k (£26k to industry and £27k to the NRW)

### 3.3.3.2 Policy Option 2 – Non-legislative Option

As the WAI regime will remain distinct from the Environmental Permitting regime, the non-legislative option is not expected to realise any costs or benefits associated with the integration of regimes. Joint applications will not be able to be made for either new or extant activities, and thus no impacts upon the baseline are expected.

### 3.3.4 Simplified Guidance Costs and Benefits

#### 3.3.4.1 Policy Option 1 – Environmental Permitting Option

Bringing guidance for the WAI regime into line with the Environmental Permitting guidance is expected to release benefits to industry as they will be able to understand the guidance more easily and thus spend less time having to re-read it and reduce the overall number of queries.

In order to release the benefits for industry, the regulator would need to invest in re-writing and training staff in the new guidance. Discussions with the Environment Agency have indicated that this is expected to cost £70k and be incurred prior to the WAI regime transferring in to the Environmental Permitting regime. It is also expected that consultees would participate in this process and therefore also incur a cost.

In addition, industry will also need to invest time in reading and understanding the guidance and are therefore expected to incur a cost of £106k per annum (based on an average cost of 2 hours per operator impacted.) from 2014 to 2016 – the first three years of the guidance being made available.

Benefits are expected to accrue through a reduction in time applying for licence transactions (i.e. new applications, variations, revocations etc.) than would otherwise have been occurred. It is therefore modelled that for each of the licence transactions, a 5% saving in time is achieved by industry as a result of the new guidance.

Table 11 summarises total costs and benefits by actor. The overall 10 year NPV relating to simplified guidance is approximately £127k.

**Table 11: Policy Option 1 - Summary of the Simplified Guidance Costs and Benefits**

|                 | Actor        | 2013            | 2014             | 2015             | 2016...          | ...2022        | TOTAL (NPV)      |
|-----------------|--------------|-----------------|------------------|------------------|------------------|----------------|------------------|
| <b>Costs</b>    | Industry     | £0              | -£106,144        | -£106,144        | -£106,144        | £0             | -£297,376        |
|                 | Regulator    | -£70,797        | £0               | £0               | £0               | £0             | -£70,797         |
|                 | Consultees   | -£5,332         | £0               | £0               | £0               | £0             | -£5,332          |
|                 | Government   | £0              | £0               | £0               | £0               | £0             | £0               |
|                 | <b>Total</b> | <b>-£76,128</b> | <b>-£106,144</b> | <b>-£106,144</b> | <b>-£106,144</b> | <b>£0</b>      | <b>-£373,504</b> |
| <b>Benefits</b> | Industry     | £0              | £36,289          | £54,434          | £72,579          | £72,579        | £500,155         |
|                 | Regulator    | £0              | £0               | £0               | £0               | £0             | £0               |
|                 | Consultees   | £0              | £0               | £0               | £0               | £0             | £0               |
|                 | Government   | £0              | £0               | £0               | £0               | £0             | £0               |
|                 | <b>Total</b> | <b>£0</b>       | <b>£36,289</b>   | <b>£54,434</b>   | <b>£72,579</b>   | <b>£72,579</b> | <b>£500,155</b>  |

Please note that numbers may not add due to rounding.

Considering the split between the Welsh and English impacts, the separation has been calculated based on the estimated number of licence holders within each country. Consequently, the overall costs in England are estimated to be £341k, whilst the benefits are estimated to be £456k.

For Wales the estimated costs are estimated to be £33k, whilst the benefits are forecast to be £44k.

### 3.3.4.2 Policy Option 2 – Non-legislative Option

One of the key changes associated with the non-legislative option is the drafting of new guidance. Although the WAI and Environmental Permitting regimes will be distinct, guidance could be crafted as to ensure that the terminologies and processes contained in the two regimes can be aligned and understood more easily than at present.

As such, it is expected that the costs and benefits associated with this policy will be identical to Policy Option 1.

**Table 12: Policy Option 2 - Summary of the Simplified Guidance Costs and Benefits**

|                 | Actor        | 2013            | 2014             | 2015             | 2016...          | ...2022        | TOTAL (NPV)      |
|-----------------|--------------|-----------------|------------------|------------------|------------------|----------------|------------------|
| <b>Costs</b>    | Industry     | £0              | -£106,144        | -£106,144        | -£106,144        | £0             | -£297,376        |
|                 | Regulator    | -£70,797        | £0               | £0               | £0               | £0             | -£70,797         |
|                 | Consultees   | -£5,332         | £0               | £0               | £0               | £0             | -£5,332          |
|                 | Government   | £0              | £0               | £0               | £0               | £0             | £0               |
|                 | <b>Total</b> | <b>-£76,128</b> | <b>-£106,144</b> | <b>-£106,144</b> | <b>-£106,144</b> | <b>£0</b>      | <b>-£373,504</b> |
| <b>Benefits</b> | Industry     | £0              | £36,289          | £54,434          | £72,579          | £72,579        | £500,155         |
|                 | Regulator    | £0              | £0               | £0               | £0               | £0             | £0               |
|                 | Consultees   | £0              | £0               | £0               | £0               | £0             | £0               |
|                 | Government   | £0              | £0               | £0               | £0               | £0             | £0               |
|                 | <b>Total</b> | <b>£0</b>       | <b>£36,289</b>   | <b>£54,434</b>   | <b>£72,579</b>   | <b>£72,579</b> | <b>£500,155</b>  |

Please note that numbers may not add due to rounding.

The impacts for Policy Option 2 are expected to be distributed in the same fashion as those for Policy Option 1. Consequently, the overall costs in England are estimated to be £341k, whilst the benefits are estimated to be £456k.

For Wales the costs are estimated to be £33k, whilst the benefits are forecast to be £44k.

### 3.3.5 Single Applications for Multiple Sites Costs and Benefits

#### 3.3.5.1 Policy Option 1 – Environmental Permitting Option

One advantage of the Environmental Permitting regime is the option for a single application to be made for common activities on a number of sites. As the WAI regime is expected to experience few opportunities where this will be possible, the potential saving in this area is expected to be small.

Based on conversations with the Environment Agency, it is expected that only 10 applications of this nature will be made each year. Consequently, the 10 year NPV is expected to be £21,000. Table 13 summarises the costs and benefits for each actor.

**Table 13: Policy Option 1 - Summary of the Single Applications for Multiple Sites Costs and Benefits**

|                 | Actor        | 2013      | 2014          | 2015          | 2016...       | ...2022       | TOTAL (NPV)    |
|-----------------|--------------|-----------|---------------|---------------|---------------|---------------|----------------|
| <b>Costs</b>    | Industry     | £0        | £0            | £0            | £0            | £0            | £0             |
|                 | Regulator    | £0        | -£66          | -£100         | -£133         | -£133         | -£916          |
|                 | Consultees   | £0        | £0            | £0            | £0            | £0            | £0             |
|                 | Government   | £0        | £0            | £0            | £0            | £0            | £0             |
|                 | <b>Total</b> | <b>£0</b> | <b>-£66</b>   | <b>-£100</b>  | <b>-£133</b>  | <b>-£133</b>  | <b>-£916</b>   |
| <b>Benefits</b> | Industry     | £0        | £1,554        | £2,331        | £3,108        | £3,108        | £21,419        |
|                 | Regulator    | £0        | £0            | £0            | £0            | £0            | £0             |
|                 | Consultees   | £0        | £0            | £0            | £0            | £0            | £0             |
|                 | Government   | £0        | £0            | £0            | £0            | £0            | £0             |
|                 | <b>Total</b> | <b>£0</b> | <b>£1,554</b> | <b>£2,331</b> | <b>£3,108</b> | <b>£3,108</b> | <b>£21,419</b> |

Like the other areas of costs and benefits, the costs and benefits for Wales and England are expected to be apportioned by the number of licences within each country. For Wales, the overall costs are expected to be £80 and the benefits £1.9k. For England the costs are forecast to be £835 and the benefits £19.5k.

### 3.3.5.2 Policy Option 2 – Non-legislative Option

Current legislation does not specify that a single application can be made for multiple activities.<sup>14</sup> Therefore, in the absence of legislative change, it is understood that this change would not be available for this option. Accordingly no costs and benefits have been identified.

## 3.3.6 Other Costs and Benefits

### 3.3.6.1 Policy Option 1 – Environmental Permitting Option

In addition to the costs and benefits outlined in the previous sections, there are a small number of benefits related to the Environmental Permitting Option which cannot be placed in to a single discrete category – accordingly these have been presented in this section.

As a result of implementing Policy Option 1, discussions with the Environment Agency have indicated that it is expected that the average number of regulatory questions received by the regulator, relating to the relevant regulations, will be reduced by 60%. This assumption reflects the previous experience with other regimes being incorporated within the Environmental Permitting system, and clearer guidance being made available.

In addition, it is also assumed that the Environment Agency and NRW will experience ongoing administrative savings associated with the administering the WAI regime as a result of incorporating the regime within the Environmental Permitting system. These savings are estimated to amount to 5% of the baseline costs of administering the WAI regime. Again, this estimate is based on previous experience with other regimes being incorporated within the Environmental Permitting system. The identification of activities that release these savings is currently unclear, however, it would be expected that organisation changes within the regulators would ensure that the utilisation of staff, for example, is further maximised.

Table 14 summarises the costs and benefits for each actor. The 10 year NPV is estimated to be £1.7 million. All of these savings are expected to fall on the Environment Agency, with the most significant savings (£152k per annum) being realised via the administrative savings described above.

<sup>14</sup> See <http://www.legislation.gov.uk/ukxi/2006/641/regulation/4/made>

**Table 14: Policy Option 1 - Summary of Other Costs and Benefits**

|                 | Actor        | 2013      | 2014            | 2015            | 2016...         | ...2022         | TOTAL (NPV)       |
|-----------------|--------------|-----------|-----------------|-----------------|-----------------|-----------------|-------------------|
| <b>Costs</b>    | Industry     | £0        | £0              | £0              | £0              | £0              | £0                |
|                 | Regulator    | £0        | £0              | £0              | £0              | £0              | £0                |
|                 | Consultees   | £0        | £0              | £0              | £0              | £0              | £0                |
|                 | Government   | £0        | £0              | £0              | £0              | £0              | £0                |
|                 | <b>Total</b> | <b>£0</b> | <b>£0</b>       | <b>£0</b>       | <b>£0</b>       | <b>£0</b>       | <b>£0</b>         |
| <b>Benefits</b> | Industry     | £0        | £0              | £0              | £0              | £0              | £0                |
|                 | Regulator    | £0        | £120,738        | £181,107        | £241,476        | £241,476        | £1,664,063        |
|                 | Consultees   | £0        | £0              | £0              | £0              | £0              | £0                |
|                 | Government   | £0        | £0              | £0              | £0              | £0              | £0                |
|                 | <b>Total</b> | <b>£0</b> | <b>£120,738</b> | <b>£181,107</b> | <b>£241,476</b> | <b>£241,476</b> | <b>£1,664,063</b> |

Considering the impacts on England and Wales, the administrative saving is perhaps the most uncertain area when considering the division between the two countries. The NRW has yet to be formed, and therefore it is unclear what the working arrangements it will adopt with respect to administrative functions. In all likelihood, there would be some savings associated with including the WAI regime alongside the Environmental Permitting regime; however, the magnitude of these is currently unknown.

With this uncertainty, the most appropriate method of splitting the savings is to use the number of applications in Wales and England. Based on that apportionment, the savings in Wales are forecast to be £146k, and the savings in England are forecast to be £1.52m.

### 3.3.6.2 Policy Option 2 – Non-legislative Option

Like Policy Option 1, Policy Option 2 (the non-legislative option) is expected to incur impacts over and above those outlined in the previous sections. These cannot be placed in to a single discrete category and as such are included here.

As a result of clearer guidance being provided (see Section 3.3.1.2), conversations with the Environment Agency have indicated that it is expected that the average number of regulatory questions received by the regulator relating to the relevant regulations will be reduced by 7.5%. As shown in Table 15, this would result in £46k of benefits for the regulator being realised each year.

**Table 15: Policy Option 2 - Summary of Other Costs and Benefits**

|                 | Actor        | 2013      | 2014           | 2015           | 2016...        | ...2022        | TOTAL (NPV)     |
|-----------------|--------------|-----------|----------------|----------------|----------------|----------------|-----------------|
| <b>Costs</b>    | Industry     | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Regulator    | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Consultees   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Government   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | <b>Total</b> | <b>£0</b> | <b>£0</b>      | <b>£0</b>      | <b>£0</b>      | <b>£0</b>      | <b>£0</b>       |
| <b>Benefits</b> | Industry     | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Regulator    | £0        | £22,472        | £33,708        | £44,944        | £44,944        | £309,717        |
|                 | Consultees   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Government   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | <b>Total</b> | <b>£0</b> | <b>£22,472</b> | <b>£33,708</b> | <b>£44,944</b> | <b>£44,944</b> | <b>£309,717</b> |

Considering the separate impacts for Wales and England, it is forecast that £27k will be accrued by the former and £283k by the latter.

### 3.3.7 Summary of Costs and Benefits

#### 3.3.7.1 Policy Option 1 – Environmental Permitting Option

As a result of implementing Policy Option 1, over the 10 year period, a net benefit of £3.3m in NPV terms is anticipated. Across all actors, 25% (£0.8m) are expected to be received by industry. The largest beneficiary is expected to be the regulator, which is expected to receive 67% (£2.2m) of the total benefits. Consultees are expected to receive 8% (£0.2m) of the benefits, whilst no costs or benefits are expected for Government.<sup>15</sup>

**Table 16: Policy Option 1 - Summary of Total Net Costs and Benefits by Actor**

| Actor              | 2013             | 2014            | 2015            | 2016            | 2017...         | ...2022         | TOTAL (NPV)       |
|--------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| Industry           | £0               | -£24,816        | £15,848         | £56,512         | £162,656        | £162,656        | £823,522          |
| Environment Agency | -£377,592        | £187,200        | £280,800        | £374,400        | £374,400        | £374,400        | £2,202,476        |
| Consultees         | -£15,784         | £19,223         | £28,835         | £38,447         | £38,447         | £38,447         | £249,161          |
| Government         | £0               | £0              | £0              | £0              | £0              | £0              | £0                |
| <b>Total Net</b>   | <b>-£393,376</b> | <b>£181,608</b> | <b>£325,483</b> | <b>£469,359</b> | <b>£575,502</b> | <b>£575,502</b> | <b>£3,275,159</b> |

A summary of the net costs and benefits by activity area is shown in Table 17. The largest share of savings is expected to result from 'other costs and benefits' activities (£1.7m) as described in Section 3.3.6.1.

In terms of other areas of savings, the next largest share is derived from the introduction of Standard Rules Permits (£1.2m) followed by the integration of regimes (£0.6m). The only activity area expected to result in a net cost is the preparatory work laying the ground for the policy itself (-£0.3m).

**Table 17: Policy Option 1 - Summary of Total Costs and Benefits by Activity Area**

| Activity                               | 2013             | 2014            | 2015            | 2016            | 2017...         | ...2022         | TOTAL (NPV)       |
|--|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| Preparation                            | -£306,796        | £0              | £0              | £0              | £0              | £0              | -£306,796         |
| Standard Rules Permits                 | -£10,452         | £84,582         | £126,873        | £169,164        | £169,164        | £169,164        | £1,155,292        |
| Integration of Regimes                 | £0               | £44,654         | £66,981         | £89,309         | £89,309         | £89,309         | £615,445          |
| Simplified Guidance                    | -£76,128         | -£69,854        | -£51,710        | -£33,565        | £72,579         | £72,579         | £126,651          |
| Single Applications for Multiple Sites | £0               | £1,488          | £2,231          | £2,975          | £2,975          | £2,975          | £20,503           |
| Other Costs and Benefits               | £0               | £120,738        | £181,107        | £241,476        | £241,476        | £241,476        | £1,664,063        |
| <b>Total Net</b>                       | <b>-£393,376</b> | <b>£181,608</b> | <b>£325,483</b> | <b>£469,359</b> | <b>£575,502</b> | <b>£575,502</b> | <b>£3,275,159</b> |

<sup>15</sup> Please note that 'sunk costs' (i.e. those costs already occurred prior to 2012) are not included in this assessment and thus no costs or benefits are forecast for Government.

Considering the distribution of impacts between England and Wales, it is expected that the majority of benefits are expected to fall within the England. This is due to the majority of the applications being held in England. The total NPV for England is demonstrated in Table 18. It is forecast that the 10 year NPV will be £3.0m.

For Wales, the savings are forecast to be more modest. Table 19 shows that the 10 year NPV is forecast to be £0.3m.

**Table 18: Policy Option 1 - Summary of Total Costs and Benefits by Activity Area - England**

| Activity                               | 2013            | 2014            | 2015            | 2016            | 2017...         | ...2022         | TOTAL (NPV)       |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| Preparation                            | £279,951        | £0              | £0              | £0              | £0              | £0              | -£279,951         |
| Standard Rules Permits                 | £9,538          | £77,181         | £115,771        | £154,362        | £154,362        | £154,362        | £1,054,204        |
| Integration of Regimes                 | £0              | £40,747         | £61,121         | £81,494         | £81,494         | £81,494         | £561,593          |
| Simplified Guidance                    | £69,467         | -£63,742        | -£47,185        | -£30,628        | £66,228         | £66,228         | £115,569          |
| Single Applications for Multiple Sites | £0              | £1,357          | £2,036          | £2,715          | £2,715          | £2,715          | £18,709           |
| Other Costs and Benefits               | £0              | £110,173        | £165,260        | £220,347        | £220,347        | £220,347        | £1,518,458        |
| <b>Total Net</b>                       | <b>£358,956</b> | <b>£165,717</b> | <b>£297,003</b> | <b>£428,290</b> | <b>£525,146</b> | <b>£525,146</b> | <b>£2,988,583</b> |

**Table 19: Policy Option 1 - Summary of Total Costs and Benefits by Activity Area - Wales**

| Activity                               | 2013            | 2014           | 2015           | 2016           | 2017...        | ...2022        | TOTAL (NPV)     |
|--|-----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| Preparation                            | -£26,845        | £0             | £0             | £0             | £0             | £0             | -£26,845        |
| Standard Rules Permits                 | £915            | £7,401         | £11,101        | £14,802        | £14,802        | £14,802        | £101,088        |
| Integration of Regimes                 | £0              | £3,907         | £5,861         | £7,814         | £7,814         | £7,814         | £53,851         |
| Simplified Guidance                    | £6,661          | -£6,112        | -£4,525        | -£2,937        | £6,351         | £6,351         | £11,082         |
| Single Applications for Multiple Sites | £0              | £130           | £195           | £260           | £260           | £260           | £1,794          |
| Other Costs and Benefits               | £0              | £10,565        | £15,847        | £21,129        | £21,129        | £21,129        | £145,606        |
| <b>Total Net</b>                       | <b>-£34,420</b> | <b>£15,891</b> | <b>£28,480</b> | <b>£41,069</b> | <b>£50,356</b> | <b>£50,356</b> | <b>£286,576</b> |

### 3.3.7.2 Policy Option 2 – Non-legislative Option

Over a 10 year period, Policy Option 2 is expected to result in approximately £400k of benefits in NPV terms. The majority of the benefits are expected to accrue to the Environment Agency (£212k), whilst approximately £202k of benefits is expected to flow to industry. Consultees are expected to experience a

small net cost (-£5k) as a result of the implementation of the policy. No costs or benefits are expected for Government.

**Table 20: Policy Option 2 - Summary of Total Net Costs and Benefits by Actor**

| Actor              | 2013             | 2014            | 2015            | 2016           | 2017..          | ...2022         | TOTAL (NPV)     |
|--------------------|------------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|
| Industry           | £0               | -£69,854        | -£51,710        | -£33,565       | £72,579         | £72,579         | £202,779        |
| Environment Agency | -£97,454         | £22,472         | £33,708         | £44,944        | £44,944         | £44,944         | £212,263        |
| Consultees         | -£5,332          | £0              | £0              | £0             | £0              | £0              | -£5,332         |
| Government         | £0               | £0              | £0              | £0             | £0              | £0              | £0              |
| <b>Total Net</b>   | <b>-£102,786</b> | <b>-£47,382</b> | <b>-£18,002</b> | <b>£11,379</b> | <b>£117,522</b> | <b>£117,522</b> | <b>£409,711</b> |

Table 21, shown below, summarises the costs and benefits associated with the Policy Option for each of the activity areas. The largest share of the benefits (£310k) is expected to result from a reduction in the average number of regulatory questions received by the Environment Agency. There are also expected to be benefits associated with the introduction of simplified guidance (£127k), as well as a small cost associated with the preparation of the policy (-£27k)

**Table 21: Policy Option 2 - Summary of Total Costs and Benefits by Activity Area**

| Activity                 | 2013             | 2014            | 2015            | 2016           | 2017..          | ...2022         | TOTAL (NPV)     |
|--------------------------|------------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|
| Preparation              | -£26,658         | £0              | £0              | £0             | £0              | £0              | -£26,658        |
| Simplified Guidance      | -£76,128         | -£69,854        | -£51,710        | -£33,565       | £72,579         | £72,579         | £126,651        |
| Other Costs and Benefits | £0               | £22,472         | £33,708         | £44,944        | £44,944         | £44,944         | £309,717        |
| <b>Total Net</b>         | <b>-£102,786</b> | <b>-£47,382</b> | <b>-£18,002</b> | <b>£11,379</b> | <b>£117,522</b> | <b>£117,522</b> | <b>£409,711</b> |

Considering the impacts for England and Wales, like Policy Option 1, the main proportion of benefits are expected to flow to England. The 10 year NPV is forecast to be £374k for England and £36k for Wales. These are modest savings when compared to Policy Option 1.

**Table 22: Policy Option 2 - Summary of Total Costs and Benefits by Activity Area - England**

| Activity                 | 2013            | 2014            | 2015            | 2016           | 2017..          | ...2022         | TOTAL (NPV)     |
|--------------------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|
| Preparation              | -£24,325        | £0              | £0              | £0             | £0              | £0              | -£24,325        |
| Simplified Guidance      | -£69,467        | -£63,742        | -£47,185        | -£30,628       | £66,228         | £66,228         | £115,569        |
| Other Costs and Benefits | £0              | £20,506         | £30,758         | £41,011        | £41,011         | £41,011         | £282,617        |
| <b>Total Net</b>         | <b>-£93,792</b> | <b>-£43,236</b> | <b>-£16,427</b> | <b>£10,383</b> | <b>£107,239</b> | <b>£107,239</b> | <b>£373,861</b> |

**Table 23: Policy Option 2 - Summary of Total Costs and Benefits by Activity Area - Wales**

| Activity                 | 2013           | 2014           | 2015           | 2016        | 2017..         | ...2022        | TOTAL (NPV)    |
|--------------------------|----------------|----------------|----------------|-------------|----------------|----------------|----------------|
| Preparation              | -£2,333        | £0             | £0             | £0          | £0             | £0             | -£2,333        |
| Simplified Guidance      | -£6,661        | -£6,112        | -£4,525        | -£2,937     | £6,351         | £6,351         | £11,082        |
| Other Costs and Benefits | £0             | £1,966         | £2,949         | £3,933      | £3,933         | £3,933         | £27,100        |
| <b>Total Net</b>         | <b>-£8,994</b> | <b>-£4,146</b> | <b>-£1,575</b> | <b>£996</b> | <b>£10,283</b> | <b>£10,283</b> | <b>£35,850</b> |

### 3.4 Fish Pass Approval Costs and Benefits

In the following sub-sections the costs and benefits associated with the Fish Pass Approval regime are outlined for each of the Policy Options.

#### 3.4.1 Preparation Costs and Benefits

##### 3.4.1.1 Policy Option 1 – Environmental Permitting Option

Preparation activities are expected to be undertaken in order to prepare for the Fish Pass Approval regime transferring in to the Environmental Permitting regime. Accordingly, all of the activities are expected to take place before the system is implemented in 2014 (i.e. 2013). In co-ordination with the Environment Agency, the key activities identified and modelled in this impact assessment comprises of:

- The management of the changes to the Fish Pass Approval regime (5% of an FTE at a cost of approximately £3k);
- The development of standard permits, exemptions and consultations (at a cost of £10k); and
- The amalgamation of public registers (at a cost of £17k).

All the preparation costs are expected to fall upon the regulator and total £32k.<sup>16</sup> As this is all accrued in the first year of the move to the EP regime, the 10 year net present value (NPV) is also £32k.

The largest cost is expected to be associated with amalgamating the data into a public register that holds the details of permit holders (operators). Conversations with the Environment Agency have indicated that there is currently no enterprise system or application system which records Fish Pass Approvals. It is understood that a database is currently managed and under this option, there would be requirement to transfer data from this database to create a public register (with due care taken in respect of data protection, as well as data transfer).

In addition, there is expected to be a reduction in process efficiency experienced during this period. This reduction in process efficiency is estimated to be 2% of application processing costs during the first year.

Other costs include management of the process changes required in the regulator, and the development of a set of specific standard rules permits, exemptions and associated consultations. A summary of the costs by actor is shown in Table 24.

**Table 24: Policy Option 1 - Summary of Preparation Costs and Benefits**

|              | Actor      | 2013     | 2014 | 2015 | 2016... | ...2022 | TOTAL (NPV) |
|--------------|------------|----------|------|------|---------|---------|-------------|
| <b>Costs</b> | Industry   | £0       | £0   | £0   | £0      | £0      | £0          |
|              | Regulator  | -£32,489 | £0   | £0   | £0      | £0      | -£32,489    |
|              | Consultees | £0       | £0   | £0   | £0      | £0      | £0          |

<sup>16</sup> Note that the term 'regulator' is used to describe both the Environment Agency and the NRW

|                 |              |                 |           |           |           |           |                 |
|-----------------|--------------|-----------------|-----------|-----------|-----------|-----------|-----------------|
|                 | Government   | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | <b>Total</b> | <b>-£32,489</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>-£32,489</b> |
| <b>Benefits</b> | Industry     | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | Regulator    | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | Consultees   | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | Government   | £0              | £0        | £0        | £0        | £0        | £0              |
|                 | <b>Total</b> | <b>£0</b>       | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b>       |

With regard to the split of these costs between England and Wales, it would be assumed that the same processes would be required for both the Environment Agency and the NRW. Rather than duplicating effort, it would be reasonable for the costs to be shared between the two bodies. In the absence of any agreed formula as to how that might be achieved, the simplest way of splitting these costs would be to use the respective percentages of applications in England and Wales. Based on this approach, the costs to England would be £29k and £4k for Wales.

#### 3.4.1.2 Policy Option 2 – Non-legislative Option

For Policy Option 2, information provided by the Environment Agency has indicated that only a small number of activities would be required in order to prepare for non-legislative changes to the WAI regime. Unlike Policy Option 1, undertaking Policy Option 2 would not require the development of standard permits, exemptions and consultations. In addition there would be no requirement to amalgamate public registers, as all of these would require legislative change.

The key impact associated with the non-legislative option is the requirement for resources to manage the changes – these would largely comprise of project management resources. This impact is most likely to fall on the regulator in the year prior to changes being made (i.e. 2013).

Table 25 summarises the costs and benefits for each of the main actors. As can be observed in the Table, the costs associated with Policy Option 2 are small in comparison to Policy Option 1.

**Table 25: Policy Option 2 - Summary of Preparation Costs and Benefits**

|                 | Actor        | 2013           | 2014      | 2015      | 2016...   | ...2022   | TOTAL (NPV)    |
|-----------------|--------------|----------------|-----------|-----------|-----------|-----------|----------------|
| <b>Costs</b>    | Industry     | £0             | £0        | £0        | £0        | £0        | £0             |
|                 | Regulator    | -£1,333        | £0        | £0        | £0        | £0        | -£1,333        |
|                 | Consultees   | £0             | £0        | £0        | £0        | £0        | £0             |
|                 | Government   | £0             | £0        | £0        | £0        | £0        | £0             |
|                 | <b>Total</b> | <b>-£1,333</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>-£1,333</b> |
| <b>Benefits</b> | Industry     | £0             | £0        | £0        | £0        | £0        | £0             |
|                 | Regulator    | £0             | £0        | £0        | £0        | £0        | £0             |
|                 | Consultees   | £0             | £0        | £0        | £0        | £0        | £0             |
|                 | Government   | £0             | £0        | £0        | £0        | £0        | £0             |
|                 | <b>Total</b> | <b>£0</b>      | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b> | <b>£0</b>      |

Considering the split of these costs between England and Wales, like Policy Option 1, it would be assumed that the same processes would be required for both the Environment Agency and the NRW. Based on that assumption the costs to England will be £1.2k, and £0.2k to Wales.

### 3.4.2 Standard Rules Permits Costs and Benefits

#### 3.4.2.1 Policy Option 1 – Environmental Permitting Option

One of the key benefits associated with the Environmental Permitting regime is the ability for the regulator to provide Standard Rules Permits. If the applicant can conform to a set of parameters that are pre-set by the regulator in the design of the Standard Rules Permit, then a simplified application process can be followed that removes the need for specific risk assessment and consultation, reducing the regulator's and industry's costs.

However, unlike bespoke permits, once granted, Standard Rules Permits cannot be varied and are therefore not suitable for higher risk and more complex activities. In the view of the Environment Agency it is assumed that no inspections are carried out for those applicants opting for Standard Rules Permits. These features also reduce the cost of application and ongoing costs for industry, as well as the regulator.

The extent to which Standard Rules Permits can be used for the Fish Pass Approval regime is currently unclear. After discussions with the Environment Agency, it is understood that current applications for Fish Pass Approval for salmonids and non-migratory fish tend to be complex, and therefore it is unlikely that Standard Rules can be applied. However, for eel Fish Pass Approvals, it is expected that a large number of Standard Rules Permits could be used. In this assessment it is therefore estimated that 75% of eel fish pass approval applications utilise Standard Rules Permits rather than bespoke permits.

Whilst there is a cost in setting up to Standard Rules Permits, savings are expected to be released in the following activity areas:

- Reduction in costs for applying for new permits (regulator and industry); and
- Saving on administration costs (regulator only).

In terms of which actors the costs and benefits are expected to fall upon, the largest beneficiary is predicted to be industry, which is expected to accrue savings of £253k (10 year NPV). The Environment Agency is also expected to benefit from the same types of savings. The easier method of applying for new applications is expected to accrue savings of £120k (10 year NPV).

The 10 year NPV relating to the introduction of Standard Rules Permits is £374k (10 year NPV).

**Table 26: Policy Option 1 - Summary of Standard Rules Permits Costs and Benefits**

|                 | Actor        | 2013      | 2014           | 2015           | 2016...        | ...2022        | TOTAL (NPV)     |
|-----------------|--------------|-----------|----------------|----------------|----------------|----------------|-----------------|
| <b>Costs</b>    | Industry     | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Regulator    | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Consultees   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Government   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | <b>Total</b> | <b>£0</b> | <b>£0</b>      | <b>£0</b>      | <b>£0</b>      | <b>£0</b>      | <b>£0</b>       |
| <b>Benefits</b> | Industry     | £0        | £18,364        | £27,545        | £36,727        | £36,727        | £253,095        |
|                 | Regulator    | £0        | £8,764         | £13,147        | £17,529        | £17,529        | £120,795        |
|                 | Consultees   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Government   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | <b>Total</b> | <b>£0</b> | <b>£27,128</b> | <b>£40,692</b> | <b>£54,256</b> | <b>£54,256</b> | <b>£373,890</b> |

Please note that numbers may not add due to rounding.

The division of the costs and benefits between England and Wales would be expected to fall in line with the number of permits within the respective countries. Therefore the total benefits in England are expected to be £329k. In Wales the benefits are expected to be £45k.

### 3.4.2.2 Policy Option 2 – Non-legislative Option

The introduction of Standard Rules Permits is understood to require legislation, and is therefore not available within Policy Option 2. As such, no costs and benefits are foreseen for this activity.

### 3.4.3 Integration of Regimes Costs and Benefits

#### 3.4.3.1 Policy Option 1 – Environmental Permitting Option

It is understood that a large proportion of Fish Pass Approval applicants are also required to hold other permits relating to their activities. There is understood to be overlap with the Flood Defence Consenting, WAI and Discharge Consenting regimes. All of these regimes either currently fall within (Discharge consenting), or are planning to fall within (Flood Defence Consenting and WAI) the Environmental Permitting regime. Therefore should the Fish Pass Approval regime be integrated into the Environmental Permitting regime, the cost of processing an application ‘transaction’ is expected to be reduced where the operator has a number of other permits.

In order to estimate the benefits of the integration of regimes a set of assumptions was developed to represent the likely distribution of permits among sites. The methodology follows that, where there are 2, 3, 4, and 5 permits on a site, if the permitting requirements are precisely replicated across the regimes and these permits can be merged, then there will be incremental savings of up to 50%, 66%, 75%, or 80% respectively on the typical cost of administering permits. This percentage saving is then further moderated by two additional factors:

- The common ground between regimes for each task. These assumptions describe the degree to which the administering of environmental permits is common in terms of the information required and therefore time taken; and
- The probability that an operator would require tasks, such as application ‘transactions’ or inspections, to be processed at the same time for any site.

Box 2 illustrates the how the methodology is used in this IA.

## Box 2: Integration of Permitting Regimes Cost Savings – Methodology

Taking just one example of some of the savings that are achievable by bringing together permitting regimes, it is estimated that all of the total Fish Pass Approvals are for sites that also hold other permits.

The model assumes that where a permit is held on a site with one other permit, then under a common permitting approach (and assuming the requirements were identical for both permits) the administrative burdens could be cut in half. In this case, effectively 50% of the associated costs for each regime would be avoided. Similarly, where a site holds three permits, the implication is a 67% overlap (the same tasks repeated under each regime). Since all sites will be required to have a WAI and Flood Defence Consent, the weighted average overlap is calculated to be 66%.

This overlap then has to be moderated by the degree of common ground between the different permitting regimes. In terms of time spent applying for permits, the common ground between regimes is estimated to be 30% of the full application process.

Overall, these factors suggest that savings of 20% (i.e.  $100\% \times 66\% \times 30\%$ ) from the total baseline permit application costs are possible under a common permitting approach.

The savings due to these overlaps have then been multiplied by the relevant baseline costs. Savings associated with new applications are considered for both the regulator and industry.

Table 27 summarises the total costs and benefits by actor. Once a 'steady state' has been reached, the total savings are estimated to be £75k per annum during the operation of the policy. The 10 year NPV relating to the integration of regimes is just under £519k.

**Table 27: Policy Option 1 - Summary of Integration of Regimes Costs and Benefits**

|                 | Actor        | 2013      | 2014           | 2015           | 2016...        | ...2022        | TOTAL (NPV)     |
|-----------------|--------------|-----------|----------------|----------------|----------------|----------------|-----------------|
| <b>Costs</b>    | Industry     | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Regulator    | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Consultees   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Government   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | <b>Total</b> | <b>£0</b> | <b>£0</b>      | <b>£0</b>      | <b>£0</b>      | <b>£0</b>      | <b>£0</b>       |
| <b>Benefits</b> | Industry     | £0        | £27,731        | £41,597        | £55,463        | £55,463        | £382,206        |
|                 | Regulator    | £0        | £9,915         | £14,873        | £19,830        | £19,830        | £136,653        |
|                 | Consultees   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | Government   | £0        | £0             | £0             | £0             | £0             | £0              |
|                 | <b>Total</b> | <b>£0</b> | <b>£37,646</b> | <b>£56,470</b> | <b>£75,293</b> | <b>£75,293</b> | <b>£518,859</b> |

Please note that numbers may not add due to rounding.

Considering the breakdown of the benefits between England and Wales, like the other aspects of the policy, it would be expected that the breakdown would be consistent with the proportion of applications within the respective countries. Consequently it is expected that in England the 10 year NPV benefits will be £457k (£337k to industry and £120k to the Environment Agency). In Wales the benefits are expected to be more modest, totalling £62k (£46k to industry and £16k to the NRW).

### 3.4.3.2 Policy Option 2 – Non-legislative Option

As the Fish Pass Approval regime will remain distinct from the Environmental Permitting regime, the non-legislative option is not expected to realise any costs or benefits associated with the integration of regimes. Joint applications will not be able to be made for either new or extant activities, and thus no impacts upon the baseline are expected.

### 3.4.4 Simplified Guidance Costs and Benefits

#### 3.4.4.1 Policy Option 1 – Environmental Permitting Option

Bringing guidance for the Fish Pass Approvals regime into line with the Environmental Permitting guidance is expected to release benefits to industry as they will be able to understand the guidance more easily and thus spend less time having to re-read it and reduce the overall number of queries.

In order to release the benefits for industry, the regulator would need to invest in re-writing and training staff in the new guidance. This is expected to cost £53k and be incurred prior to the Fish Pass Approval regime transferring in to the Environmental Permitting regime.

In addition, industry will also need to invest time in reading and understanding the guidance and are therefore expected to incur a cost of £12k per annum (based on an average cost of 2 hours per operator impacted.) from 2013 to 2015 – the first three years of the guidance being made available.

Benefits are expected to accrue through a reduction in time applying for new applications than would otherwise have been occurred. It is modelled that for each of the licence transactions, a 10% saving in time is achieved by industry as a result of the new guidance.

Table 28 summarises total costs and benefits by actor. The overall 10 year NPV relating to simplified guidance is approximately £98k.

**Table 28: Policy Option 1 - Summary of the Simplified Guidance Costs and Benefits**

|                 | Actor        | 2013            | 2014            | 2015            | 2016...         | ...2022        | TOTAL (NPV)     |
|-----------------|--------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|
| <b>Costs</b>    | Industry     | £0              | -£13,013        | -£13,013        | -£13,013        | £0             | -£36,458        |
|                 | Regulator    | -£55,886        | £0              | £0              | £0              | £0             | -£55,886        |
|                 | Consultees   | £0              | £0              | £0              | £0              | £0             | £0              |
|                 | Government   | £0              | £0              | £0              | £0              | £0             | £0              |
|                 | <b>Total</b> | <b>-£55,886</b> | <b>-£13,013</b> | <b>-£13,013</b> | <b>-£13,013</b> | <b>£0</b>      | <b>-£92,344</b> |
| <b>Benefits</b> | Industry     | £0              | £13,797         | £20,695         | £27,593         | £27,593        | £190,152        |
|                 | Regulator    | £0              | £0              | £0              | £0              | £0             | £0              |
|                 | Consultees   | £0              | £0              | £0              | £0              | £0             | £0              |
|                 | Government   | £0              | £0              | £0              | £0              | £0             | £0              |
|                 | <b>Total</b> | <b>£0</b>       | <b>£13,797</b>  | <b>£20,695</b>  | <b>£27,593</b>  | <b>£27,593</b> | <b>£190,152</b> |

Please note that numbers may not add due to rounding.

Considering the split between the Welsh and English impacts, the separation has been calculated based on the estimated number of approvals within each country. Consequently, the overall costs in England are estimated to be £81k, whilst the benefits are estimated to be £168k.

For Wales the estimated costs are estimated to be £11.0k, whilst the benefits are forecast to be £22.6k.

#### 3.4.4.2 Policy Option 2 – Non-legislative Option

One of the key changes associated with the non-legislative option is the drafting of new guidance. Although the Fish Pass Approval and Environmental Permitting regimes will be distinct, guidance could be crafted so to ensure that the terminologies and processes contained in the two regimes can be aligned and understood more easily than at present.

As such, it is expected that the costs and benefits associated with this policy will be identical to Policy Option 1.

**Table 29: Policy Option 2 - Summary of the Simplified Guidance Costs and Benefits**

|                 | Actor        | 2013            | 2014            | 2015            | 2016...         | ...2022        | TOTAL (NPV)     |
|-----------------|--------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|
| <b>Costs</b>    | Industry     | £0              | -£13,013        | -£13,013        | -£13,013        | £0             | -£36,458        |
|                 | Regulator    | -£55,886        | £0              | £0              | £0              | £0             | -£55,886        |
|                 | Consultees   | £0              | £0              | £0              | £0              | £0             | £0              |
|                 | Government   | £0              | £0              | £0              | £0              | £0             | £0              |
|                 | <b>Total</b> | <b>-£55,886</b> | <b>-£13,013</b> | <b>-£13,013</b> | <b>-£13,013</b> | <b>£0</b>      | <b>-£92,344</b> |
| <b>Benefits</b> | Industry     | £0              | £13,797         | £20,695         | £27,593         | £27,593        | £190,152        |
|                 | Regulator    | £0              | £0              | £0              | £0              | £0             | £0              |
|                 | Consultees   | £0              | £0              | £0              | £0              | £0             | £0              |
|                 | Government   | £0              | £0              | £0              | £0              | £0             | £0              |
|                 | <b>Total</b> | <b>£0</b>       | <b>£13,797</b>  | <b>£20,695</b>  | <b>£27,593</b>  | <b>£27,593</b> | <b>£190,152</b> |

Please note that numbers may not add due to rounding.

The impacts for Policy Option 2 are expected to be distributed in the same fashion as those for Policy Option 1. Consequently, the overall costs in England are estimated to be £81k, whilst the benefits are estimated to be £168k.

For Wales the estimated costs are estimated to be £11.0k, whilst the benefits are forecast to be £22.6k.

### 3.4.5 Other Costs and Benefits

#### 3.4.5.1 Policy Option 1 – Environmental Permitting Option

In addition to the costs and benefits outlined in the previous sections, there are a small number of benefits related to the Environmental Permitting Option which cannot be placed in to a single discrete category – accordingly these have been presented in this section.

As a result of implementing Policy Option 1, it is expected that the average number of regulatory questions received by the regulator, relating to the relevant regulations, will be reduced. This assumption reflects the previous experience with other regimes being incorporated within the Environmental Permitting system, and clearer guidance being made available.

In addition, it is also assumed that the Environment Agency and the NRW will experience ongoing administrative savings associated with the administering the Fish Pass Approval regime. Currently the regime utilises skills with area, regional and national teams. It is expected that incorporation in to the Environmental Permitting regime will further harmonise the use of such skills.

At this time, these impacts are unable to be quantified due to the lack of evidence.

#### 3.4.5.2 Policy Option 2 – Non-legislative Option

Like Policy Option 1, Policy Option 2 (the non-legislative option) is expected to incur impacts over and above those outlined in the previous sections. These cannot be placed in to a single discrete category and as such are included here.

As a result of clearer guidance being provided (see Section 3.3.1.2), it is expected that the average number of related regulatory questions received by the regulator will be reduced. Like Policy Option 1, at this time, these impacts are unable to be quantified due to the lack of evidence.

### 3.4.6 Summary of Costs and Benefits

#### 3.4.6.1 Policy Option 1 – Environmental Permitting Option

As a result of implementing Policy Option 1, over the 10 year period, a net benefit of £0.96m in NPV terms is anticipated. Considering where the benefits are expected to be allocated, the majority of the net benefits (£0.79m) are expected to be received by industry, with the Environment Agency receiving £0.17m of benefits (10 year NPV). No costs or benefits are expected for Government and Consultees.<sup>17</sup>

**Table 30: Policy Option 1 - Summary of Total Net Costs and Benefits by Actor**

| Actor              | 2013            | 2014           | 2015            | 2016            | 2017..          | ...2022         | TOTAL (NPV)     |
|--------------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Industry           | £0              | £46,879        | £76,825         | £106,770        | £119,783        | £119,783        | £788,996        |
| Environment Agency | -£88,374        | £18,679        | £28,019         | £37,359         | £37,359         | £37,359         | £169,074        |
| Consultees         | £0              | £0             | £0              | £0              | £0              | £0              | £0              |
| Government         | £0              | £0             | £0              | £0              | £0              | £0              | £0              |
| <b>Total Net</b>   | <b>-£88,374</b> | <b>£65,558</b> | <b>£104,844</b> | <b>£144,129</b> | <b>£157,142</b> | <b>£157,142</b> | <b>£958,069</b> |

A summary of the net costs and benefits by activity area is shown in Table 31. The largest share of savings is expected to result from 'integration of regimes' activities (£502k 10 Year NPV) as described in Section 3.4.3.1.

In terms of other areas of savings, the next largest share is derived from the introduction Standard Rules Permits (£374k 10 Year NPV). The only activity area expected to result in a net cost is the preparatory work laying the ground for the policy itself (-£32k).

**Table 31: Policy Option 1 - Summary of Total Net Costs and Benefits by Activity Area**

| Activity                 | 2013            | 2014           | 2015            | 2016            | 2017...         | ...2022         | TOTAL (NPV)     |
|--------------------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Preparation              | -£32,489        | £0             | £0              | £0              | £0              | £0              | -£32,489        |
| Standard Rules Permits   | £0              | £27,128        | £40,692         | £54,256         | £54,256         | £54,256         | £373,890        |
| Integration of Regimes   | £0              | £37,646        | £56,470         | £75,293         | £75,293         | £75,293         | £518,859        |
| Simplified Guidance      | -£55,886        | £784           | £7,682          | £14,580         | £27,593         | £27,593         | £97,808         |
| Other Costs and Benefits | £0              | £0             | £0              | £0              | £0              | £0              | £0              |
| <b>Total Net</b>         | <b>-£88,374</b> | <b>£65,558</b> | <b>£104,844</b> | <b>£144,129</b> | <b>£157,142</b> | <b>£157,142</b> | <b>£958,069</b> |

Considering the distribution of impacts between England and Wales, it is expected that the majority of benefits are expected to fall within the England. This is due to the majority of the applications being held in England. The total NPV for England is demonstrated in Table 32. It is forecast that the 10 year NPV will be £0.8m.

For Wales, the savings are forecast to be more modest. Table 33 shows that the 10 year NPV is forecast to be £0.1m.

<sup>17</sup> Please note that 'sunk costs' (i.e. those costs already occurred prior to 2012) are not included in this assessment and thus no costs or benefits are forecast for Government.

**Table 32: Policy Option 1 - Summary of Total Costs and Benefits by Activity Area - England**

| Activity                 | 2013            | 2014           | 2015           | 2016            | 2017...         | ...2022         | TOTAL (NPV)     |
|--------------------------|-----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Preparation              | -£28,621        | £0             | £0             | £0              | £0              | £0              | -£28,621        |
| Standard Rules Permits   | £0              | £23,899        | £35,848        | £47,797         | £47,797         | £47,797         | £329,380        |
| Integration of Regimes   | £0              | £33,165        | £49,747        | £66,329         | £66,329         | £66,329         | £457,090        |
| Simplified Guidance      | -£49,233        | £690           | £6,767         | £12,845         | £24,308         | £24,308         | £86,165         |
| Other Costs and Benefits | £0              | £0             | £0             | £0              | £0              | £0              | £0              |
| <b>Total Net</b>         | <b>-£77,854</b> | <b>£57,754</b> | <b>£92,362</b> | <b>£126,971</b> | <b>£138,435</b> | <b>£138,435</b> | <b>£844,013</b> |

**Table 33: Policy Option 1 - Summary of Total Costs and Benefits by Activity Area - Wales**

| Activity                 | 2013            | 2014          | 2015           | 2016           | 2017...        | ...2022        | TOTAL (NPV)     |
|--------------------------|-----------------|---------------|----------------|----------------|----------------|----------------|-----------------|
| Preparation              | -£3,868         | £0            | £0             | £0             | £0             | £0             | -£3,868         |
| Standard Rules Permits   | £0              | £3,230        | £4,844         | £6,459         | £6,459         | £6,459         | £44,511         |
| Integration of Regimes   | £0              | £4,482        | £6,723         | £8,963         | £8,963         | £8,963         | £61,769         |
| Simplified Guidance      | -£6,653         | £93           | £915           | £1,736         | £3,285         | £3,285         | £11,644         |
| Other Costs and Benefits | £0              | £0            | £0             | £0             | £0             | £0             | £0              |
| <b>Total Net</b>         | <b>-£10,521</b> | <b>£7,805</b> | <b>£12,481</b> | <b>£17,158</b> | <b>£18,707</b> | <b>£18,707</b> | <b>£114,056</b> |

### 3.4.6.2 Policy Option 2 – Non-legislative Option

Over a 10 year period, Policy Option 2 is expected to result in approximately £96k of benefits in NPV terms. Like Policy Option 1, all of the net benefits are expected to accrue to Industry (£154k 10 Year NPV), whilst approximately -£57k (10 Year NPV) of costs are expected to flow to the Environment Agency. Like Policy Option 1, no costs or benefits are expected for Government or Consultees.

**Table 34: Policy Option 2 - Summary of Total Net Costs and Benefits by Actor**

| Actor              | 2013            | 2014        | 2015          | 2016           | 2017...        | ...2022        | TOTAL (NPV)    |
|--------------------|-----------------|-------------|---------------|----------------|----------------|----------------|----------------|
| Industry           | £0              | £784        | £7,682        | £14,580        | £27,593        | £27,593        | £153,694       |
| Environment Agency | -£57,219        | £0          | £0            | £0             | £0             | £0             | -£57,219       |
| Consultees         | £0              | £0          | £0            | £0             | £0             | £0             | £0             |
| Government         | £0              | £0          | £0            | £0             | £0             | £0             | £0             |
| <b>Total Net</b>   | <b>-£57,219</b> | <b>£784</b> | <b>£7,682</b> | <b>£14,580</b> | <b>£27,593</b> | <b>£27,593</b> | <b>£96,476</b> |

Table 35, shown over the page, summarises the costs and benefits associated with the Policy Option for each of the activity areas.

**Table 35: Policy Option 2 - Summary of Total Costs and Benefits by Activity Area**

| Activity                 | 2013            | 2014        | 2015          | 2016           | 2017...        | ...2022        | TOTAL (NPV)    |
|--------------------------|-----------------|-------------|---------------|----------------|----------------|----------------|----------------|
| Preparation              | -£1,333         | £0          | £0            | £0             | £0             | £0             | -£1,333        |
| Simplified Guidance      | -£55,886        | £784        | £7,682        | £14,580        | £27,593        | £27,593        | £97,808        |
| Other Costs and Benefits | £0              | £0          | £0            | £0             | £0             | £0             | £0             |
| <b>Total Net</b>         | <b>-£57,219</b> | <b>£784</b> | <b>£7,682</b> | <b>£14,580</b> | <b>£27,593</b> | <b>£27,593</b> | <b>£96,476</b> |

Considering the impacts for England and Wales, like Policy Option 1, the main proportion of benefits are expected to flow to England. The 10 year NPV is forecast to be £85k for England and 11k for Wales. These are very modest savings when compared to Policy Option 1.

**Table 36: Policy Option 2 - Summary of Total Costs and Benefits by Activity Area - England**

| Activity                 | 2013            | 2014        | 2015          | 2016           | 2017...        | ...2022        | TOTAL (NPV)    |
|--------------------------|-----------------|-------------|---------------|----------------|----------------|----------------|----------------|
| Preparation              | -£1,174         | £0          | £0            | £0             | £0             | £0             | -£1,174        |
| Simplified Guidance      | -£49,233        | £690        | £6,767        | £12,845        | £24,308        | £24,308        | £86,165        |
| Other Costs and Benefits | £0              | £0          | £0            | £0             | £0             | £0             | £0             |
| <b>Total Net</b>         | <b>-£50,407</b> | <b>£690</b> | <b>£6,767</b> | <b>£12,845</b> | <b>£24,308</b> | <b>£24,308</b> | <b>£84,990</b> |

**Table 37: Policy Option 2 - Summary of Total Costs and Benefits by Activity Area - Wales**

| Activity                 | 2013           | 2014       | 2015        | 2016          | 2017...       | ...2022       | TOTAL (NPV)    |
|--------------------------|----------------|------------|-------------|---------------|---------------|---------------|----------------|
| Preparation              | -£159          | £0         | £0          | £0            | £0            | £0            | -£159          |
| Simplified Guidance      | -£6,653        | £93        | £915        | £1,736        | £3,285        | £3,285        | £11,644        |
| Other Costs and Benefits | £0             | £0         | £0          | £0            | £0            | £0            | £0             |
| <b>Total Net</b>         | <b>-£6,812</b> | <b>£93</b> | <b>£915</b> | <b>£1,736</b> | <b>£3,285</b> | <b>£3,285</b> | <b>£11,485</b> |

## 4.0 Conclusions

A summary of the Policy 1 net costs and benefits for both the Fish Pass Approval Regime and the WAI regime is shown in Table 38. The 10 Year NPV is expected to be £4.2m. As can be shown in the table, the largest beneficiary is expected to be the Regulator, with over 50% of the net benefit. Industry is also expected to accrue significant benefits, with just over £1.6m (10 Year NPV in total).

**Table 38: Policy Option 1 - Summary of Total Net Costs and Benefits by Actor for both Regimes**

| Actor            | 2013             | 2014            | 2015            | 2016            | 2017...         | ...2022         | TOTAL (NPV)       |
|------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| Industry         | £0               | £22,063         | £92,673         | £163,283        | £282,439        | £282,439        | £1,612,518        |
| Regulator        | -£465,967        | £205,879        | £308,819        | £411,758        | £411,758        | £411,758        | £2,371,550        |
| Consultees       | -£15,784         | £19,223         | £28,835         | £38,447         | £38,447         | £38,447         | £249,161          |
| Government       | £0               | £0              | £0              | £0              | £0              | £0              | £0                |
| <b>Total Net</b> | <b>-£481,751</b> | <b>£247,166</b> | <b>£430,327</b> | <b>£613,488</b> | <b>£732,645</b> | <b>£732,645</b> | <b>£4,233,228</b> |

By contrast the overall 10 Year NPV for Policy Option 2 is expected to only £0.5m. The majority of the benefits are expected to be accrued by Industry (£0.4m). Table 39, shown below, summarises the key costs and benefits.

**Table 39: Policy Option 2 - Summary of Total Net Costs and Benefits by Actor for both Regimes**

| Actor            | 2013             | 2014            | 2015            | 2016           | 2017...         | ...2022         | TOTAL (NPV)     |
|------------------|------------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|
| Industry         | £0               | -£69,071        | -£44,028        | -£18,985       | £100,172        | £100,172        | £356,474        |
| Regulator        | -£154,673        | £22,472         | £33,708         | £44,944        | £44,944         | £44,944         | £155,044        |
| Consultees       | -£5,332          | £0              | £0              | £0             | £0              | £0              | -£5,332         |
| Government       | £0               | £0              | £0              | £0             | £0              | £0              | £0              |
| <b>Total Net</b> | <b>-£160,004</b> | <b>-£46,599</b> | <b>-£10,320</b> | <b>£25,959</b> | <b>£145,116</b> | <b>£145,116</b> | <b>£506,186</b> |

## Summary and preferred option and description of implementation plan

The introduction of the water abstraction and impoundment licensing and fish pass approvals regimes into the Environmental Permitting framework will widen the existing risk-based and proportionate single system of environmental permitting and compliance. It will cut unnecessary red tape, continue to protect the environment and human health and increase clarity and certainty for all stakeholders on how the system protects the environment. The legislative option – option 1 – is the preferred option as it will realise greater benefits than the non-legislative option. Implementation will be in two stages: first an enabling power for Ministers to regulate the use of water resources is to be included in the Water Bill; second, secondary legislation will be published for public consultation with more detailed proposals on bringing the additional regimes into the EP framework. This will be underpinned by a revised IA and guidance for business and regulators.

# Annex 1: Model Assumptions

## A1.1 General Assumptions

In addition to the impacts identified within the evidence base, there a number of assumptions made throughout the modelling which have not resulted in any costs or benefits arising from them. These assumptions are outlined as follows:

- Definition of the operator/ person in control. No change is expected from the current right of access test for abstraction licences;
- Surrender test. There is already a test when revoking an impounding licence, but a mandatory surrender test for abstraction licences is not expected. Again the preferred policy does not seek to change this position;
- Appeals. It is assumed that no costs or benefits would arise as a result of appeals; and
- Periodic reviews of licensing. It is assumed that there will be no change to time limits for abstraction licences and the periodic review which already occurs will continue to occur.

## A1.2 Sensitivity Analysis

The costs and benefits included within this impact assessment have not been subjected to a sensitivity analysis. The model which calculates the costs and benefits is formulated from over 200 individual assumptions. As part of the quality assurance process, each of these assumptions has been tested with relevant stakeholders to ensure that an accurate estimate as possible can be reached. Therefore it is not deemed necessary to apply a sensitivity to each of the modelling assumptions.

## A1.3 Risks

Although the model is comprised of over 200 individual assumptions, there are a number of risks which may impact the overall level of benefits (be that positively or negatively). The most significant of these are outlined in the following sub-sections.

### A1.3.1 Exemptions

The withdrawal of exemptions under the Water Act 2003 could have a large impact on the number of permits currently modelled within the baseline. It is believed that up to 10,000 activities may require a permit.

These activities have not been included in the impact assessment model as it is unclear of:

- How many could be Standard Rules Permits;
- How many operators would also have other environmental permits; and
- When the withdrawal of exemptions will come into force.

The addition of the activities in the model is expected to have a proportional impact on the costs and benefits currently presented in the Evidence Base.

### A1.3.1 Public Registers

As described in Section 3.3.1.1, public registers for the WAI regime may need to be amalgamated with other regimes. Further analysis may also be required on the implementation of electronic public registers, in order to determine the size of the project required.

## A1.4 Wage Rates

For the purposes of this IA, it is assumed that the working year for both the Environment Agency and Industry is 218 days. This takes into account 104 weekend days, 8 bank holidays and an average of 35 days sick and holiday leave. The productive working day is assumed to be 7.5 hours. On costs of 28% are added to salaries, to cover employer's national insurance contribution, pension contributions and other costs of employing personnel.

The wages of consultees were assumed to be in line with Grade 3 to 5 Environment Agency wages.

**Table 40: Wage Rates**

| Actor              | Grade/Position  | Average Cost Per Annum | Average Cost Per Day |
|--------------------|---|------------------------|----------------------|
| Environment Agency | Grade 1   | £14,848                | £87.18               |
| Environment Agency | Grade 2   | £16,971                | £99.65               |
| Environment Agency | Grade 3   | £21,091                | £123.84              |
| Environment Agency | Grade 4   | £25,821                | £151.61              |
| Environment Agency | Grade 5   | £32,663                | £191.79              |
| Environment Agency | Grade 6   | £41,652                | £244.56              |
| Environment Agency | Grade 7   | £52,274                | £306.93              |
| Environment Agency | Average Wage - licence administration   | N/A                    | £133.41              |
| Industry           | Senior Managers   | £46,770                | £274.61              |
| Industry           | Internal Professionals  | £45,176                | £265.25              |
| Industry           | Technicians/Officers  | £32,918                | £193.28              |
| Industry           | Administrative and clerical staff   | £18,677                | £109.66              |
| Industry           | Average wage for staff undertaking new applications, variations and subsistence | £32,681                | £191.89              |
| Consultees         | Grade 3   | £21,091                | £123.84              |
| Consultees         | Grade 5   | £32,663                | £191.79              |
| Consultees         | Grade 6   | £41,652                | £244.56              |

Source: Environment Agency – PP3 2010 pay award and inflated by 1% per annum; Industry - Annual Survey of Hours and Earnings (ASHE) - based on an average of mgrs in construction, mining/energy, farming and waste mgt <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-280149>

## **Annex 2: Specific Impacts**

### **A2.1 Statutory equality duties**

After initial screening as to the potential impact of this policy/regulation on race, disability and gender equality it has been decided that there will not be a major impact upon minority groups in terms of numbers affected or the seriousness of the likely impact, or both.

### **A2.2 Competition Assessment**

Considering the four questions posed in the competition assessment laid out by the Office of Fair Trading, the preferred Policy is not expected to either directly or indirectly limit the number or range of suppliers. The Policy is not expected to limit the ability of the suppliers to compete or to reduce suppliers' incentives to compete vigorously.

For the purpose of this competition assessment, charges relating to new environmental permits, where a licensing system already exists, are likely to be less or equal when compared with previous permits or licences.

### **A2.3 Small Firms Impact Test**

The proposal is not anticipated to negatively affect small businesses, their customers or competitors. Indeed any proposal which reduces administrative burden should help small firms as they will spend a lower proportion of their time on administrative tasks. The Environmental Permitting system enables a risk-based approach to regulation, set within the Government's obligation to transpose EU directives. It is not therefore possible to simply exclude all small firms from regulation. The Environmental Permitting system is focussed upon reducing administrative burdens, and its risk-based approach allow the Environment Agency to minimise burdens to all regulated businesses, but its benefits will be greatest for small businesses who have less time to spend on administration.

As part of the IA conducted for the Second Phase of the Environmental Permitting Programme, a quality assurance (QA) assessment took place.<sup>18</sup> The QA process involved interviews with operators to ascertain the costs associated with the permitting regimes. Of those operators interviewed to quality assure the data, 19 were small firms.

The QA assessment suggested that the main cause of variance in the time taken for permitting requirements was the nature of the permit itself. In many cases the larger companies tend to be the ones with the more complex, and more involved, permits. However, it may not be surprising that the QA assessment revealed that for certain types of permit, smaller companies take slightly increased amounts of time compared with their larger company counterparts on administration. This would suggest the value of the savings of a more streamlined permitting system may be greater for small firms.

### **A2.4 Greenhouse Gas Impact Assessment**

It is expected the changes will have a negligible effect on the emission of greenhouse gases.

### **A2.5 Wider Environmental Issues**

We have considered the guidance and have assessed that there is no impact.

### **A2.6 Health and Well-Being**

We have considered the guidance and have assessed that there is no impact.

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<sup>18</sup> <http://www.legislation.gov.uk/uksi/2007/3538/memorandum/contents>

## **A2.7 Human Rights**

It is not expected that the policy will create any human rights issues.

## **A2.8 Justice System**

We have considered the guidance and have assessed that there is no impact.

## **A2.9 Rural Proofing**

We have considered the guidance and have assessed that there is no impact.

## **A2.10 Sustainable Development**

We have considered the guidance and have assessed that there is no impact.