Annex III Impact Assessment

Summary: Intervention & Options

Department/Agency:	Title:	
Defra/WAG/Environment Agency	**Impact Assessment of the Environmental Permitting Programme – Phase 2**	
Stage: Consultation	**Version:** 1.0	**Date:** 16 January 2009

Related Publications: Consultation on proposals to widen the Environmental Permitting Regime by incorporating Discharge Consenting, Groundwater Authorisation & Radioactive Substances Regulation

Available to view or download at:

http://www.defra.gov.uk/environment/epp

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What is the problem under consideration? Why is government intervention necessary?

Existing environmental permitting regimes have been 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 rationalise permitting regimes to reduce the administrative costs of environmental regulation while continuing to achieve the intended outcomes.

What are the policy objectives and the intended effects?

The first phase of the Environmental Permitting Programme (EPP1) integrated Pollution Prevention and Control and waste permits. The second phase of the Programme (EPP2) aims in England and Wales to absorb further existing regimes and forthcoming directives into EPP. This should reduce the current administrative costs and facilitate more cost-effective implementation of new directives.

What policy options have been considered? Please justify any preferred option.

This Impact Assessment (IA) considers the costs and benefits of including each of the following pollution control regimes into EPP2: Discharge Consenting, Groundwater Authorisations, Radioactive Substances Regulation (nuclear and non-nuclear), Mining Waste Directive, Batteries Directive, Water Abstraction and Impoundment, and Waste Carriers and Brokers (in part). It is issued with a consultation on the first three of these systems; there have been/ are ongoing/ will be separate consultations on the other regimes (see section 1.3). The choice of policy options is constrained by decisions taken during the first phase of EPP to establish a single integrated permitting system.

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?

Post implementation review of EPP2 in October 2011. From 2009, the costs of operating the permitting system will be monitored to compare them with the costs pre-EPP2. (There will be a post implementation review of EPP1 in April 2010.)

Ministerial Sign-off For consultation stage Impact Assessments:

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 Minister:

.....Date:

Summary: Analysis & Evidence

Policy Option: 1	Description: No changes to existing EPP2 regimes (baseline against which other options are measured)

COSTS

ANNUAL COSTS	Description and scale of **key monetised costs** by 'main affected groups':
One-off (Transition) **Yrs**	Actual costs of maintaining current systems (where baselines have been defined, as shown in Table 3) are of the order £120m discounted over ten years. However, to more clearly demonstrate the impact of EPP2, throughout this IA all Policy Option 1 costs are set to zero and EPP2 data is shown as net cost benefits.
£ Zero (net)	
Average Annual Cost (excluding one-off)	
£ Zero (net)	**Total Cost** (PV) **£ Zero (net)**

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

BENEFITS

ANNUAL BENEFITS	Description and scale of **key monetised benefits** by 'main affected groups'
One-off **Yrs**	
£ Zero (net)	
Average Annual Benefit (excluding one-off)	
£ Zero (net)	**Total Benefit** (PV) **£ Zero (net)**

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

Key Assumptions/Sensitivities/Risks

Price Base Year	Time Period Years	**Net Benefit Range** (NPV) **£ -**	**NET BENEFIT** (NPV Best estimate) **£ Zero (net)**

What is the geographic coverage of the policy/option?				England and Wales	
On what date will the policy be implemented?				Already in force	
Which organisation(s) will enforce the policy?				Environment Agency	
What is the total annual cost of enforcement for these organisations?				Significant. Net = £0	
Does enforcement comply with Hampton principles?				Yes	
Will implementation go beyond minimum EU requirements?				Yes	
What is the value of the proposed offsetting measure per year?				£ 0	
What is the value of changes in greenhouse gas emissions?				£ 0	
Will the proposal have a significant impact on competition?				No	
Annual cost (£-£) per organisation (excluding one-off)	Micro	Small	Medium	Large	
Are any of these organisations exempt?	No	No	No	No	

Impact on Admin Burdens Baseline (2005 Prices) (Increase - Decrease)

Increase of £ Zero Decrease of £ Zero **Net Impact** **£ Zero**

Key: **Annual costs and benefits: Constant Prices** **(Net) Present Value**

Summary: Analysis & Evidence

Policy Option: 2	Description: EPP2 (incorporation of all the proposed regimes into EPP)

COSTS

ANNUAL COSTS	
One-off (Transition)	**Yrs**
£ 4.4 million (total)	4
Average Annual Cost (excluding one-off)	
£ 0.003 million	

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

Implementation costs (regulatory development including consultation, training and adaptation). Ongoing maintenance costs.

See evidence base.

Total Cost (PV) **£ 4.1 million**

Other **key non-monetised costs** by 'main affected groups':

None.

BENEFITS

ANNUAL BENEFITS	
One-off	**Yrs**
£ 0.5 million	1
Average Annual Benefit (excluding one-off)	
£ 5.4 million	

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

See evidence base. Net ten year NPV summary given in Table 3.

Total Benefit (PV) **£ 43.9 million**

Other **key non-monetised benefits** by 'main affected groups':

Increased clarity and certainty for everyone. Simplified system for transposing environmental directives.

Key Assumptions/Sensitivities/Risks:

Cost assumptions can be found in Annex C.

Price Base Year 2008/09	Time Period Years 10	**Net Benefit Range** (NPV) **£ 30.8m – £ 93.8m**	**NET BENEFIT** (NPV Best estimate) **£ 39.8m**

What is the geographic coverage of the policy/option?			England and Wales	
On what date will the policy be implemented?			2009 - 2012	
Which organisation(s) will enforce the policy?			Environment Agency	
What is the total annual cost of enforcement for these organisations?			-£12m (over 10 years)	
Does enforcement comply with Hampton principles?			Yes	
Will implementation go beyond minimum EU requirements?			No	
What is the value of the proposed offsetting measure per year?			N/A	
What is the value of changes in greenhouse gas emissions?			£600/ year	
Will the proposal have a significant impact on competition?			No	
Annual cost (£-£) per organisation (excluding one-off)	Micro	Small	Medium	Large
Are any of these organisations exempt?	No	No	No	No

Impact on Admin Burdens Baseline (2005 Prices) (Increase - Decrease)

Increase of £ 3.8 million Decrease of £ 41.1million **Net Impact** **-£37.2m** (10yr figures)

Key: **Annual costs and benefits: Constant Prices** **(Net) Present Value**

Evidence Base (for summary sheets)

1. Introduction

1.1. This is the Impact Assessment (IA) for proposals from Department for Environment, Food and Rural Affairs (Defra), the Welsh Assembly Government (WAG) and the Environment Agency for creating a wider risk-based and proportionate single system of environmental permitting and compliance for England and Wales.

1.2. The Environmental Permitting Regulations (EP Regulations) will be extended in the second phase of the Environmental Permitting Programme (EPP2). This will deliver a wider risk-based and proportionate single system of environmental permitting and compliance. It aims to cut unnecessary red tape, to continue to protect the environment and human health, and to increase clarity and certainty for everyone on how the system protects the environment.

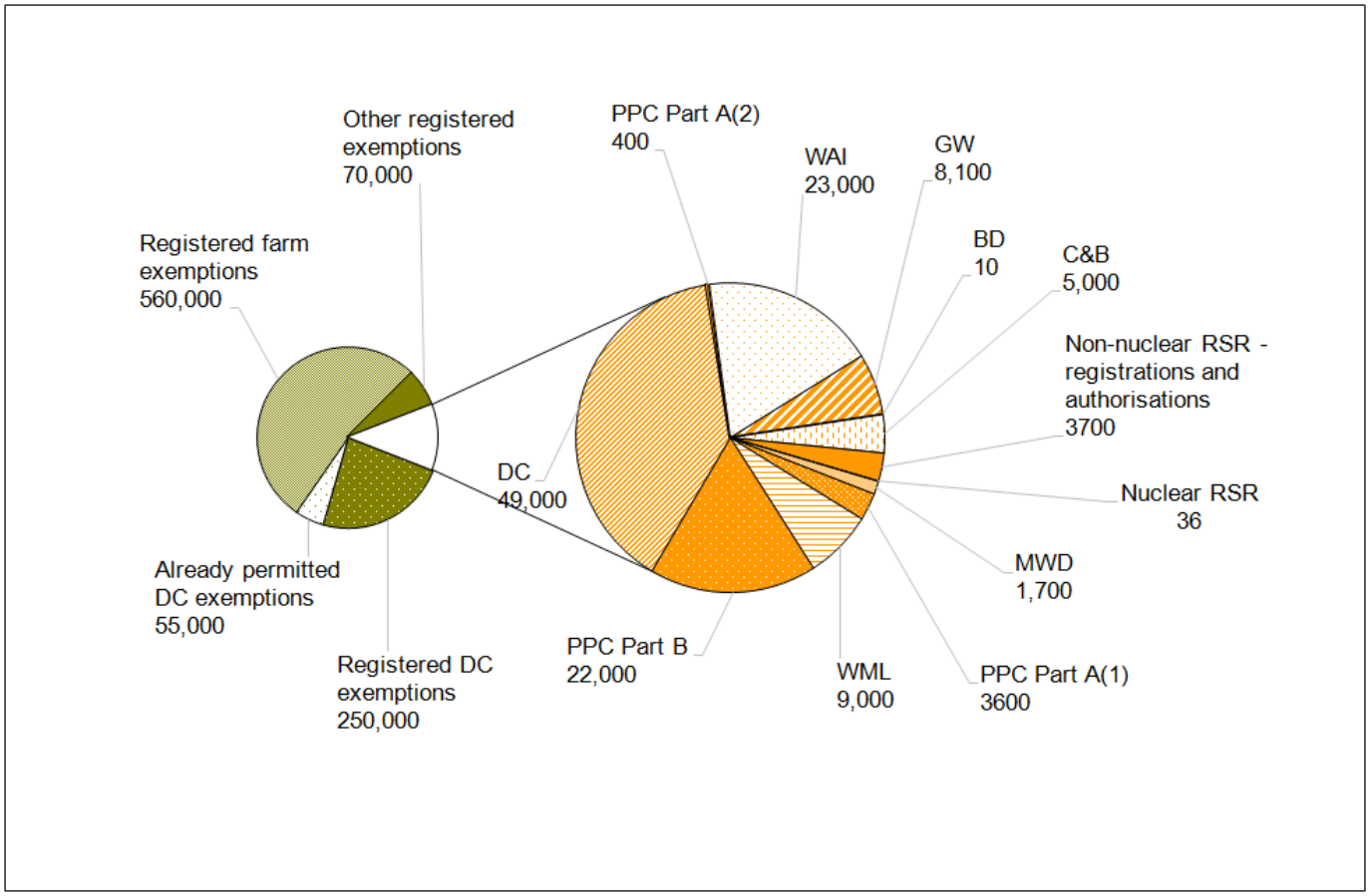
1.3. The first phase of the EPP (EPP1) streamlined and simplified Waste Management Licensing (WML) and Pollution Prevention and Control (PPC) to establish a single system that could be extended in the future. EPP2 builds on this and proposes that the following candidate regimes be integrated into the environmental permitting system:

- **Discharge Consenting (DC)** – the regulation of discharges into controlled waters. The proposals for this are in the consultation paper accompanying this IA and, if supported, regulations could go live in April 2010.
- **Groundwater Authorisations and new Groundwater Daughter Directive (GW)** – the regulation of discharges of List 1 and List 2 substances to land and the new Daughter Directive. The proposals for this are in the consultation paper accompanying this IA and, if supported, regulations could go live in April 2010.
- **Radioactive Substances Regulation (RSR)** including:
  - Nuclear – regulation of the disposal of radioactive waste at nuclear sites; and
  - Non-nuclear – regulation of the use and storage of radioactive material and the storage and disposal of radioactive waste.

  The proposals for this are in the consultation paper accompanying this IA and, if supported, regulations could go live in April 2010.
- **Mining Waste Directive (MWD)** – new requirements on the management of waste from the extractive industries. This was consulted on in spring 2008 and will be transposed into regulation shortly.
- **Batteries Directive (BD)** – permitting and compliance parts of the new Directive's requirements for the treatment of waste batteries and accumulators. This consultation ran from 22 December 2008 to 13 February 2009, with the intent of making regulations soon afterwards.
- **Water Abstraction and Impoundment Licensing (WAI)** – the regulation of Water Abstraction and Impoundment. We propose to use the draft Floods and Water Bill to introduce a power to convert this regime into secondary legislation, to allow the regime to be incorporated subsequently.
- **Carriers and Brokers (C&B)** – the regulation of (some) carriers and brokers of controlled waste where they have other environmental permits. This was consulted on in summer 2008; consultation responses will be considered with the intent of issuing amended regulations for the C&B system shortly (the EP regulations will not need to be amended).

1.4. EPP is taking a phased approach to incorporating candidate regimes. This IA accompanies the consultation on policy and regulations for three of the above regimes: DC, GW and RSR. It also describes and, where possible, quantifies the benefits of the ongoing policy development on the remaining candidate regimes which could be incorporated from 2009. These will be subject to separate consultations. The number of EP and candidate regime permits and registered waste exemptions is shown in Figure 1 after EPP2.

Figure 1. Number of permits and registered exemptions in the EP and candidate regimes in England and Wales after EPP2



Document Structure

1.5. This document is structured as follows:

- Section 1: Introduction
- Section 2: Approach to assessing costs and benefits
- Section 3: Evidence supporting conclusions
- Section 4: Implementation, enforcement and sanctions
- Annex A: Operators involved in QA of baseline and benefits estimates
- Annex B: Specific impact checklist
- Annex C: Macro assumptions used for baselines and benefits

2. Approach to assessing costs and benefits

2.1. The Environmental Permitting Programme is currently in its second phase. In the first phase, the Government consulted on a number of options to modernise environmental permitting and sought views on the range of existing permitting systems that might be brought within the scope of such an exercise. Subsequently, Government confirmed its preference for a single integrated environmental permitting system. The immediate focus was the integration of the systems for Waste Management Licensing and Pollution Prevention and Control, but it was also made clear that the Government aspires to extend the common system in due course to include additional permitting regimes, subject to further consultation. This present consultation takes as its starting point this direction of travel and the fact that a common system for WML and PPC is now operational. It therefore considers two options:

- Policy option 1: not implementing EPP2. This is the baseline or 'do nothing' option
- Policy option 2: implementing all the candidate regimes within EPP2.

2.2. EPP2 extends environmental permitting (EP) by:

- **Absorbing the existing regimes of:** DC, RSR, WAI and C&B. For these, the baseline scenario assesses the current and likely future costs of operating each regime without EPP2. This only covers those categories that are likely to change as a result of EPP2 and not, for example, environmental assessment costs which will not be affected. Estimates were developed using the standard cost model (see Box 1) by reference to the PricewaterhouseCoopers 2005 data and in dialogue with Environment Agency staff; they were cross-checked by 35 industry representatives, some of whom answered questions on more than one regime, and some had several hundred permits in a regime. 19 were small firms (see Annex A). To estimate the implementation costs and cost savings of EPP2, assumptions were developed with expert colleagues, building on the work done for EPP1, and again estimates were cross-checked by industry representatives.
- **Incorporating the requirements of forthcoming directives into EPP:** GW, MWD and BD. The baseline scenario assesses the impact of transposing without using EPP and the EPP2 option **assesses the cost savings relative to that baseline**. Currently the baseline scenarios for the GW and BD are relatively basic: as their transposition Impact Assessments are developed, we will refine the estimates. The assessment for the MWD assesses the cost of using EPP against the three other baseline scenarios presented in that Directive's IA (see section 3).

2.3. In general, EPP2 does not change the substantive requirements of permits, but it does reduce the administration necessary to deliver those requirements. The benefits are therefore generally expressed in terms of savings in administrative costs. The costs are those that are incurred in implementing the new system. Where there are changes to the substantive requirements of permitting, the ongoing costs and benefits of those changes are also considered.

Box 1: Administrative costs and 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).

Administrative burdens are calculated using the formula N x W x 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.

For further details see 'Measuring Administrative Cost: UK Standard Cost Model Manual' Better Regulation Executive, September 2005 (http://bre.berr.gov.uk/files/file44503.pdf)

2.4. **Cost savings are quantified where they arise from:**

i) **Integration of regimes** – this has been described by industry as the single most important change in modernising environmental regulation. Where operators hold multiple permits, EPP will allow for businesses and the Environment Agency to administer all of a site's permits in an integrated way, which will make single applications/inspections possible[1]. Sites with multiple permits (see Table 1 for estimated numbers) will be able to realise further savings. To reflect this, a set of assumptions was developed to represent the likely distribution of permits among sites, shown in Table 2. The method proposes that, where there are 2, 3, 4, 5, and 6 permits on a site, there can be incremental savings of up to 50 per cent, 66 per cent, 75 per cent, 80 per cent or 83 per cent on the typical cost of administering permits respectively. This saving is moderated by:

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.

b. The probability that an operator would require tasks to be processed at the same time for any site.

The savings due to these overlaps have then been multiplied by the relevant baseline costs.

ii) **Common inspections** – this is where, because there is more than one regime, more than one Environment Agency inspector visits the same site and there is an opportunity for common inspections, saving time for both industry and regulator. Estimates were made using a similar process as for integration of regimes. Savings were further reduced to reflect the need for some inspections to be undertaken by specialist regime-specific staff. As well as savings made through reduced Environment Agency and industry staff time due to avoided inspections, there are associated savings in Environment Agency vehicle costs and fuel CO2 emissions (see Annex B).

[1] Where integration leads to cost savings to holders of existing environmental permits, such as where a landfill site also has a water discharge consent, these additional savings have been allocated to the EPP2 candidate regimes.

iii) **Multiple site applications** – savings due to applications made by operators for common activities on a number of their sites were estimated. This required an assumed proportion of applications that would be made on this basis.

iv) **Simplified guidance** – re-written, simpler guidance should increase the efficiency of the entire permitting process for operators, regulators and others. An overall savings factor was estimated based on the potential for improvement. Transitional costs were estimated for the Environment Agency developing new guidance and for operators reading the guidance to inform themselves of the new system.

v) **Standard rules permits (SPs)** – these are suitable for low risk activities, and will be easier and cheaper for operators to obtain than the existing bespoke permits. In order to model the potential savings of introducing SPs, it was necessary to estimate for each candidate regime the proportion of:

- extant and new permits that are suitable for SPs
- steady state savings of holding an SP as opposed to a bespoke permit for each permitting task in turn
- new applicants and extant permit holders who would opt for SPs when given the choice

vi) **Exemption from the requirement for a permit** – this could provide a more risk-based approach for those lowest risk activities, such as small scale, largely domestic sewerage discharges and some low risk groundwater activities. This would benefit operators and regulators.

vii) **Time savings for consultees** – consultees should save time due to integrated consultations and the introduction of a system of risk-based consultation.

viii) **Environment Agency support and administration savings** – it is envisaged that EPP2 will reduce the support that operational staff require from Head Office as EPP2 represents the simpler regulatory system. A reduction in the administrative requirements is also likely, particularly those associated with updating and maintaining the guidance.

Table 1. Estimated[2] incidence of overlaps between regimes including EP Waste and EP PPC A(1) in England and Wales

Candidate regimes	Extant permits	Overlap count	DC	GW	Non-Nuclear RSR	Nuclear RSR	MWD	BD	WAI	C&B	EP waste	EP PPC A(1)
DC	104,490	5,561	----	10	250	7	NE	NE	4,044	400	500	350
GW	8,104	421	10	----	50	1	NE	NE	360	0	0	0
Non-Nuclear RSR	3,734	751	250	50	----	0	NE	NE	140	0	0	311
Nuclear RSR	36	38	7	1	0	----	NE	NE	7	0	7	16
MWD	1,650	NE	NE	NE	NE	NE	----	NE	NE	NE	NE	NE
BD	10	NE	NE	NE	NE	NE	NE	----	NE	NE	NE	NE
WAI	22,856	5,938	4,044	360	140	7	NE	NE	----	50	525	812
C&B	77,547	5,000	400	0	0	0	NE	NE	50	----	5,000	200
EP Waste	9,150	6,032	500	0	0	7	NE	NE	525	5,000	----	0
EP PPC A(1)	3,600	1,689	350	0	311	16	NE	NE	812	200	0	----

Note: 'NE' is not estimated

Table 2. Savings attributable to sites with permits for more than one regime

	DC	GW	Non-Nuclear RSR	Nuclear RSR	MWD	BD	WAI	C&B	EP Waste	EP PPC A(1)
Exactly 2 permits	80%	NE	70%	10%	NE	NE	70%	100%	70%	50%
Exactly 3 permits	10%	NE	15%	40%	NE	NE	15%	0%	20%	24%
Exactly 4 permits	10%	NE	10%	40%	NE	NE	10%	0%	10%	20%
Exactly 5 permits	0%	NE	5%	10%	NE	NE	5%	0%	0%	5%
Exactly 6 permits	0%	NE	0%	0%	NE	NE	0%	0%	0%	1%
Total	100%	NE	100%	100%	NE	NE	100%	100%	100%	100%
Cost allocation	46%	NE	44%	30%	NE	NE	44%	50%	44%	39%
Saving for overlap sites	54%	NE	57%*	70%*	NE	NE	57%	50%	56%	61%

*Note: despite overlaps with other regimes at nuclear and non-nuclear sites, no cost savings have been accounted since security considerations necessitate maintaining separate systems for these permitting systems. Again, 'NE' is not estimated.

[2] The Environment Agency does not currently record the EPP candidate regimes on the same database. It has therefore estimated and in some cases counted the overlap between regimes. MWD and BD have been excluded from the exercise and GW has been included as currently permitted, rather than by making a guess about implementation of the new Groundwater Directive.

2.5. Some benefits are **less tangible and are not quantified**. These include:

- a simplified system to transpose future directives
- improved environmental outcomes:
  - a better risk-based regime which targets inspections etc. more consistently
  - more integrated and holistic thinking by industry, which could lead to better management of environmental risks
  - regulations which are simpler to follow, resulting in better compliance by businesses (particularly smaller organisations)
- savings in the cost of compliance, due to more integrated thinking resulting in innovative and therefore cheaper compliance
- opportunities to tackle existing limitations and issues within each regime
- potential savings on Environment Agency IT costs, as discussed in section 2.7

2.6. Many of the assumptions used to develop the baselines were also used in the savings model (such as wage rates). General assumptions have been made to estimate the costs of industry and Environment Agency staff time (see Annex C).

2.7. **Implementation costs arise as a result of:**

i) **Activities the Environment Agency undertakes to prepare** – these include:

- input into the regulatory process
- time taken to train staff and for them to familiarise themselves with the new system
- development of and consultation for SPs; transferring existing permits to SPs
- some reduction of process efficiency in the first year
- amalgamating the public register
- the need to explain the new system to industry and respond to enquiries.

ii) **The need to upgrade the Environment Agency's IT systems** – this represents a significant transitional cost for EPP2. However, the cost balances here are complex. The Environment Agency has already initiated a programme of modernisation of its IT systems which incorporates many of the capabilities required for EPP2. This work is well advanced. Although further work will be necessary, the individual cost to each regime reduces significantly as subsequent regimes move to an integrated IT system. Indeed, the costs associated with the necessary redevelopment of individual IT systems in the absence of EPP2 are anticipated to greatly exceed the costs of an integrated approach. As such, significant forward savings on IT can be expected to be delivered by EPP2. These savings have not, however, been accounted in the modelling due to both the difficulty in assessing the levels of expenditure necessary with and without EPP2, and uncertainties concerning the timings of required system upgrades.

iii) **Operators understanding new systems and guidance**

iv) **Time taken for operators to consider whether to convert to SPs, and to apply**

2.8. **Other methodological points to note are:**

- The SCM is intended to capture the administrative burden placed on all private sector organisations. This IA includes the Environment Agency costs as they are recovered from industry.

- The Treasury Green Book discount rate of 3.5 per cent is used. Discount rates are used to reflect how society values the costs and benefits that arise in future time periods.
- The Regulatory Impact Assessment (RIA) for EPP1 assessed costs and benefits over a ten year period. This length of time has been retained for this IA.

3. Evidence supporting conclusions

3.1. EPP2, along with EPP1, is an important part of achieving Defra's 25 per cent target for reducing net administrative burdens and is included in its simplification plan 'Better Regulation, Better Business'[3]. This section summarises the estimates of costs and benefits of EPP2. The impact of including all the regimes (policy option 2) is derived by aggregating costs and benefits of the individual regimes.

Headline cost benefit summary

3.2. The headline cost benefits of introducing EPP2 are anticipated to give a total discounted saving of £39.8 million over ten years for England and Wales. The larger proportion of the savings (67 per cent) are expected to be generated from reduced burdens to industry, with the Environment Agency and consultees expected to achieve the remaining savings (30 per cent and 2 per cent respectively).

3.3. Table 3 summarises the information in this IA, giving:

- permit numbers for the candidate regimes (see also Figure 1)
- the administrative burden baselines (for England and Wales, combined and separately)
- the benefits for each candidate regime discounted over ten years (for England and Wales, combined and separately)
- the percentage of the baseline saved (and how this is split between industry, the Environment Agency and consultees)
- a note on how the benefits were calculated

3.4. The greatest benefits are expected to be found in the DC regime (a total of £22.4 million discounted over ten years); a significant proportion of this is due to efficiencies gained in relation to the large number of small sewage works that require permitting. The next greatest benefits are for the RSR regime (a total of £7.1 million discounted over ten years); the major contributor to this is streamlined nuclear variations – reducing the level of prescription within EP permits, while maintaining the level of provision of information to local authorities. The majority of the remaining benefits are from the MWD and WAI regimes (respectively £4.4 million and £3.9 million discounted over ten years). The final £2.0 million benefits (discounted over ten years) are divided between GW, BD and C&B.

3.5. When examining all regimes together, a total benefit of £7.2 million over ten years is delivered through the integration of regimes due to harmonisation of permit applications, permit modifications and site inspections. Simplified guidance leads to savings of £1.7 million over ten years, net of the development costs. Standard permits deliver £2.1 million in savings over ten years. A further £16.1 million is saved over ten years by allowing licensed exemptions for small sewage treatment works (SSTW) under the discharge consent regime; this is explained further in section 3.17. Additional savings (such as those associated with reduced consultations, single form applications for multiple sites, the integration of the Mining Waste and Batteries Directives, and other streamlining measures) make up the balance of the overall £39.8 million ten year NPV cost benefit figure.

Sensitivity Analysis

3.6. Almost half of the total EPP2 savings (£19 million NPV over ten years) are associated with small sewage treatment works (SSTWs) in the DC regime. Any small efficiency saving

[3] http://www.defra.gov.uk/corporate/regulat/better/simplify/pdf/simplification-plan-081210.pdf

achieved for a permit application (for instance) resulting from EPP2 is greatly amplified in the modelling due to the large number of these discharges in England and Wales. Indeed, the calculations around SSTWs are the most sensitive aspect of the modelling, and any changes in assumptions here will have the single biggest impact on the results. As such, it is logical that we have focused the business case sensitivity analysis upon these assumptions. We consider that other modelling sensitivities, for all regimes, can be considered to be eclipsed by the range evaluated for SSTWs.

3.7. Key assumptions in our modelling for SSTWs include the time saved making online (rather than paper) permit applications; the number of properties with unregistered SSTWs sold each year; and the time taken to process applications at the Environment Agency application receipt centre. Individual sensitivity investigation on each of these factors suggests that additional savings of £29m, £3m and £1m respectively (as NPV over ten years) may be possible. However, with each factor adjusted concurrently, the effects are compounded and a net cost saving of £54m additional NPV over ten years is shown to be possible. Equally, using the most conservative assumptions, the compounded loss in cost benefit is evaluated to be £9m (less) NPV over ten years. These ranges are quoted on the summary table at the head of this Impact Assessment.

3.8. The ranges suggested by this sensitivity analysis show that the cost benefit may either be marginally less than or significantly more than the headline figures. The realistic stance, taken with respect to the central assumptions for the modelling, is deliberately conservative in order to take account of any possible optimism bias.

Benefits for Wales

3.9. The total benefits to Wales for EPP2 are £3.5 million over ten years. Although this sum is relatively modest, each regime does show benefits higher than the costs of being included. Benefits are higher in proportion for regimes such as MWD and WAI where there is a higher incidence of these activities in Wales than in England. We have not attempted to evaluate the cost to Wales which would ensue if EPP2 was taken forward on an England only basis, but note that benefits would be greatly reduced and potentially eliminated.

Regime specific cost benefits

3.10. In the remainder of this section, each candidate system is considered in turn, looking first at baselines then benefits: Discharge Consenting (DC) in section 3.11, Groundwater Authorisations (GW) in section 3.22, Radioactive Substances Regulation permitting (RSR) in section 3.27, Mining Waste Directive (MWD) in section 3.35, Batteries Directive (BD) in section 3.34, Water Abstraction and Impoundment (WAI) in section 3.40 and Waste Carriers and Brokers (C&B) in section 3.47

Table 3. Summary of headline cost benefits for each of the regimes and the percentage baseline saving for England and Wales

Prog.	System	No of permits in England and Wales	No of permits in England	No of permits in Wales	Baseline for England and Wales	NPV over ten years England and Wales	NPV over ten years England	NPV over ten years Wales	Steady State saving % of base line	Industry saving % of NPV (and base line)	EA saving % of NPV (and base line)	Cons-ultee saving % NPV (and base line)	Means of forecasting costs and benefits
EPP1	PPC A(1)	3,556	3,200	356	----	----	----	----	-----	----	----	-----	EPP1 RIA
EPP1	PPC A(2)	400	384	16	----	----	----	----	-----	----	----	-----	EPP1 RIA
EPP1	PPC Part B	22,000	21,120	880	----	----	----	----	-----	----	----	-----	EPP1 RIA
EPP1	Waste Management licensing	9,010	8,110	900	----	----	----	----	-----	----	----	-----	EPP1 RIA
EPP1	Registered waste exemptions	70,000	64,400	5,600	----	----	----	----	-----	----	----	-----	EPP1 RIA
EPP1	Registered waste exemptions at farms	560,000	480,300	79,700	----	----	----	----	-----	----	----	-----	EPP1 RIA
EPP2	Discharge Consenting	104,490	95,861	8,629	£81.1m	£22.4m	£20.5	£1.9m	4%	84% (6%)	13% (2%)	2% (0%)	SCM and policy discussions
EPP2	Groundwater Directive	8,104	6,153	1,951	----	£0.3m	£0.2m	£0.1m	Not calc	Not calc	Not calc	Not calc	Baseline data – and policy discussions (showing cost avoidance)
EPP2	RSR – registrations authorisations and Nuclear permits	3,734 (800 NN) (36 Nuc)	3,516 (761 NN)) (33 Nuc)	218 (39 NN) (3 Nuc)	£7.5m	£7.1m	£6.6m	£0.5m	12%	45% (25%)	54% (9%)	1% (0%)	SCM and policy discussions
EPP2	Mining Waste Directive	1,650	1,474	176	----	£4.4m	£3.9m	£0.5m	Not calc	Not calc	Not calc	Not calc	Extract from MWD impact assessment (showing cost avoidance)
EPP2	Batteries Directive	<10	<10	1	----	£0.8m	£0.7m	£0.1m	Not calc	Not calc	Not calc	Not calc	Not calculated
EPP2	Water Abstraction and Impoundment	22,856	20,026	2,829	£27.1m	£3.9m	£3.4m	£0.5m	3%	71% (16%)	21% (1%)	7% (0%)	SCM and policy discussions
EPP2	Carriers and brokers	5,000[4]	4,500	500	£3.1m	£1.0m	£0.9m	£0.1m	5%	64% (18%)	36% (3%)	0% (0%)	SCM and policy discussions
EPP2 total	-----	145,880	131,573	14,307	----	£39.8m	£36.2m	£3.7m	5%	67%	30%	2%	-----

[4] There are 77,500 registered carriers and brokers, however it is intended that only those with other EPP permits would be including in EPP2.

Discharge Consenting baseline

3.11. The DC regime authorises effluent discharges to controlled waters. A wide range of operators obtain permits, ranging from householders (where sewage is treated via septic tanks or small sewage treatment plants) to farmers, industrial units and large water and sewerage companies. These operators, including householders and farmers, are encompassed by 'industry' throughout this IA. The administration of the regime within the Environment Agency is currently undergoing change, with a move from local Environment Agency offices administering the regime to a small number of national centres employing specialist staff to undertake all of the work relating to applications, variations, transfers etc. The Environment Agency is also simplifying its application forms for smaller consents (it estimates a reduction in time taken from over 3 hours to 40 minutes). These changes have been accounted for in the baseline costs to the Environment Agency.

3.12. For the purposes of estimating the administrative burden on the Environment Agency and industry, the permits have been divided into three broad categories based upon risk:

- Standard rules permits (which also include the small scale, largely domestic sewage discharges);
- simple bespoke permits (which may be water company sewage treatment works, wastewater treatment works, site drainage etc.); and
- complex bespoke permits (more complex examples of sewage treatment works, wastewater treatment works etc.).

3.13. In addition, a number of the complex bespoke permits are due to move more towards self monitoring, with the Environment Agency acting as an auditor rather than undertaking large numbers of samples directly. These changes have also been incorporated into the baseline figures.

3.14. The estimated baseline costs for the DC regime are presented in Table 4.

Table 4. Baseline Annual Costs for the Discharge Consenting Regime in England and Wales

	Description	Permit type	Quantity	Environment Agency	Industry[5]
Applications	**Processing application**	Simple standard consent	6	£242	£6,180
		Small STW	5000	£201,671	£3,950,860
		Additional SSTW	20,000	£225,025	£524,161
		Simple bespoke consent	129	£125,859	£461,468
		Complex bespoke consent	30	£170,944	£562,636
	Advertising		954	-	£149,975
	Appeals	Appeals withdrawn	168	£141,199	£288,655
		Appeals reaching a full hearing	25	£118,861	£1,234,644
Variations	**Applications for variations**	Simple standard consent	14	£1,543	£14,420
		Small STW	0	£0	£0
		Simple bespoke consent	301	£293,671	£1,076,759
		Complex bespoke consent	70	£398,870	£1,312,818
	Undertaking Routine Reviews	Total reviews per year	4,600	£156,820	£0
		Consents needing amendment	920	£976,630	£75,542
	Major Reviews	Only FTE info supplied	-	£842,591	£0
Transfers			2,125	£23,092	£116,496
Subsistence	**Sampling**	Simple standard consent	670	£7,152	£26,339
		Small STW	-	£0	£0
		Simple bespoke consent	157,296	£1,679,070	£6,183,627
		Complex bespoke consent (self monitoring)	19,662	£209,884	£772,953
		Complex bespoke consent (self monitoring, EA inspections accompanied)	88,479	£0	£15,434,912
		Complex bespoke consent (non self monitoring)	39,324	£419,768	£1,535,907
	Inspections	Simple standard consent	0	£0	£0
		Small STW	0	£0	£0
		Simple bespoke consent	117,972	£11,498,502	£9,275,440
		Complex bespoke consent (self monitoring)	983	£236,358	£142,996
		Complex bespoke consent (non self monitoring)	19,662	£4,727,162	£2,859,927
Surrenders		All Consents	495	£10,756	£54,263
Subtotal				**£22,465,670**	**£46,070,977**
Other	IT costs			£3,357,000	
	EA policy			£1,000,000	
	EA process			£515,000	
	Support services	Direct services staff (finance, legal, admin)		£772,000	
		Other (e.g. vehicle ops, labs, depreciation)		£6,886,000	
Total				**£34,995,670**	**£46,070,977**

[5] 'industry' includes householders, farmers, industrial units and water and sewage companies.

3.15. **Discharge Consenting benefits**

3.16. The estimated costs and benefits for the DC regime are presented in Table 5.

3.17. The majority of the savings for DC are associated with standard permits for low environmental risk permit applications and exemptions for sewage treatment works (SSTW). A total saving (accounting for associated transitional costs) of £17.3 million NPV over ten years in England and Wales is possible, of which over 90 per cent is from SSTW exemptions. This is based on the following details:

- SSTWs:
  - New packaged treatment plants, representing 98 per cent of SSTWs, will be eligible for exemptions. The much smaller number of septic tanks, which discharge a more concentrated effluent to soak-aways, will still require bespoke permitting.
  - The existing permitted 55,000 SSTWs are not intended to move to exemptions until the point where they are next transferred (i.e. property sales etc.). This will reduce the demand on the Environment Agency compared to changing all permits at once. Furthermore, since there are no monitoring or maintenance requirements for these permits anyway, benefits can only ever be realised at the point of transference.
  - It is estimated that there are an additional 250,000 unregistered SSTWs in England and Wales. These are to be permitted at the point of house sales through a conveyancing requirement, and again cost savings are achieved through the provision for exemptions in EPP2 and the application process being an online registration rather than paper form based.
- Other discharges:
  - Other discharges may qualify for standard permits, and uptake of new applications conforming to the standard rules is assumed to be 18 per cent.
  - Existing discharges are not assumed to move to standard rules permits.
- In each case, these permit types are expected to have lower costs associated with subsistence and variation activities. As shown in Table 5, the overall savings are, in the main, realised by industry with exemption applications alone leading to ongoing savings of over £1.8 million each year. In total, £18.9 million of the £22.4 million ten year saving is attributable to industry.

3.18. The benefits associated with the integration of regimes, again as described above, amount to total savings of £4.1 million NPV over ten years in England and Wales, 67 per cent of which is industry savings. £1.4 million of the £4.1 million is savings for new applicants, the rest being savings on administration of existing permits. A more detailed illustration of integration of regimes cost savings, as shown in Table 5, is given here:

- Industry DC savings resulting from the integration of regimes amount to an annual £376,000. The majority of these are attributed to new applications and integrated inspections.
- Industry savings for new permit applications are £157,000 each year (42 per cent of industry integration of regime savings). This is distributed accordingly:
  - £98,000 of savings attributable to industry regulated under EPP1 who held waste permits
  - £47,000 of savings attributable to industry regulated under EPP1 who held PPC permits
  - £12,000 of savings attributable to the other regimes being brought into EPP2
- Integrated inspections lead to £136,000 of savings a year for industry alone with largest proportion being accredited to the Water Abstraction regime (£42,000 each year).

- Of the annual £188,000 of Environment Agency integration of regimes savings, the majority (75 per cent) are due to integrated inspections. Annual savings of £62,000 are associated with integration with EPP1 inspections, and a further £79,000 with the other EPP2 regime inspections.

3.19. In the case of Discharge Consenting, the savings delivered through simplification of guidance (£1.1 million NPV over ten years for England and Wales, including the costs of preparing and understanding the guidance) are significant due to the large number of new applicants and variations each year.

3.20. Permit revocation for discharge consents is currently a two-stage process involving both industry and the Environment Agency. Under EPP2, the proposal is that operators merely return their permit, thereby cutting the industry time significantly (although Environment Agency time will remain unaffected). This results in industry cost savings of £0.3 million NPV over ten years.

Discharge Consenting summary

3.21. It is estimated that the NPV of using EP is £22.4 million over ten years for England and Wales (£18.9 million industry, £3.0 million to the Environment Agency and £0.5 million to consultees). The annual steady state savings are equivalent to 4 per cent of the baseline administrative burden costs (split between industry 84 per cent, the Environment Agency 13 per cent and consultees 2 per cent[6]).

[6] See table 3

Table 5. Costs and Benefits for the Discharge Consenting Regime in England and Wales

EPP2 Costs & Benefits Matrix Water Quality			Preparation	Transition	Ongoing			
			2008/09	2009/10	2010/11	2011/12	2012/13	10 Year NPV
INDUSTRY	Transition costs	Consider move to SP/Exemption		£0	£0	£0		**£0**
		Apply for SP		£0	£0	£0		**£0**
		Apply for Exemption		-£27,099	-£27,099	-£27,099		**-£75,922**
		Understand guidance		-£11,794	£0	£0		**-£11,009**
	Simplified guidance	Applications		£102,622	£102,622	£102,622	£102,622	**£754,318**
		Variations		£48,080	£48,080	£48,080	£48,080	**£353,408**
		Transfers		£2,330	£2,330	£2,330	£2,330	**£17,126**
		Surrenders/lapses and revocations		£1,085	£1,085	£1,085	£1,085	**£7,977**
	Integration of regimes	Applications (inc consultations)		£156,943	£156,943	£156,943	£156,943	**£1,153,599**
		Variations		£24,073	£24,073	£24,073	£24,073	**£176,950**
		Transfers		£7,073	£7,073	£7,073	£7,073	**£51,991**
		Surrenders/lapses and revocations		£52,479	£52,479	£52,479	£52,479	**£385,744**
		Integrated inspections		£135,528	£135,528	£135,528	£135,528	**£996,191**
	Operator permits	Multiple applications under 1 form		£18,732	£18,732	£18,732	£18,732	**£137,691**
	Standard permits	Applications		£88,079	£88,079	£88,079	£88,079	**£647,418**
		Subsistence (>flexibility, <inspections)		£0	£0	£0	£0	**£0**
		Variations		£3,179	£3,179	£3,179	£3,179	**£23,368**
	Exemp-tions	Annual savings on new applications		£1,849,929	£1,849,929	£1,849,929	£1,849,929	**£13,597,760**
		Annual savings on transfers		£48,532	£48,532	£48,532	£48,532	**£356,733**
	Stream-lining	New dispensations for transfers		£0	£0	£0	£0	**£0**
		Streamlined permit revocation (DCs)		£0	£45,219	£45,219	£45,219	**£290,166**
		Streamlined RSR variations		£0	£0	£0	£0	**£0**
	Mining waste	Savings on application - existing sites		£0	£0	£0	£0	**£0**
		Savings on application - new sites		£0	£0	£0	£0	**£0**
	INDUSTRY TOTALS		£0	£2,499,775	£2,556,787	£2,556,787	£2,583,886	**£18,863,509**
ENVIRONMENT AGENCY	Preparation costs	Input into regulatory process	-£32,612					**-£31,509**
		Net IT costs	£0	£0	£0	£0	£0	**£0**
		Staff training/reading guidance	-£177,709					**-£171,700**
		Develop SPs and consultations	-£75,000					**-£72,464**
		Rewrite guidance	-£65,223					**-£63,018**
		Amalgamating public registers	-£625,073					**-£603,936**
	Trans-ition costs	Move to SPs		£0	£0	£0		**£0**
		Move to Exemptions		£0	£0	£0		**£0**
		Reduction in process efficiency		-£19,676				**-£18,368**
	Integration of regimes	Applications (inc consultations)		£27,725	£27,725	£27,725	£27,725	**£203,790**
		Variations		£10,551	£10,551	£10,551	£10,551	**£77,553**
		Transfers		£2,076	£2,076	£2,076	£2,076	**£15,256**
		Surrenders/lapses and revocations		£6,363	£6,363	£6,363	£6,363	**£46,774**
		Integrated inspections		£140,830	£140,830	£140,830	£140,830	**£1,035,156**
	Operator permits	Multiple applications under 1 form		-£107	-£107	-£107	-£107	**-£785**
	Standard permits	Applications		£26,734	£26,734	£26,734	£26,734	**£196,507**
		Subsistence		£0	£0	£0	£0	**£0**
		Variations		£918	£918	£918	£918	**£6,747**
	Exemp-tions	Annual savings on new applications		£288,020	£288,020	£288,020	£288,020	**£2,117,066**
		Annual savings on transfers		£9,620	£9,620	£9,620	£9,620	**£70,712**
	Stream-lining	New dispensations for transfers		£0	£0	£0	£0	**£0**
		Streamlined RSR variations		£0	£0	£0	£0	**£0**
		Reduced number of consultations		£8,120	£8,120	£8,120	£8,120	**£59,685**
	Other savings	Policy and process savings		£13,790	£13,790	£13,790	£13,790	**£101,362**
		Admin savings		£4,574	£4,574	£4,574	£4,574	**£33,621**
	ENVIRONMENT AGENCY TOTALS		-£975,617	£519,537	£539,213	£539,213	£539,213	**£3,002,450**
CONSULTEES	Costs	Input into rewriting of guidance	-£6,522					**-£6,302**
		SP consultations	-£11,920					**-£11,517**
	Savings	Integrated consultations		£58	£58	£58	£58	**£428**
		Standard Permitting		£43,750	£43,750	£43,750	£43,750	**£321,583**
		Reduced number of consultations		£24,244	£24,244	£24,244	£24,244	**£178,206**
	CONSULTEE TOTALS		-£18,442	£68,053	£68,053	£68,053	£68,053	**£482,399**
Monetised CO_2 Savings				£263	£263	£263	£263	**£1,935**
TOTALS: INDUSTRY, EA, CONSULTEES & CO_2			**-£994,060**	**£3,087,628**	**£3,164,316**	**£3,164,316**	**£3,191,415**	**£22,352,860**

Groundwater Authorisation estimated baseline and benefits

3.22. Given that the detail of the new Groundwater Directive is not yet fixed, and it will not be clear how the 'baseline' or 'without EPP' scenario will differ from the 'with EPP' scenario, this assessment is relatively basic. It will remain basic until the responses to the 'Consultation on the transposition of Article 6 of the Groundwater Directive'[7] (May 2006) have been analysed.

3.23. Currently, there are two broad permitting types that deliver the existing Groundwater Directive:

- The first type occurs where the requirements of the Directive are delivered through existing arrangements (e.g. landfill requirements, rather than through specific groundwater authorisations);
- The second type is a specific permit that an operator must obtain. There are five broad types of authorisation, of which three relate to disposal of farm effluents (pesticides, sheep dip and a combination of the two), one to the burial of carcasses and ash resulting from the foot and mouth epidemic, and the final one to the discharge of mining wastes.

3.24. If we estimate that the new Directive requires changes to 75 per cent of the existing groundwater authorisations, and take the conservative approach of only considering those without EP permits (including landfill permits) and Discharge Consent permits, this means 6,500 sites will require changes to their existing authorisations.

3.25. Using standard permits to achieve the required changes, and assuming each variation takes industry half an hour instead of one hour to complete, and the Environment Agency half an hour instead of two hours to process (see Table 6), there is a one-off saving of £0.3 million for England and Wales (£0.1 million to industry and £0.2 million to the Environment Agency).

3.26. Although these savings are modest, further benefits are expected to arise from the common EP Regulations framework which we have not specifically costed at this stage, for example, the need to maintain separate procedures and guidance, as this will in future be centrally maintained. We intend to develop a more detailed baseline and identify benefits when the policy requirements for the new directive are clearer.

Table 6. Ten year savings for varying permits using the EPP platform

	Environment Agency		Industry	
	Without EPP2	**With EPP2**	**Without EPP2**	**With EPP2**
Extant permits	8,100	8,100	8,100	8,100
% Requiring variation	75%	75%	75%	75%
Permits varied	6,075	6,075	6,075	6,075
Time taken - hours	2	0.5	1	0.5
Total Hours	12,150	3,038	6,075	3,038
Cost	£308,371	£77,093	£154,186	£77,093
Saving	**£231,279**		**£77,093**	
Total savings	**£308,000**			

[7] www.defra.gov.uk/corporate/consult/wfdgroundwater-transpose-article6/index.htm

Radioactive Substances Regulation baseline

3.27. The baseline costs, generated in consultation with the Environment Agency and validated with the industry quality assurance, are shown in Table 7, Table 8 and Table 9.

3.28. RSR currently applies to certain radioactive material and wastes. It comprises nuclear and non-nuclear regulation, which have been calculated separately in this IA:

- RSR regulates the use and storage of radioactive material, and the storage and disposal of radioactive wastes. There are currently around 4,000 non-nuclear permits, operated through a system of registration and authorisation. Controls apply to fixed radioactive sources and mobile ones. A series of exemption orders render lower risk substances and wastes exempt from the need for a permit[8].
- There are currently 36 nuclear permits (sites permitted include power stations, research and military establishments). The storage of radioactive substances and wastes is regulated along with health and safety issues undertaken by the Nuclear Installations Inspectorate (part of Health and Safety Executive), through a site licence issued under the Nuclear Installations Act 1965. The Environment Agency regulates disposal of radioactive wastes from those sites.

Table 7. Baseline annual costs for the non-nuclear regime in England and Wales

Process	Description	Quantity	Environment Agency	Industry
Applications	Non-nuclear authorisations	50	£16,749	£122,850
	Non-nuclear registrations	120	£20,098	£117,936
Variation	Non-nuclear authorisations	160	£70,070	£116,364
	Non-nuclear registrations	380	£110,944	£134,812
Subsistence (Inspections)	Non-nuclear authorisations	395	£140,817	£87,346
	Non-nuclear registrations	1,293	£230,476	£285,921
Surrenders	Non-nuclear authorisations	70	£26,100	£68,796
	Non-nuclear registrations	380	£56,673	£149,386
Sub-Total			**£671,927**	**£1,083,411**
Other	IT costs		£149,000	
	EA policy		£216,000	
	EA process		£201,000	
	Support services		£23,000	
Totals			**£1,260,927**	**£1,083,411**
Notes: *Support services staff includes finance, legal, admin.				

[8] http://www.defra.gov.uk/environment/radioactivity/government/legislation/exemption_orders_review.htm

Table 8. Baseline annual costs for the nuclear regime in England and Wales

Process	Description	Quantity	Environment Agency	Industry
Variation	Nuclear authorisations	6	£1,800,000	£442,260
Transfers	Nuclear authorisations	7	£132,000	£113,514
Subsistence	Inspections	720	£1,008,000	£238,821
	Samples	36	£432,000	£269,071
Sub-Totals			**£3,372,000**	**£1,063,666**
Other	IT costs		£76,000	
	EA policy		£180,000	
	Environment Agency process		£381,000	
	Support services*		£40,000	
Totals			**£4,049,000**	**£1,063,666**

Notes:

*Support services staff (finance, legal, admin) and other (vehicle ops, labs, depreciation)

It was reported that there have only been a couple of nuclear authorisations surrendered in the last decade. Baseline costs for administering surrenders have not therefore been provided by the Environment Agency.

Table 9. Summary of baseline annual costs for the non-nuclear and nuclear regimes in England and Wales

Description	Industry	Environment Agency	Total
Non-nuclear	**£1,083,411**	**£1,260,927**	£2,344,338
Nuclear	**£1,063,666**	**£4,049,000**	£5,112,666
Total	£2,147,077	£5,309,927	£7,457,004

Radioactive Substances Regulation benefits

3.29. The estimated costs and benefits for the RSR regime are presented in Table 10, Table 11 and Table 12.

3.30. Security considerations and the need for most inspections to be undertaken by specialist staff mean that the benefits of EPP2 to the RSR regime are more limited than they would otherwise be. There is a need to keep the application process separate and distinct from that of the other regimes, hence cost savings for applications seen under the other regimes do not occur here. Similarly, permitting applications and inspections will not be integrated with the other regimes. However, similar design of guidance documents and application forms may deliver efficiency improvements.

3.31. Some of the small users of radioactive materials may also be able to use standard rules, rather than requiring a site-specific (bespoke) permit. With an assumed 50 per cent of non-nuclear RSR permits able to operate under standard rules and 40 per cent of existing qualifying permits transferring to standard rules, the ten year NPV cost saving amounts to £0.7 million (£0.4 million to industry and £0.3 million to the Environment Agency).

3.32. The ability to transfer permits between operators will also bring benefits amounting to £0.2 million as a ten year NPV.

3.33. The major contributor to the nuclear cost savings is streamlined nuclear and non-nuclear variations. Currently, authorisations are framed in a manner that means that any changes to the destination to which radioactive wastes are sent for off-site disposal (to separately

authorised facilities) requires a formal variation. The proposal under EPP2 is to streamline these arrangements by reducing the level of prescription within environmental permits to allow such changes to be made without formal variation, whilst maintaining the provision of information to local authorities. To counter a possible loss of transparency, the appropriate local authorities would be informed of the new transfer arrangement by the waste recipient. The modelling assumes that four of the six nuclear variations per year can be streamlined, and that 90 per cent of both the Environment Agency's and industry's 1,500 hours are saved. This delivers £3.8 million of savings as an NPV over ten years. Further savings may be delivered to non-nuclear permit holders. Assuming 25 per cent of non-nuclear variations can be avoided and that a further 50 per cent are able to be streamlined (again with 90 per cent time savings), the cost savings amount to £1.9 million over ten years. Furthermore, consultations will not be required on avoided or streamlined non-nuclear variations, which leads to further savings of £58,000 NPV over ten years to consultees and £70,000 to the Environment Agency. These contribute to the "reduced number of consultations" savings in the tables.

Radioactive Substances Regulation summary

3.34. As illustrated in the combined Table 12 for both nuclear and non-nuclear radioactive substances, it is estimated that the NPV of using EP is £7.1 million over ten years for England and Wales (£3.8 million to industry, £3.2 million to the Environment Agency and £0.1 million to consultees. The annual steady state savings are equivalent to 12 per cent of the baseline administrative burden costs (split between industry 45 per cent, the Environment Agency 54 per cent and consultees 1 per cent[9]).

[9] See table 3.

Table 10. Costs and benefits for the non-nuclear Radioactive Substances Regulation regime in England and Wales

EPP2 Costs & Benefits Matrix Non-Nuclear RSR			Preparation 2008/09	Transition 2009/10	Ongoing 2010/11	Ongoing 2011/12	Ongoing 2012/13	10 Year NPV
INDUSTRY	Transition costs	Consider move to SP/Exemption		-£16,380	-£16,380	-£16,380		**-£44,339**
		Apply for SP		-£85,628	-£85,628	-£85,628		**-£231,787**
		Apply for Exemption		£0	£0	£0		**£0**
		Understand guidance		-£49,140	£0	£0		**-£45,873**
	Simplified guidance	Applications		£24,079	£24,079	£24,079	£24,079	**£176,988**
		Variations		£25,118	£25,118	£25,118	£25,118	**£184,624**
		Transfers		£0	£0	£0	£0	**£0**
		Surrenders/lapses and revocations		£21,818	£21,818	£21,818	£21,818	**£160,373**
	Integration of regimes	Applications (inc consultations)		£0	£0	£0	£0	**£0**
		Variations		£0	£0	£0	£0	**£0**
		Transfers		£0	£0	£0	£0	**£0**
		Surrenders/lapses and revocations		£0	£0	£0	£0	**£0**
		Integrated inspections		£0	£0	£0	£0	**£0**
	Operator permits	Multiple applications under 1 form		£0	£0	£0	£0	**£0**
	Standard permits	Applications		£48,157	£48,157	£48,157	£48,157	**£353,976**
		Subsistence (>flexibility, <inspections)		£5,645	£5,645	£5,645	£5,645	**£41,489**
		Variations		£37,982	£37,982	£37,982	£37,982	**£279,186**
	Exemp-tions	Annual savings on new applications		£0	£0	£0	£0	**£0**
		Annual savings on transfers		£0	£0	£0	£0	**£0**
	Stream-lining	New dispensations for transfers		£0	£22,408	£22,408	£22,408	**£143,789**
		Streamlined permit revocation (DCs)		£0	£0	£0	£0	**£0**
		Streamlined RSR variations		£0	£175,823	£175,823	£175,823	**£1,128,238**
	Mining waste	Savings on application - existing sites		£0	£0	£0	£0	**£0**
		Savings on application - new sites		£0	£0	£0	£0	**£0**
	INDUSTRY TOTALS		£0	£11,650	£259,021	£259,021	£361,029	**£2,146,666**
ENVIRONMENT AGENCY	Preparation costs	Input into regulatory process	-£35,120					**-£33,933**
		Net IT costs	£0	£0	£0	£0	£0	**£0**
		Staff training/reading guidance	-£65,471					**-£63,257**
		Develop SPs and consultations	-£75,000					**-£72,464**
		Rewrite guidance	-£35,120					**-£33,933**
		Amalgamating public registers	-£26,513					**-£25,616**
	Trans-ition costs	Move to SPs		-£41,693	-£41,693	-£41,693		**-£112,859**
		Move to Exemptions		£0	£0	£0		**£0**
		Reduction in process efficiency		-£13,439				**-£12,545**
	Integration of regimes	Applications (inc consultations)		£0	£0	£0	£0	**£0**
		Variations		£0	£0	£0	£0	**£0**
		Transfers		£0	£0	£0	£0	**£0**
		Surrenders/lapses and revocations		£0	£0	£0	£0	**£0**
		Integrated inspections		£0	£0	£0	£0	**£0**
	Operator permits	Multiple applications under 1 form		£0	£0	£0	£0	**£0**
	Standard permits	Applications		£9,212	£9,212	£9,212	£9,212	**£67,710**
		Subsistence		£16,844	£16,844	£16,844	£16,844	**£123,810**
		Variations		£27,373	£27,373	£27,373	£27,373	**£201,201**
	Exemp-tions	Annual savings on new applications		£0	£0	£0	£0	**£0**
		Annual savings on transfers		£0	£0	£0	£0	**£0**
	Stream-lining	New dispensations for transfers		£0	-£2,552	£2,546	£2,546	**£11,738**
		Streamlined RSR variations		£0	£126,710	£126,710	£126,710	**£813,087**
		Reduced number of consultations		£14,056	£14,056	£14,056	£14,056	**£103,320**
	Other savings	Policy and process savings		£14,405	£14,405	£14,405	£14,405	**£105,884**
		Admin savings		£3,201	£3,201	£3,201	£3,201	**£23,530**
	ENVIRONMENT AGENCY TOTALS		-£237,224	£29,959	£167,556	£172,654	£214,347	**£1,095,675**
CONSULTEES	Costs	Input into rewriting of guidance	-£3,512					**-£3,393**
		SP consultations	-£12,837					**-£12,403**
	Savings	Integrated consultations		£0	£0	£0	£0	**£0**
		Standard Permitting		£3,212	£3,212	£3,212	£3,212	**£23,612**
		Reduced number of consultations		£11,389	£11,389	£11,389	£11,389	**£83,713**
	CONSULTEE TOTALS		-£16,349	£14,601	£14,601	£14,601	£14,601	**£91,529**
Monetised CO_2 Savings				£0	£0	£0	£0	**£0**
TOTALS: INDUSTRY, EA, CONSULTEES & CO_2			**-£253,573**	**£56,211**	**£441,178**	**£446,276**	**£589,977**	**£3,333,870**

Table 11. Costs and benefits for the nuclear Radioactive Substances Regulation regime in England and Wales

EPP2 Costs & Benefits Matrix Nuclear			Preparation	Transition	Ongoing			
			2008/09	2009/10	2010/11	2011/12	2012/13	10 Year NPV
INDUSTRY	Transition costs	Consider move to SP/Exemption		£0	£0	£0		£0
		Apply for SP		£0	£0	£0		£0
		Apply for Exemption		£0	£0	£0		£0
		Understand guidance		£0	£0	£0		£0
	Simplified guidance	Applications		£0	£0	£0	£0	£0
		Variations		£0	£0	£0	£0	£0
		Transfers		£0	£0	£0	£0	£0
		Surrenders/lapses and revocations		£0	£0	£0	£0	£0
	Integration of regimes	Applications (inc consultations)		£0	£0	£0	£0	£0
		Variations		£0	£0	£0	£0	£0
		Transfers		£0	£0	£0	£0	£0
		Surrenders/lapses and revocations		£0	£0	£0	£0	£0
		Integrated inspections		£0	£0	£0	£0	£0
	Operator permits	Multiple applications under 1 form		£0	£0	£0	£0	£0
	Standard permits	Applications		£0	£0	£0	£0	£0
		Subsistence (>flexibility, <inspections)		£0	£0	£0	£0	£0
		Variations		£0	£0	£0	£0	£0
	Exemp-tions	Annual savings on new applications		£0	£0	£0	£0	£0
		Annual savings on transfers		£0	£0	£0	£0	£0
	Stream-lining	New dispensations for transfers		£0	£0	£0	£0	£0
		Streamlined permit revocation (DCs)		£0	£0	£0	£0	£0
		Streamlined RSR variations		£0	£265,356	£265,356	£265,356	£1,702,768
	Mining waste	Savings on application - existing sites		£0	£0	£0	£0	£0
		Savings on application - new sites		£0	£0	£0	£0	£0
	INDUSTRY TOTALS		£0	£0	£265,356	£265,356	£265,356	£1,702,768
ENVIRONMENT AGENCY	Preparation costs	Input into regulatory process	-£35,120					-£33,933
		Net IT costs	£0	£0	£0	£0	£0	£0
		Staff training/reading guidance	-£65,471					-£63,257
		Develop SPs and consultations	£0					£0
		Rewrite guidance	-£70,240					-£67,865
		Amalgamating public registers	-£256					-£247
	Trans-ition costs	Move to SPs		£0	£0	£0		£0
		Move to Exemptions		£0	£0	£0		£0
		Reduction in process efficiency		-£18,108				-£16,904
	Integration of regimes	Applications (inc consultations)		£0	£0	£0	£0	£0
		Variations		£0	£0	£0	£0	£0
		Transfers		£0	£0	£0	£0	£0
		Surrenders/lapses and revocations		£0	£0	£0	£0	£0
		Integrated inspections		£0	£0	£0	£0	£0
	Operator permits	Multiple applications under 1 form		£0	£0	£0	£0	£0
	Standard permits	Applications		£0	£0	£0	£0	£0
		Subsistence		£0	£0	£0	£0	£0
		Variations		£0	£0	£0	£0	£0
	Exemp-tions	Annual savings on new applications		£0	£0	£0	£0	£0
		Annual savings on transfers		£0	£0	£0	£0	£0
	Stream-lining	New dispensations for transfers		£0	£0	£0	£0	£0
		Streamlined RSR variations		£0	£327,059	£327,059	£327,059	£2,098,711
		Reduced number of consultations		£0	£0	£0	£0	£0
	Other savings	Policy and process savings		£22,140	£22,140	£22,140	£22,140	£162,735
		Admin savings		£4,920	£4,920	£4,920	£4,920	£36,163
	ENVIRONMENT AGENCY TOTALS		-£171,087	£8,952	£354,119	£354,119	£354,119	£2,115,404
CONSULTEES	Costs	Input into rewriting of guidance	-£7,024					-£6,787
		SP consultations	-£12,837					-£12,403
	Savings	Integrated consultations		£0	£0	£0	£0	£0
		Standard Permitting		£0	£0	£0	£0	£0
		Reduced number of consultations		£0	£0	£0	£0	£0
	CONSULTEE TOTALS		-£19,861	£0	£0	£0	£0	-£19,189
Monetised CO_2 Savings				£0	£0	£0	£0	£0
TOTALS: INDUSTRY, EA, CONSULTEES & CO_2			-£190,948	£8,952	£619,475	£619,475	£619,475	£3,798,982

Table 12. Combined costs and benefits for the nuclear and non-nuclear Radioactive Substances Regulation regime in England and Wales

EPP2 Costs & Benefits Matrix Nuclear and Non-Nuclear Combined			Preparation 2008/09	Transition 2009/10	Ongoing 2010/11	Ongoing 2011/12	Ongoing 2012/13	10 Year NPV
INDUSTRY	Transition costs	Consider move to SP/Exemption		-£16,380	-£16,380	-£16,380		**-£44,339**
		Apply for SP		-£85,628	-£85,628	-£85,628		**-£231,787**
		Apply for Exemption		-£27,099	-£27,099	-£27,099		**-£75,922**
		Understand guidance		-£49,140	£0	£0		**-£45,873**
	Simplified guidance	Applications		£24,079	£24,079	£24,079	£24,079	**£176,988**
		Variations		£25,118	£25,118	£25,118	£25,118	**£184,624**
		Transfers		£0	£0	£0	£0	**£0**
		Surrenders/lapses and revocations		£21,818	£21,818	£21,818	£21,818	**£160,373**
	Integration of regimes	Applications (inc consultations)		£0	£0	£0	£0	**£0**
		Variations		£0	£0	£0	£0	**£0**
		Transfers		£0	£0	£0	£0	**£0**
		Surrenders/lapses and revocations		£0	£0	£0	£0	**£0**
		Integrated inspections		£0	£0	£0	£0	**£0**
	Operator permits	Multiple applications under 1 form		£0	£0	£0	£0	**£0**
	Standard permits	Applications		£48,157	£48,157	£48,157	£48,157	**£353,976**
		Subsistence (>flexibility, <inspections)		£5,645	£5,645	£5,645	£5,645	**£41,489**
		Variations		£37,982	£37,982	£37,982	£37,982	**£279,186**
	Exemp-tions	Annual savings on new applications		£0	£0	£0	£0	**£0**
		Annual savings on transfers		£0	£0	£0	£0	**£0**
	Stream-lining	New dispensations for transfers		£0	£22,408	£22,408	£22,408	**£143,789**
		Streamlined permit revocation (DCs)		£0	£0	£0	£0	**£0**
		Streamlined RSR variations		£0	£441,179	£441,179	£441,179	**£2,831,006**
	Mining waste	Savings on application - existing sites		£0	£0	£0	£0	**£0**
		Savings on application - new sites		£0	£0	£0	£0	**£0**
	INDUSTRY TOTALS		£0	-£15,449	£497,278	£497,278	£626,385	**£3,773,512**
ENVIRONMENT AGENCY	Preparation costs	Input into regulatory process	-£70,240					**-£67,865**
		Net IT costs	£0	£0	£0	£0	£0	**£0**
		Staff training/reading guidance	-£130,941					**-£126,513**
		Develop SPs and consultations	-£75,000					**-£72,464**
		Rewrite guidance	-£105,361					**-£101,798**
		Amalgamating public registers	-£26,768					**-£25,863**
	Trans-ition costs	Move to SPs		-£41,693	-£41,693	-£41,693		**-£112,859**
		Move to Exemptions		£0	£0	£0		**£0**
		Reduction in process efficiency		-£31,546				**-£29,449**
	Integration of regimes	Applications (inc consultations)		£0	£0	£0	£0	**£0**
		Variations		£0	£0	£0	£0	**£0**
		Transfers		£0	£0	£0	£0	**£0**
		Surrenders/lapses and revocations		£0	£0	£0	£0	**£0**
		Integrated inspections		£0	£0	£0	£0	**£0**
	Operator permits	Multiple applications under 1 form		£0	£0	£0	£0	**£0**
	Standard permits	Reduced number of consultations		£9,212	£9,212	£9,212	£9,212	**£67,710**
		Standard permits		£16,844	£16,844	£16,844	£16,844	**£123,810**
		Applications		£27,373	£27,373	£27,373	£27,373	**£201,201**
	Exemp-tions	Annual savings on new applications		£0	£0	£0	£0	**£0**
		Annual savings on transfers		£0	£0	£0	£0	**£0**
	Stream-lining	New dispensations for transfers		£0	-£2,552	£2,546	£2,546	**£11,738**
		Streamlined RSR variations		£0	£453,769	£453,769	£453,769	**£2,911,798**
		Reduced number of consultations		£14,056	£14,056	£14,056	£14,056	**£103,320**
	Other savings	Policy and process savings		£36,545	£36,545	£36,545	£36,545	**£268,619**
		Admin savings		£8,121	£8,121	£8,121	£8,121	**£59,693**
	ENVIRONMENT AGENCY TOTALS		-£408,310	£38,911	£521,675	£526,773	£568,466	**£3,211,079**
CONSULTEES	Costs	Input into rewriting of guidance	-£10,536					**-£10,180**
		SP consultations	-£25,674					**-£24,806**
	Savings	Integrated consultations		£0	£0	£0	£0	**£0**
		Standard Permitting		£3,212	£3,212	£3,212	£3,212	**£23,612**
		Reduced number of consultations		£11,389	£11,389	£11,389	£11,389	**£83,713**
	CONSULTEE TOTALS		-£36,210	£14,601	£14,601	£14,601	£14,601	**£72,340**
Monetised CO_2 Savings				£0	£0	£0	£0	**£0**
TOTALS: INDUSTRY, EA & CONSULTEES			**-£444,520**	**£65,162**	**£1,060,653**	**£1,065,751**	**£1,209,452**	**£7,132,852**

Mining Waste Directive

3.35. The Mining Waste Directive (Directive 2006/21/EC) is a new directive relating to the management of waste from the extractive industries. The Government intends to transpose the Directive through EPP2 with the Environment Agency as the principal competent authority. To achieve this, regulations will be brought forward as soon as possible, subject to Parliamentary process and approval. The Government considered and consulted on several regulatory options:

- Delivery through the existing town and country planning and environmental discharge consent regimes
- Delivery through the EPP with the Minerals and Waste Planning Authority (MWPA) as the competent authority or "regulator"
- Delivery through the EPP with the Environment Agency the competent authority or "regulator" (save for some separate, 'stand-alone' provisions to deliver requirements relating to major accident prevention and emergency planning)
- Delivery through the planning system and EPP (specifically, with the permit requirements for waste facilities under Article 7 of the Directive delivered through the EPP)

3.36. Using information taken from the MWD IA[10] we have calculated the cost avoidance of transposing and implementing the MWD through EPP2 with the Environment Agency as regulator compared with the other options identified in the impact assessment (see Table 13). The headline benefits are estimated at £4.4 million NPV over ten years (for England and Wales). Table 5.10a in the MWD IA shows that the EP system can deliver the requirements of the MWD at lowest cost. This, together with the relative cost savings between operators and public sector in Table 5.9d, in the MWD IA, is used to calculate the ten year NPV cost benefit used in this document.

Table 13. Estimated savings of implementing the Mining Waste Directive for England and Wales

Savings Comparison	10 year NPV (millions)
Option 1 (current planning regime) vs. Option 2a (use of MWPA)	£4.3
Option 1 vs. Option 2b (EPP)	**£4.4**
Option 1 vs. Option 3 (Hybrid)	£0.3

Batteries Directives

3.37. The Batteries Directive (2006/66/EC) is also a new directive. It seeks to improve environmental performance at each stage in the life cycle of batteries and accumulators, e.g. production, distribution and end use, and particularly, the treatment and recycling of waste batteries and accumulators. It is proposed to transpose some of the BD requirements through the EP Regulations (Article 12(1) tailpiece, Articles 12(2)-(4) and Article 14). Other BD requirements will be transposed through a producer responsibility scheme (not linked to the EP Regulations).

3.38. It is estimated that there will be few sites, certainly less than ten across England and Wales, subject to the permitting requirements of the BD. These sites will also be required to have a Waste Framework Directive permit and possibly a Waste Electrical and Electronic Equipment Directive Permit, i.e. EP regime permits. First, we estimated the set-up and ongoing costs to the anticipated regulator (the Environment Agency) of using a separate new system (i.e. the baseline scenario) and secondly, the cost savings of implementing using EP. The costs avoided are estimated at about £1.0 million NPV over ten years in England and Wales for the Environment Agency (see Table 14).

3.39. We have not at this stage attempted to quantify the cost savings to industry because so few sites are anticipated to have a BD permit. We do think that there are savings for industry in

[10] http://www.communities.gov.uk/documents/planningandbuilding/pdf/651225.pdf (Annex F)

being able to apply (in one step) for an EP permit rather than an EP waste permit and non-EP batteries permit. While such industry savings might be small in total, they may be significant at an individual site level and could be investigated further as the policy develops.

Table 14. Savings for implementing the Batteries Directive using EPP for England and Wales

Environment Agency Setup Costs				
Without EPP				
Function	**Description**	**%**	**@/year**	**Cost**
Project Manager	1/2 G6	50%	£65,223	£32,612
Project Board	8 * Senior Managers 1/20 of portfolio	40%	£92,000	£36,800
Legal	1/3 G6	33%	£65,223	£21,741
Finance	1/2 G5	50%	£47,680	£23,840
Communications	1/2 G4	50%	£36,921	£18,461
Policy	1/2 G6	50%	£65,223	£32,612
Process	1/2 G5	50%	£47,680	£23,840
Total without EPP costs				**£189,905**
With EPP				
Function	**Description**	**%**	**@/year**	**Cost**
Policy	1/3 G6	33%	£65,223	£21,741
Process	1/3 G5	33%	£47,680	£15,893
Total with EPP costs				**£37,634**
EPP Savings on setup	**£152,270**			

Environment Agency Ongoing Cost				
	Without EPP		**With EPP**	
Function	**%**	**Cost**	**%**	**Cost**
Process G5	100%	£47,680	25%	£11,920
Policy G6	100%	£65,223	25%	£16,306
Total per year		£112,903		£28,226
Total ongoing saving/year	**£84,677**			
10 Year NPV of EPP	**£704,229**			
Total EPP savings (£m 10 Years NPV)	**£0.9**			

Water Abstraction and Impoundment baseline

3.40. The baseline costs are shown in Table 15.

3.41. WAI has been through a modernisation initiative under the Water Act 2003 (Water Act) that will continue to be delivered into 2008. As a consequence the Environment Agency is pursuing a productivity project called Streamlining Abstraction Processes (SAP). We have developed our baseline building onto the SAP changes. The Water Act deregulated smaller abstraction permits which led to a significant drop in the number of extant permits (from about 46,000 to 23,000).

3.42. The Water Act changes achieved a stand-alone functional modernisation in line with the decisions in 'Taking Water Responsibly'[11]. It was never intended to achieve a one-site one-permit approach for operators holding abstraction licences and other environmental permits, which is something that respondents to the first and second EPP consultations suggested[12].

3.43. Licences are split into three categories: temporary (<28 days), transfer, and full licences. Full licences have protected rights. All new licences are time limited but can be renewed. Of the current 22,856 licences, only 3,925 have an expiry date/time. The EP Regulations would not

[11] http://www.defra.gov.uk/environment/water/legislation/default.htm
[12] Available from the EPP team by emailing eppadministrator@defra.gsi.gov.uk

change the policy position for protected rights and continue to allow for the time-limitation of permits.

Table 15. Baseline annual costs for the Water Abstraction and Impoundment regime in England and Wales

Process	Description	Quantity	Environment Agency	Industry
Applications	New full licences	169	£315,854	£285,681
	Temporary abstraction licences	30	£73,384	£44,816
	New transfer licences	43	£105,184	£72,688
	Time limit renewals	425	£426,356	£478,952
	Advertise	479	£26,330	
Variation, transfers & surrenders	Downward variations	73	£3,311	£11,479
	Minor amendments	618	£28,026	£97,179
	Transfers	1,000	£45,350	£167,076
	Apportionments (division/transfer)	100	£4,535	£16,708
	Revoked/lapsed/expired	1,599	£72,514	£251,440
Variations (EA initiated)	Appeal for compensation	0	£0	£0
	Upward variations	291	£543,867	£491,912
Subsistence	Monitoring & compliance	1,900	£313,215	£298,771
	Inspections	12,067	£981,706	£711,568
	Licence administration	22,856	£261,297	
Subtotal			**£3,200,928**	**£2,928,269**
Other	IT costs		£5,277,000	
	EA policy		£1,110,000	
	EA process		£579,000	
	Direct services & other		£14,049,000	
TOTALS			**£24,215,928**	**£2,928,269**

Notes:
- Includes Impoundment licences.
- ‘Direct services & other’ includes finance, legal, admin, vehicle ops, labs, depreciation.

Water Abstraction and Impoundment benefits

3.44. The estimated costs and benefits for the WAI regime are presented in Table 16.

3.45. Due to WAI licences commonly going hand in hand with discharge consents (as well as potentially other permit types), the benefits for this regime primarily arise through savings associated with permitting integration. An estimated £2.0 million NPV of savings are realised over ten years for England and Wales through integrated permit applications alone, and further savings are observed for the other licensing-related and site inspection activities.

Water Abstraction and Impoundment summary

3.46. It is estimated that the total NPV of using EP for Water Abstraction and Impoundment is £3.9 million over ten years for England and Wales (£2.8 million to industry, £0.8 million to the Environment Agency and £0.3 million to consultees). The annual steady state savings are equivalent to 3 per cent of the baseline administrative burden costs (split between industry 71 per cent the Environment Agency 21 per cent and consultees 7 per cent[13]).

[13] See table 3.

Table 16. Costs and benefits for the Water Abstraction and Impoundment regime in England and Wales

EPP2 Costs & Benefits Matrix Water Abstraction			Preparation 2008/09	Transition 2009/10	Ongoing 2010/11	 2011/12	 2012/13	 10 Year NPV
INDUSTRY	Transition costs	Consider move to SP/Exemption		-£17,502	-£17,502	-£17,502		**-£47,375**
		Apply for SP		-£83,861	-£83,861	-£83,861		**-£227,004**
		Apply for Exemption		£0	£0	£0		**£0**
		Understand guidance		-£512,786	£0	£0		**-£478,691**
	Simplified guidance	Applications		£17,643	£17,643	£17,643	£17,643	**£129,681**
		Variations		£10,068	£10,068	£10,068	£10,068	**£74,003**
		Transfers		£3,676	£3,676	£3,676	£3,676	**£27,018**
		Surrenders/lapses and revocations		£6,972	£6,972	£6,972	£6,972	**£51,250**
	Integration of regimes	Applications (inc consultations)		£224,435	£224,435	£224,435	£224,435	**£1,649,695**
		Variations		£22,681	£22,681	£22,681	£22,681	**£166,717**
		Transfers		£13,986	£13,986	£13,986	£13,986	**£102,801**
		Surrenders/lapses and revocations		£84,619	£84,619	£84,619	£84,619	**£621,983**
		Integrated inspections		£41,462	£41,462	£41,462	£41,462	**£304,762**
	Operator permits	Multiple applications under 1 form		£3,968	£3,968	£3,968	£3,968	**£29,164**
	Standard permits	Applications		£31,757	£31,757	£31,757	£31,757	**£233,427**
		Subsistence (>flexibility, <inspections)		£2,027	£2,027	£2,027	£2,027	**£14,900**
		Variations		£14,340	£14,340	£14,340	£14,340	**£105,408**
	Exemptions	Annual savings on new applications		£0	£0	£0	£0	**£0**
		Annual savings on transfers		£0	£0	£0	£0	**£0**
	Streamlining	New dispensations for transfers		£0	£0	£0	£0	**£0**
		Streamlined permit revocation (DCs)		£0	£0	£0	£0	**£0**
		Streamlined RSR variations		£0	£0	£0	£0	**£0**
	Mining waste	Savings on application - existing sites		£0	£0	£0	£0	**£0**
		Savings on application - new sites		£0	£0	£0	£0	**£0**
	INDUSTRY TOTALS		£0	-£136,516	£376,270	£376,270	£477,634	**£2,757,737**
ENVIRONMENT AGENCY	Preparation costs	Input into regulatory process	-£65,223					**-£63,018**
		Net IT costs	-£500,000	£26,596	£26,596	£26,596	£26,596	**-£287,602**
		Staff training/reading guidance	-£201,404					**-£194,593**
		Develop SPs and consultations	-£75,000					**-£72,464**
		Rewrite guidance	-£65,223					**-£63,018**
		Amalgamating public registers	-£136,728					**-£132,104**
	Transition costs	Move to SPs		-£70,215	-£70,215	-£70,215		**-£190,065**
		Move to Exemptions		£0	£0	£0		**£0**
		Reduction in process efficiency		-£57,754				**-£53,914**
	Integration of regimes	Applications (inc consultations)		£43,283	£43,283	£43,283	£43,283	**£318,147**
		Variations		£14,551	£14,551	£14,551	£14,551	**£106,955**
		Transfers		£4,005	£4,005	£4,005	£4,005	**£29,439**
		Surrenders/lapses and revocations		£13,297	£13,297	£13,297	£13,297	**£97,737**
		Integrated inspections		£66,068	£66,068	£66,068	£66,068	**£485,626**
	Operator permits	Multiple applications under 1 form		-£213	-£213	-£213	-£213	**-£1,569**
	Standard permits	Applications		£42,620	£42,620	£42,620	£42,620	**£313,274**
		Subsistence		£10,623	£10,623	£10,623	£10,623	**£78,084**
		Variations		£15,588	£15,588	£15,588	£15,588	**£114,577**
	Exemptions	Annual savings on new applications		£0	£0	£0	£0	**£0**
		Annual savings on transfers		£0	£0	£0	£0	**£0**
	Streamlining	New dispensations for transfers		£0	£0	£0	£0	**£0**
		Streamlined RSR variations		£0	£0	£0	£0	**£0**
		Reduced number of consultations		£10,943	£10,943	£10,943	£10,943	**£80,436**
	Other savings	Policy and process savings		£11,916	£11,916	£11,916	£11,916	**£87,588**
		Admin savings		£22,223	£22,223	£22,223	£22,223	**£163,352**
	ENVIRONMENT AGENCY TOTALS		-£1,043,578	£153,530	£211,284	£211,284	£281,499	**£816,868**
CONSULTEES	Costs	Input into rewriting of guidance	-£6,522					**-£6,302**
		SP consultations	-£11,920					**-£11,517**
	Savings	Integrated consultations		£854	£854	£854	£854	**£6,279**
		Standard Permitting		£9,645	£9,645	£9,645	£9,645	**£70,896**
		Reduced number of consultations		£30,993	£30,993	£30,993	£30,993	**£227,811**
	CONSULTEE TOTALS		-£18,442	£41,492	£41,492	£41,492	£41,492	**£287,168**
Monetised CO_2 Savings				£166	£166	£166	£166	**£1,217**
TOTALS: INDUSTRY, EA, CONSULTEES & CO_2			**-£1,062,020**	**£58,671**	**£629,212**	**£629,212**	**£800,790**	**£3,862,989**

Waste Carriers and Brokers baseline

3.47. It is proposed in the second consultation on the 'Controls on the handling, transfer and transport of waste'[14] (June 2008) that any person who applies for a permit under the EP Regulations will not need to complete a separate application form if they want to register as a waste carrier and/or broker. Those not requiring an environmental permit will continue to register using the existing waste carrier and broker application process.

3.48. When an environmental permit is applied for there will be an option to declare if operators wish to carry and/or broker waste. It is thought that those operators holding other environmental permits are of lower risk in terms of waste crime and will already have an understanding of the EP Regulations. There are no consultees for C&B registrations and they are therefore not included in the baseline.

3.49. In establishing our baseline (see Table 17), we have assumed the other simplification changes proposed in the June 2008 consultation are taken forward (i.e. beyond being able to apply for an EP permit) and we have not included them in this IA. Overall the administrative burden of the regime is extremely small, with the registration form being simple to complete and simple to process.

Table 17. Baseline annual costs for the Waste Carriers & Brokers regime in England and Wales

Process	Description	Permit type	Quantity	Environment Agency	Industry
Application	Registration	Paper	5,445	£87,185	£135,135
		Electronic	5,445	£58,123	£67,568
		Convictions check	110	£6,458	
	Renewal	Paper	6,800	£72,587	£167,076
		Electronic	6,800	£36,294	£83,538
Variation	Notify change of details		3,600	£12,810	£44,226
Sub-Totals				**£273,456**	**£497,543**
Other	Compliance (roadside checks)			£1,975,000	£6,143
	IT costs			£83,000	
	EA policy			£197,000	
	EA process			£55,000	
	Direct services staff (finance, legal, admin)			£30,000	
	Other (e.g. vehicle ops, labs, depreciation)			£28,000	
Totals				**£2,641,456**	**£503,686**

Notes:

* Direct services staff (finance, legal, admin)

Carriers and Brokers benefits

3.50. The estimated costs and benefits for the C&B regime are presented in Table 18.

3.51. Benefits to C&B are more marginal than for other regimes, primarily because licensing requirements are already straightforward and of limited encumbrance to either industry or the Environment Agency (as regulator). However, where a company is involved with any other type of permit, under the proposed EPP2 system a simple check box within the generic application form can be used to register as a carrier or broker. In this instance, no additional form filling or discussions with the Environment Agency will need to be undertaken and the entire administrative burden associated with the current carriers and brokers system during applications or licence variations can be avoided. This is evident in Table 18 – the significant

[14] www.defra.gov.uk/corporate/consult/waste-controls/index.htm

annual cost savings being £56,000 per year for industry and £33,000 for the Environment agency through reduced specific Carriers and Brokers applications.

Carriers and Brokers summary

3.52. It is estimated that there is a potential benefit to those who also hold other environmental permits of £1.0 million NPV over ten years for England and Wales (£0.7 million to industry and £0.4 million to the Environment Agency. The annual steady state savings are equivalent to 5 per cent of the baseline administrative burden costs (split between industry 64 per cent and the Environment Agency 36 per cent[15]).

[15] See table 3.

Table 18. Costs and benefits for the Carriers and Brokers regime in England and Wales

EPP2 Costs & Benefits Matrix Carriers & Brokers			Preparation	Transition	Ongoing			
			2008/09	2009/10	2010/11	2011/12	2012/13	10 Year NPV
INDUSTRY	Transition costs	Consider move to SP/Exemption		£0	£0	£0		**£0**
		Apply for SP		£0	£0	£0		**£0**
		Apply for Exemption		£0	£0	£0		**£0**
		Understand guidance		-£3,471	£0	£0		**-£3,240**
	Simplified guidance	Applications		£3,303	£3,303	£3,303	£3,303	**£24,277**
		Variations		£0	£0	£0	£0	**£0**
		Transfers		£0	£0	£0	£0	**£0**
		Surrenders/lapses and revocations		£0	£0	£0	£0	**£0**
	Integration of regimes	Applications (inc consultations)		£56,158	£56,158	£56,158	£56,158	**£412,786**
		Variations		£29,920	£29,920	£29,920	£29,920	**£219,926**
		Transfers		£0	£0	£0	£0	**£0**
		Surrenders/lapses and revocations		£0	£0	£0	£0	**£0**
		Integrated inspections		£0	£0	£0	£0	**£0**
	Operator permits	Multiple applications under 1 form		£0	£0	£0	£0	**£0**
	Standard permits	Applications		£0	£0	£0	£0	**£0**
		Subsistence (>flexibility, <inspections)		£0	£0	£0	£0	**£0**
		Variations		£0	£0	£0	£0	**£0**
	Exemp-tions	Annual savings on new applications		£0	£0	£0	£0	**£0**
		Annual savings on transfers		£0	£0	£0	£0	**£0**
	Stream-lining	New dispensations for transfers		£0	£0	£0	£0	**£0**
		Streamlined permit revocation (DCs)		£0	£0	£0	£0	**£0**
		Streamlined RSR variations		£0	£0	£0	£0	**£0**
	Mining waste	Savings on application - existing sites		£0	£0	£0	£0	**£0**
		Savings on application - new sites		£0	£0	£0	£0	**£0**
	INDUSTRY TOTALS		£0	£85,911	£89,381	£89,381	£89,381	**£653,749**
ENVIRONMENT AGENCY	Preparation costs	Input into regulatory process	-£16,306					**-£15,754**
		Net IT costs	-£100,000	£5,319	£5,319	£5,319	£5,319	**-£57,520**
		Staff training/reading guidance	-£10,155					**-£9,811**
		Develop SPs and consultations	£0					**£0**
		Rewrite guidance	-£6,522					**-£6,302**
		Amalgamating public registers	£0					**£0**
	Trans-ition costs	Move to SPs		£0	£0	£0		**£0**
		Move to Exemptions		£0	£0	£0		**£0**
		Reduction in process efficiency		-£5,469				**-£5,105**
	Integration of regimes	Applications (inc consultations)		£33,015	£33,015	£33,015	£33,015	**£242,675**
		Variations		£25,251	£25,251	£25,251	£25,251	**£185,608**
		Transfers		£0	£0	£0	£0	**£0**
		Surrenders/lapses and revocations		£0	£0	£0	£0	**£0**
		Integrated inspections		£0	£0	£0	£0	**£0**
	Operator permits	Multiple applications under 1 form		£0	£0	£0	£0	**£0**
	Standard permits	Applications		£0	£0	£0	£0	**£0**
		Subsistence		£0	£0	£0	£0	**£0**
		Variations		£0	£0	£0	£0	**£0**
	Exemp-tions	Annual savings on new applications		£0	£0	£0	£0	**£0**
		Annual savings on transfers		£0	£0	£0	£0	**£0**
	Stream-lining	New dispensations for transfers		£0	£0	£0	£0	**£0**
		Streamlined RSR variations		£0	£0	£0	£0	**£0**
		Reduced number of consultations		£0	£0	£0	£0	**£0**
	Other savings	Policy and process savings		£3,961	£3,961	£3,961	£3,961	**£29,118**
		Admin savings		£0	£0	£0	£0	**£0**
	ENVIRONMENT AGENCY TOTALS		-£132,983	£62,078	£67,547	£67,547	£67,547	**£362,908**
CONSULTEES	Costs	Input into rewriting of guidance	£0					**£0**
		SP consultations	£0					**£0**
	Savings	Integrated consultations		£0	£0	£0	£0	**£0**
		Standard Permitting		£0	£0	£0	£0	**£0**
		Reduced number of consultations		£0	£0	£0	£0	**£0**
	CONSULTEE TOTALS		£0	£0	£0	£0	£0	**£0**
Monetised CO_2 Savings				£0	£0	£0	£0	**£0**
TOTALS: INDUSTRY, EA, CONSULTEES & CO_2			**-£132,983**	**£147,989**	**£156,928**	**£156,928**	**£156,928**	**£1,016,657**

4. Implementation, enforcement and sanctions

4.1. The Environment Agency is the regulator (or proposed regulator) for each of the EPP2 regimes. It is part of the joint team developing EPP2, and implementation issues have been considered throughout the policy development process. The proposals do not change the role of the Environment Agency as regulator for the EPP2 candidate regimes[16]. Neither is it anticipated that there would be alterations in the compliance assessment undertaken by the regulator beyond those changes already underway as part of the Environment Agency's modernisation programme.

4.2. The Hampton principles (see Box 2) have been considered with regard to EPP2 enforcement options. EPP2 covers neither novel criminal sanctions nor civil penalties. Defra's Fairer and Better Environmental Enforcement Project is developing possible proposals for a new framework for environmental enforcement and sanctions. This will include proposals for introducing civil administrative sanctions as part of a more graduated set of enforcement measures[17].

4.3. The Environment Agency is developing its Operational Risk Appraisal (Opra) tool, extending its risk-based approach where appropriate to the candidate EPP2 (and other) regimes. These developments are linked to the Environment Agency's Unified Charging Framework[18] tiers. The full Opra methodology only applies to activities with bespoke permits, with a simplified approach being taken for the rest.

Box 2: Enforcement: the Hampton Principles

- **Regulators, and the regulatory system as a whole, should use comprehensive risk assessment to concentrate resources on the areas that need them most.**
- **Regulators should be accountable for the efficiency and effectiveness of their activities, while remaining independent in the decisions they take.**
- **All regulations should be written so that they are easily understood, easily implemented, and easily enforced, and all interested parties should be consulted when they are being drafted.**
- **No inspection should take place without a reason.**
- **Business should not have to give unnecessary information, nor give the same piece of information twice.**
- **The few businesses that persistently break regulations should be identified quickly, and face proportionate meaningful sanctions.**
- **Regulators should provide authoritative, accessible advice easily and cheaply.**
- **When new policies are being developed, explicit consideration should be given to how they can be enforced using existing regimes and data to minimise the administrative burden imposed.**
- **Regulators should be of the right size and scope, and no new regulator should be created where an existing one can do the work; regulators should recognise that a key element of their activity will be to allow, or even encourage, economic progress and only to intervene when there is a clear case for protection.**

[16] The Mining Waste and Batteries Directives, as new directives, have no existing regulator and the Environment Agency is the proposed regulator for the EPP2 parts of these directives.
[17] http://www.defra.gov.uk/environment/enforcement/index.htm
[18] http://www.environment-agency.gov.uk/business/regulation/38837.aspx

Specific Impact Tests: Checklist

Use the table below to demonstrate how broadly you have considered the potential impacts of your policy options.

Ensure that the results of any tests that impact on the cost-benefit analysis are contained within the main evidence base; other results may be annexed.

Type of testing undertaken	Results in Evidence Base?	Results annexed?
Competition Assessment	No	Yes
Small Firms Impact Test	No	Yes
Legal Aid	No	No
Sustainable Development	No	No
Carbon Assessment	No	Yes
Other Environment	No	No
Health Impact Assessment	No	No
Race Equality	No	No
Disability Equality	No	No
Gender Equality	No	No
Human Rights	No	No
Rural Proofing	No	Yes

Annexes

Annex A

Types of operators involved in the QA of the baseline and benefits assessment

A1. Table A1 shows the number and type of operators interviewed as part of the research into the costs and benefits of the proposed changes. In total, over 300 operators were contacted directly. 35 operators were interviewed, some of whom answered questions on more than one regime and some had several hundred permits within a regime.

A2. The anonymous interviews focused on obtaining the costs to each operator of administering the current regime, from pre-licence application through to surrender. From this, the cost implications of the proposed changes were estimated.

A3. For many operators it was not possible to gather all the information required, since not all operators had transferred, modified or surrendered permits. In addition, some permits were granted before the relevant person was employed by the company.

Table A1. The number and type of operators interviewed as part of research into the costs and benefits of the proposed changes to the Environmental Permitting Programme.

Type of operators interviewed (and number when more than one)	
Agricultural research	Material scientist (2)
Chemistry & analysis	Motor vehicle salvage (2)
Concrete production	Nature reserve
Construction/geotechnical engineer (2)	Other
Consulting engineer	Paper manufacturer
Farm (3)	Pharmaceutical production
Fish farm	Power generation (2)
Garage	Radioactive source supplier
Golf club	Radiographer
Hospital	School
Householder	Scrap metal recycler (2)
Housing association	Waste management
Housing developer	Water company (3)

Specific impact checklist

B1. Each of the tests in the Specific Impact Checklist has been considered for EPP2 (see Checklist above). The anticipated effect of the proposed Regulations on competition, small firms, carbon assessment and rural proofing are included below. While quality assuring estimates with industry, care was taken to examine these potential issues. None of the other impacts from the Checklist are considered relevant.

Competition Assessment

B2. Considering the four questions posed in the competition assessment laid out by the Office of Fair Trading[19], the Regulations are not expected to either directly or indirectly limit the number or range of suppliers. The Regulations are not expected to limit the ability of the suppliers to compete or to reduce suppliers' incentives to compete vigorously.

B3. 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. The Environment Agency will be conducting its own public consultation (with an IA) on charging for EPP2.

Small Firm Impact Assessment

B4. 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 EPP 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. EPP's focus on reducing administrative burdens, and its risk-based approach allow us to minimise burdens to all regulated businesses, but its benefits will be greatest for small businesses who have less time to spend on administration.

B5. Of those operators interviewed to quality assure (QA) the data in this IA, 19 were small firms.

B6. The QA 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 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.

Carbon Assessment

B7. It is not considered there will be significant effects on emissions of greenhouse gases as a result of the implementation of this policy. Therefore, a full carbon assessment is not appropriate. However, incorporation of the candidate regimes into the single system may reduce the number of sites visits as a result of a single, combined inspection. Analysis carried out predicts a saving in fuel usage resulting in the saving of 23 tonnes of carbon dioxide per year. Using the Defra shadow rate for carbon of £26.48, this generates a saving of £600 per year.

Rural Proofing

B8. No consequences are expected to arise from the additional changes being considered under the proposal. Rural communities often have a higher proportion of smaller businesses and so

[19] Office of Fair Trading (August 2007) *Completing competition assessments in Impact Assessments: Guideline for policy makers*. OFT876

this proposal may reduce barriers to entry for smaller, more dispersed rural markets, leading to increased competition and decreased centralisation of services.

Annex C

Macro assumptions used for baselines and benefits estimates

Industry baselines

C1. Assumptions within industry sectors are shown in Table C1. Specific assumptions were made for the Carriers & Brokers and RSR regimes.

Table C1. Industry wage rates including on-costs for England and Wales

		Carriers and Brokers	RSR	Other
Professional	Annual	£40,000	£90,000	£70,000
	Hourly	£24.57	£55.28	£43.00
Non-professional	Annual	£25,000	£40,000	£40,000
	Hourly	£15.36	£24.57	£24.57

Source: Based on EPP1 RIA figures with adjustments for RSR and Carriers and Brokers regimes

Notes:

1. Assumed industry productivity assumptions are for 220 productive days a year of 7.4 hours in length.
2. Professional staff include: company owner, directors, senior managers, other managers, internal professionals (e.g. lawyers, accountants) and technicians/officers (e.g. building inspectors, estate agents, vets).
3. Non-professional staff include: clerical staff and skilled/unskilled trades.
4. Includes on-costs (e.g. employer's National Insurance contributions, employer's pension contributions) but not cost of support staff activities.

C2. The assumed mix of staff required to achieve different tasks is shown in Table C2.

Table C2. Assumed allocation of resources by industry for permitting tasks

		Applications, Variations & Subsistence	Appeals	Transfer & Surrenders
Senior Managers	Professional Rates	10%	10%	5%
Internal Professionals		10%	50%	0%
Technicians/Officers		60%	30%	60%
Administrative and Clerical Staff	Non-Professional Rates	20%	10%	35%

Environment Agency baselines

C3. The Environment Agency has a streamlined pay structure across all of the candidate regimes (see Table C3). The exception is the RSR regime which, due to specialist knowledge, typically commands greater rates of pay. This was reflected by assuming a 10 per cent higher on-cost for this regime (see Table C4).

Table C3. Environment Agency direct staff costs

	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Senior Manager
Annual	£24,645	£29,085	£36,921	£47,680	£65,223	£75,042	£92,000
Hourly	£21.35	£25.20	£31.98	£41.30	£56.50	£65.01	£79.70

Source: Environment Agency Finance Department 2007

Notes:

1. Environment Agency productivity time assumptions are for 156 productive days per year of 7.4 hours length.
2. 2006/7 wage rates used, including cost of line management support.
3. Includes on-costs (e.g. employer's National Insurance contributions and employer's pension contributions) but not cost of support staff activities.

Table C4. Environment Agency direct staff costs (nuclear and non-nuclear RSR)

	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Senior Manager
Annual	£26,541	£31,323	£39,761	£51,348	£70,240	£80,815	£99,077
Hourly	£22.99	£27.13	£34.44	£44.48	£60.85	£70.01	£85.83

Notes:

1. On-costs have assumed to be 10 per cent greater in these regimes to reflect the higher salaries of those working within the regime.
2. Environment Agency productivity time assumptions are for 156 productive days per year of 7.4 hours length.
3. 2006/7 wage rates used including cost of line management support.
4. Includes on-costs (e.g. employer's National Insurance contributions, employer's pension contributions) but not cost of support staff activities.

C4. Detailed assumptions were developed by Environment Agency representatives about the average mix of different grades of Environment Agency staff deployed for each type of permitting process. These are incorporated in the modelling done to support this IA.