

Title: Reforming the regulatory system for controlling small sewage discharges (SSDs) IA No: Defra1824 Lead department or agency: Department for the Environment, Food and Rural Affairs Other departments or agencies: Environment Agency	Impact Assessment (IA)		
	Date: 22/07/2014		
	Stage: Final		
	Source of intervention: Domestic		
	Type of measure: Secondary legislation		
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Summary: Intervention and Options			RPC Opinion: EANCB Validated

Cost of Preferred (or more likely) Option			
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Two-Out? Measure qualifies as
£34.6m	£3.1m	-£0.3m	Yes OUT

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

The Environmental Permitting Regulations 2010 set up a two-part system to regulate small sewage discharges (SSDs) from septic tanks and small sewage treatment plants. In sensitive areas (e.g. SSSIs, Special Areas of Conservation) environmental permits are required. In less sensitive areas (most of the country), systems must be registered and comply with conditions in lieu of a permit. Registration and two other requirements impose unnecessary administrative burdens on rural households and businesses and have proved unworkable. A simpler regulatory framework to control and prevent pollution from small sewage discharges is needed.

What are the policy objectives and the intended effects?

We propose to remove unnecessary burdens on owners of septic tanks and small sewage treatment plants whilst ensuring that the environment and drinking water supplies continue to be protected from the impacts caused by poorly installed and maintained septic tanks and small sewage treatment plants. The changes would apply to England.

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

Options are limited due to Water Framework Directive requirements for prior regulatory controls to prevent and control pollution. Options therefore comprise Option 0 – the counterfactual case of not changing the regulations; Option 1 – deregulating, using general binding rules without registration to provide standard requirements and to establish a more risk-based determination of where permits will be required for SSDs. This is the preferred option. Continuing the interim suspension of registration (which was put in place while the policy was being reviewed) carries unacceptable legal risks and so is untenable longer term.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: 01/2017					
Does implementation go beyond minimum EU requirements?				No	
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.		Micro Yes	< 20 Yes	Small Yes	Medium Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)		Traded: N/A		Non-traded: N/A	

I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.

Signed by the responsible Minister:

Dan Rogerson

Date:

23.10.2014

Summary: Analysis & Evidence

Policy Option 1

Description: Removing regulatory requirements and streamlining permitting

FULL ECONOMIC ASSESSMENT

Price Base Year 2014	PV Base Year 2014	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: 19.9	High: 49.4	Best Estimate: 34.6

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.0	-2.4	-19.9
High	0.0	-5.9	-49.4
Best Estimate	0.0	-4.2	-34.6

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

- Cost savings (shown as negative costs) as people are no longer required to register their SSDs. A one-off saving per SSD of ~£15, affecting ~25,000 - 65,000 businesses giving an annual saving of -43k to -£104k (Best Estimate -£74k), and ~364,000 - 910,000 households giving an annual saving of -£436k to -£1,049k (Best estimate -£743k).
- Cost savings as people are no longer required to keep records of £6.50 per year per SSD giving annual savings to businesses of -£159k to -£418k (Best Estimate -£289k), and for households -£1,606k to -£4,224k (Best estimate -£2,915k).
- Cost savings of -£7,500 for business and -£76k for households as fewer permits required.

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

Transitional Environment Agency administrative costs of communicating changes to regulations and establishing a more risk-based approach to permitting.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	0.0	0.0	0.0
High	0.0	0.0	0.0
Best Estimate	0.0	0.0	0.0

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

The monetised benefits are cost savings, shown above as negative costs.

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

Benefits to the environment and public health from maintaining control of point source pollution from SSDs continue under this option (no change from the baseline Option 0). Savings to the Environment Agency from issuing fewer permits and from no longer needing to maintain a public register or process notifications when discharges cease.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

Risks include a failure to effectively communicate the Option to the ~1 million septic tank and small sewage treatment plant owners so they are unaware of their responsibilities to maintain their systems.

Risk that removing the requirement to register will mean losing an important source of data on the location of small sewage discharges. This is mitigated through information being derived through alternative sources (e.g. water companies).

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: -0.3	Benefits: 0.0	Net: 0.3	Yes	OUT

Evidence Base (for summary sheets)

1. Problem under consideration and rationale for intervention

It is essential to have a clean and healthy water environment and to protect people's health. This includes preventing contamination of drinking water supplies and pollution of the environment from septic tanks and small sewage treatment plants that make small sewage discharges.

Septic tanks and small sewage treatment plants are waste water systems, used where properties are not connected to the mains sewerage network. They use naturally occurring biological processes to break down sewage and discharge a less polluting effluent. Well maintained systems that are operating as intended present very little risk. However poorly installed or maintained systems can cause pollution or contaminate drinking water sources.

The EU Water Framework Directive includes a requirement for prior regulatory controls to prevent and control pollution in general. The Environmental Permitting (England and Wales) Regulations 2010 (EPR) implements this requirement. In regard to small sewage discharges (SSDs) from septic tanks and small sewage treatment plants, the EPR introduced a two part system. In sensitive areas¹ environmental permits are required for SSDs. In less sensitive areas (most of the country), SSDs must be registered and comply with conditions in lieu of a permit. The registration, record-keeping and notification requirements of EPR impose unnecessary administrative burdens on rural households and businesses and have proved unworkable. A simpler regulatory framework to control and prevent pollution from small sewage discharges is needed instead.

2. Policy objective

We propose to remove unnecessary burdens on owners of septic tanks and small sewage treatment plants whilst ensuring that the environment and drinking water supplies continue to be protected from the impacts caused by poorly installed and maintained septic tanks and small sewage treatment plants. The changes would apply to England.

3. Description of options considered (including do nothing)

The preferred option proposes to:

- Simplify existing regulation within less sensitive areas (most of the country) by removing requirements to register, keep records of maintenance and notify when a discharge ceases.
- Keep the key requirements for preventing pollution which would be known as general binding rules².
- Move to a risk-based approach to permitting in sensitive areas by reducing the number of sensitive areas³ where people will be required to have a permit for their small sewage discharge.

The aim of this approach is to remove burdens from households and businesses with small sewage discharges, whilst retaining the required level of protection for the environment.

¹ On February 2014 the list of designated sensitive areas comprised Groundwater Source Protection Zone 1s (SPZ1), Special Areas of Conservation, Special Protection Areas, Ramsar sites, Sites of Special Scientific Interest (SSSIs) designated for biological and/or geological reasons, designated bathing waters, shellfish protected waters, local wildlife sites, sites where protected species are located, protected habitats, national nature reserves, local nature reserves, ancient woodlands, and scheduled monuments.

² General binding rules are standard legal requirements that would apply in England. These rules would set the conditions which must be met for discharges to be deemed to be small sewage discharges, and therefore exempt from needing an environmental permit.

³ Proposals would remove scheduled monuments, geological SSSIs, national nature reserves and ancient woodlands from the list of designated sensitive areas. Local nature reserves, local wildlife sites, protected species and protected habitat sites would be partially removed.

It has been designed to:

- Deliver a proportionate regulatory approach for households and businesses.
- Deliver the same benefits to protect public health and to prevent and reduce the number of pollution incidents from small sewage discharges as, Option 0, the counterfactual.
- Meet EU obligations under the Water Framework Directive (2000/60/EC), the Groundwater Directive (2006/118/EC) and the Drinking Water Directive (98/83/EC).

The “do nothing” baseline is to leave the 2010 regulations in place and enforced. This regime comprises (a) permitting in existing sensitive areas and (b) for other areas, a registration scheme with conditions to be met in order to be exempt from having an environmental permit (in regulatory terms this is known as a registerable exemption) – Option 0. In 2011 Ministers asked for the policy to be reviewed and for less burdensome proposals to be developed whilst keeping the necessary measures to prevent and control pollution. In the interim, Ministers asked the Environment Agency not to enforce registration. This temporary position is untenable in the longer term as it carries unacceptable legal risks.

The long-list of options

Eight options were initially identified giving different levels of regulatory control. Ordered by the level of control from lowest to highest they were:

- a) General binding rules plus voluntary or incentivised registration. No permitting
- b) Registration by businesses plus general binding rules. No permitting
- c) Registration of all septic tanks and sewage treatment plants. No permitting
- d) Permitting only in sensitive areas
- e) Permitting in sensitive areas, plus general binding rules elsewhere; (i.e. existing requirements to control and prevent pollution become known as general binding rules) (Option 1 – the preferred option)
- f) Permitting in sensitive areas, elsewhere registration plus conditions – registration by water companies and waste services companies
- g) Permitting in sensitive areas, elsewhere registration plus conditions – registration by owners (Option 0 – the counterfactual)
- h) Permitting all sewage treatment plants

Options a-d in the list above do not give sufficient control of pollution to protect Drinking water supplies and the environment. Options f-h are not deregulatory and do not reduce burdens but do provide sufficient environmental control. The preferred option (e) in the list above (Option 1 elsewhere in this impact assessment), reduces burdens whilst still keeping the necessary controls to prevent pollution (in regulatory terms it is known as non-registerable exemption). It can be achieved with minimal legislative change.

4. Monetised and non-monetised costs and benefits of each option (including administrative burden)

The proposals are deregulatory and subject to the fast-track approval. Overall total business + households gives a net present value of ~£34.6m over 10 years using a discount rate of 3.5%. The resulting cost savings for households and businesses are shown as negative costs in this document. It is expected that the savings to business will mainly fall on SMEs although medium and large businesses may be in scope if they own a septic tank or small sewage treatment plant which makes a small sewage discharge. Businesses are estimated to be responsible for 9% of

all small sewage discharges. A positive net present value to business of ~£3.12m is estimated under Option 1 through costs avoided compared to Option 0 the counterfactual. Calculations of the savings (negative costs) to business for OITO purposes are set out in Section 7 below.

Monetised benefits of Option 1 compared to Option 0, are expected to save businesses ~£372,000 per year. This translates into a net present value (NPV) of ~£3.12 million over 10 years using a discount rate of 3.5%. It comprises:

- a) Cost savings from businesses no longer being required to register their SSD. This is calculated as a one-off saving per business of ~£15, affecting between ~25,000 & ~65,000 businesses giving an annual saving of -£43k to -£104k (Best estimate -£74k).
- b) Cost savings from businesses no longer being required to keep records This is estimated to be an annual saving of £6.50 per year per business with a SSD giving an annual saving of -£159k to -£418k (Best estimate -£289k).
- c) Cost savings compared to the counterfactual due to a proportion of the sensitive areas being de-designated and therefore not requiring a permit. 60 fewer new business SSDs requiring permits each year (one-off permit cost of £125) giving a saving of -£7,500. We have not included the administrative time savings to those businesses who no longer need to apply for the permit. Including these savings would result in a modest increase to the savings.

Savings to households (and other owners) are calculated on the same basis. The benefits to households and other non-business SSD owners, (who make up ~91% of all SSDs) from reduced burdens and simpler regulatory compliance are estimated to have a value of ~£3.8m per year and comprise:

- a) Households no longer being required to register their SSD. This is calculated as a one-off saving per household of ~£15, affecting between ~346,000 & ~910,000 households giving an annual saving of -£436k to -£1,049k (Best estimate -£743k).
- b) Cost savings from households no longer being required to keep records This is estimated to be an annual saving of £6.50 per year per household with a SSD giving an annual saving of -£1,606k to -£4,224k (Best estimate -£2,915k).
- c) Cost savings compared to the counterfactual due to a proportion of the sensitive areas being de-designated and therefore not requiring a permit. 749 fewer new household SSDs requiring permits each year (one-off permit cost of £125) giving a saving compared to the counterfactual of -£76k.

Non-monetised cost of Option 1 compared to the counterfactual:

- Transitional Environment Agency administrative costs of communicating changes to regulations and establishing a more risk-based approach to permitting.
- Transitional costs to business of understanding the changes to regulations.

Non-monetised savings/benefits:

- Benefits to the environment and public health from maintaining control of point source pollution from septic tanks and small sewage treatment plants remain unchanged under Option 1 compared to Option 0.
- Administrative savings to the Environment Agency from issuing fewer permits.
- Administrative savings to the Environment Agency from no longer needing to maintain a public register or process notifications where discharges cease.

5. Rationale and evidence that justify the level of analysis used in the IA (proportionality approach)

The limiting factor in obtaining precision in the calculation of the estimated annual net cost to business is the uncertainty over the number of small sewage discharges in England. Large variations in estimates from different sources (EA view was ~400,000 whereas CLA and waste

water service industry representatives' view was ~1,000,000). We use these estimates as end-members of a range. The large range means that a significantly greater level of precision on other inputs into the calculations would not be proportionate.

6. Risks and assumptions

Risks of Option 1 include:

- Failure to effectively communicate the reforms to the ~1 million septic tank and small sewage treatment plant owners leaving them unaware of their responsibilities to maintain their systems.
- Removal of the requirement to register will lose a source of data on the location of small sewage discharges. This is mitigated through information being derived through alternative sources (e.g. water companies).

The risks to the environment and public health are limited and do not change (i.e. they are the same for both options). The preferred Option 1 does not increase risks to the environment and public health. The option does not change the enforcement approach that the Environment Agency takes to deal with pollution incidents. The Environment Agency will continue to provide appropriate advice and information. New information collated (from water companies) on the location of small sewage discharges as part of the implementation of the option is likely to improve the risk-based approach to controlling pollution.

Transitional legal risks of infraction exist while enforcement of the registration system is suspended pending new arrangements.

Risks of not implementing Option 1:

Retaining the registration system and record keeping requirements risks high-profile public criticism similar to that seen in 2011 due to the burdens placed on households and businesses with small sewage discharges. The 2011 criticism initiated the policy review and reform process culminating in the preferred policy proposal set out in this impact assessment (Option 1).

Enforceability of the registration for ~400k to ~1 million septic tank and small sewage treatment plant owners requires a significant level of the regulator's resources to achieve a reasonable rate of compliance which would be disproportionate to the benefit of that enforcement activity.

Principal Assumptions used to calculate direct costs to business

- It is assumed that there are between 400,000 and 1,000,000 small sewage discharges in England with the best-estimate of 700,000. Source: Environment Agency, CLA and waste water services industry estimates.
- It is assumed that there are ~6,000 new small sewage discharges each year, a figure extrapolated from numbers of new permit applications each year.
- Businesses are assumed to be responsible for 9% of all small sewage discharges. This estimate is derived from examination of a sample of permit applications, and from analysis of registrations that have been made since 2010. Therefore the estimated number of business SSDs is between 36,000 and 90,000 with a best estimate of 63,000.
- Households (and other owners) are estimated to be responsible for 91% of all small sewage discharges. The estimated number of households is between 364,000 and 910,000 with a best estimate of 637,000.

Further assumptions and data sources are given in footnotes to tables in Section 7.

7. Direct costs and benefits to business calculations (following OITO methodology)

Table 1 below contains the steps through the calculations of the costs to business of the counterfactual case (Option 0: leaving regulations in place) and the proposal to remove regulatory requirements and streamline permitting (Option 1). The table shows figures for the best-estimate scenario of 63,000 business SSDs in the country. Costs to business were also calculated for two other scenarios – low (36,000) and high (90,000) numbers of business SSDs in England. Table 2 gives the Net Present Value for businesses of each option for the low, high and best estimate scenarios, disaggregated by the three policy strands that have been monetised within each option.

Option 1 (preferred option) counts as an OUT for One-in-Two-Out purposes as it is deregulatory, removing regulations requiring businesses (and households) to register their small sewage discharge and keep records, and is removing the requirement to obtain a permit from some businesses each year. The preferred option has a net present value to business of ~£3.1m and an EANCB of £-0.3m (i.e. a saving) compared to the counterfactual case (Option 0).

Table 1: Calculations of the direct costs to business**1 Basic Inputs**

Description of input	Input
Total number of SSDs in England	700,000 [1]
SSDs discharging to ground in SPZ1 in England	8000 [2]
Number of new SSDs in England each year	6000 [3]
%age of new SSDs discharging to water	48% [4]
%age of new SSDs discharging to ground	52%
%age land SPZ1 & therefore all discharges to g&w need permits	1.34% [5]
%age land requiring permits for new discharge to water (proposed sensitive areas)	18.42%
%age land requiring permits for new discharge to ground (proposed sensitive areas)	9.37%
%age land requiring permits for new discharge to water (current sensitive areas)	29.14%
%age land requiring permits for new discharge to ground (current sensitive areas)	20.85%

2 Estimating numbers of existing and new SSDs, split by location of discharge (SPZ1s, other designated areas, non-sensitive areas)

Location of discharge (all SSDs)	# Existing SSDs	# New SSDs pa
SPZ1	8,000	42
Other designated sites as they currently stand	173,804	1,490
Other designated sites after reforms are implemented	95,998	823
Non-sensitive sites and they currently stand	518,196	4,468
Non-sensitive sites after reforms are implemented	596,002	5,135

3 Estimating numbers of SSDs just for businesses

%age of SSDs owned by business	9% [6]
# of business SSDs where registration already happened	1353 [7]

Location of discharge (business SSDs)	# Existing SSDs	# New SSDs pa
SPZ1	720	4
Other designated sites as they currently stand	15,642	134
Other designated sites after reforms are implemented [8]	8,640	74
Non-sensitive sites as they currently stand	46,638	402
Non-sensitive sites after reforms are implemented	53,640	462

4 Identifying the change in numbers of SSDs in different locations under the proposed reforms compared to the counterfactual

Location of discharge (business SSDs)	Counterfactual	Proposals	Difference
# Existing unregistered business SSDs in non-sensitive areas [9]	45,285	0	-45,285 [9]
# New business SSDs per year in non-sensitive areas	402	0	-402
# Existing business SSDs requiring permits (SPZs only)	720	720	0 [10]
# New business SSDs per year requiring permits	138	78	-60

5 Calculating costs (actually savings) to businesses - Input data and assumptions

Description of input	Input
2012 Median gross hourly earnings (£)	£12.76 [11]
Assumed time for registration and information gathering (hours)	1.17 [12]
Assumed time per year for record keeping (hours)	0.5 [13]
Cost of a permit (£)	£125 [14]
Time period (years)	10 [15]
Percentage new business SSDs in non-sensitive areas per year	0.9%
Assumethat only half are actually net new business SSDs	0.4%

	Counterfactual	Proposals	Difference
Annual cost to business of registration	£73,610	£0	-73,610 [16]
Annual costs to business from record keeping	£288,916	£0	-288,916 [17]
Annual costs to business of permitting in designated areas where permits are required	£17,230	£9,727	-7,503

Footnotes

- We present a range of values from 400k to 1m with a best-estimate of 700,000. Range is based on EA expert opinion and views of industry and CLA.
- From EA Mapping of SPZ1s and other assumptions/estimates documented separately.
- Figure based on the number of new permit applications received by EA.
- Ratio is derived from data on registrations for new discharges.
- The source for this figure and the other percentage of land estimates are from EA GIS analysis of land use. They assume that there is an even distribution of SSDs between non-designated and designated areas.
- EA registration data
- EA registration data
- Sites proposed to be removed from requiring permits for new SSDs are: Local Nature Reserves, National Nature Reserves, geological SSSIs, local wildlife sites, protected species, protected habitats, ancient woodlands, scheduled ancient monuments and national parks.
- Savings cannot be counted from those businesses that already registered.
- For existing SSDs in sensitive areas, permits are only required for new discharges except in SPZ1, where new and existing SSDs require permits.
- From ONS Annual Survey of Hours and Earnings 2012 Provisional Results: April 2012 Median gross hourly earnings excluding overtime (Full-time men & women). <http://www.ons.gov.uk/ons/rel/ashe/annual-survey-of-hours-and-earnings/2012-provisional-results/stb-ashe-statistical-bulletin-2012.html#tab-Hourly-earnings-excluding-overtime-> And following UK Standard Cost Model methodology (<http://www.berr.gov.uk/files/file44503.pdf>)
- EA estimate of the time taken to both collect necessary information for registration and fill forms.
- EA estimate of the time taken to keep records of maintenance for septic tanks or small sewage treatment plants.
- Source: Environment Agency
- Assumed default value of 10 years, as a reasonable time over which to measure costs to business.
- Assume that under counterfactual, 1/10 of businesses that were not registered, do register each year for 10 years. So savings from removing registration accrue steadily over 10
- This gives the figure for Year 1. However we assume that each year the number of business SSDs increases by 0.8% (the %age of new business SSDs in non-sensitive areas per year, but halved as there will be some SSDs decommissioned each year. So that the savings for annual record keeping increase over time.

Table 2: Summary of Net Present Value to business for each component of the calculations for Option 1

Business Net Present Value (£m)	High	Low	Best Estimate
Savings to business of registration	0.86	0.36	0.61
Savings to business from record keeping	3.53	1.37	2.45
Savings to business in designated areas where permits are required	0.06	0.06	0.06
Total Savings (£m)	4.45	1.79	3.12

8. Summary and preferred option with description of implementation plan

The single preferred option (Option 1) presented in this impact assessment aims to provide a more proportionate, lighter touch regulatory framework for the control of small sewage discharges (SSDs) than Option 0 (the counterfactual 'do nothing' case).

In non-sensitive areas (most of the country) the deregulatory proposals would remove unnecessary registration, record keeping and notification, and instead introduce a proportionate system of general binding rules to ensure that septic tanks and small sewage treatment plants are properly installed and maintained. Additionally the proposals would remove some types of sensitive areas (e.g. scheduled monuments) from the list of those where permits would be required for an SSD while maintaining controls on pollution and hence continuing to protect public health and the environment.

Savings to business from reducing burdens are ~£372,000 per year, giving a net present value for the proposal over 10 years of £3m. Savings to households from reducing burdens are ~£3.7m per year. The total net present value over 10 years is ~£35.8m.

Implementation

A negative statutory instrument is planned to be laid in autumn 2014 to come into force in January 2015 amending the legal framework. Before the new regulations come into force, appropriate communication will take place with householders, businesses and others who are responsible for small sewage discharges to advise of the changes in law and their responsibilities for maintaining their systems. This communication will be carried out by Defra and the Environment Agency working in partnership with e.g. catchment partnerships, environmental organisations, water and waste services companies and local authorities.

The Environment Agency will undertake proportionate enforcement. Compliance for most small sewage discharge owners will involve maintaining their treatment plant in line with manufacturer's recommendations so that it does not cause pollution. The vast majority of non-compliance found will be addressed using advice and guidance, though where this fails further enforcement action will be taken as is currently the case.

Monitoring will be carried out through routine catchment walkovers and investigations where there is evidence of pollution from sewage. The Environment Agency will not carry out routine visits of small sewage discharge owners unless there is evidence of a problem.