

# Regulatory Impact Assessment for the Control of Pollution (Oil Storage) Regulations (Wales) 2015

## Draft Consultation Stage RIA – April 2015

### 1. Background

The Water Framework Directive (WFD) requires that for diffuse sources liable to cause pollution, measures are put in place to prevent or control the input of pollutants. It also requires that all surface waters and groundwaters attain 'good status'.

The WFD is implemented in Wales through River Basin Management Plans which were published on 21 December 2009. Programmes of measures have been developed to ensure that the objectives of the WFD are met and included in these is a commitment to make these Regulations.

The proposed Regulations for above ground oil storage facilities will contribute to the implementation of the WFD by complimenting and enhancing existing water pollution controls in Wales. They should ensure that, in the future, contamination of both surface waters and groundwater by oil is prevented or minimised.

The majority of oil-related pollution incidents arise as a result of poor storage facilities – for example unbunded tanks, leaking tanks and pipes, overfilling, faulty valves - together with vandalism and poor management and construction practices. A key requirement of the Regulations will therefore be for the storage container to have a secondary containment system (a bund, which is an outer wall or enclosure designed to contain the contents of an inner tank, or, a drip tray) to ensure that any leaking or spilt oil is contained and does not enter the aquatic environment. Similar measures are already in place in England, Scotland and Northern Ireland.

### 2. Policy Objective

The objective of the proposed regulations is to reduce and prevent the number of oil-related water pollution incidents in Wales. The proposals would mainly affect:

- domestic premises with new or replacement above ground oil storage facilities (with capacity less than 3,500 litres),
- commercial/industrial/institutional premises with new and existing above ground oil storage facilities, and;
- agricultural premises with new and existing above ground storage facilities (with capacity less than 1,500 litres) and ground storage facilities installed before 1991.

The proposals would affect all such existing unbunded and inadequately banded tanks (assumed to be approximately 60%<sup>1</sup> of the overall existing stock, in line with estimates in England and Scotland), and any similar new stock. It should reduce the

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<sup>1</sup> Based on 40% of existing storage being unbanded, and 33% of the banded storage being inadequately banded.

number of oil-related oil pollution incidents, as evidence<sup>2</sup> suggests that unbunded and inadequately banded existing stock is relatively more likely to have a pollution incident than properly banded stock.

### **3. Rationale for Intervention**

Oil-related water pollution incidents generate negative ‘externalities’, i.e. effects on third parties arising from the consumption of oil, for which appropriate compensation is not always paid. Externalities from pollution arise in the form of harmful impacts on the environment that result in a relatively higher cost to society than it costs the polluter privately.

The environmental damage caused as a result of a pollution incident due to the release of oil can be significant and expensive to remedy – the costs of which are rarely considered by the polluter at a private level.

Oil spills are objectionable aesthetically, but more seriously, place all aquatic organisms at risk. Oil is considered toxic to animal and invertebrate life. It forms a film on the surface of waterways, which prevents or greatly reduces the rate at which atmospheric oxygen can be absorbed into water. This causes distress and even death to aquatic life.

Oil may adhere to the feathers and coats of birds and animals reducing their natural waterproofing and grooming can then have toxic effects. It can result in the contamination of drinking water supplies and water used for irrigation, stock watering and many industrial purposes, making it unfit for use. Oil can taint fish flesh making it inedible causing severe implications for fish farming or game angling. The recreational use of water can also be adversely affected by contamination with oil.

These impacts cannot easily be quantified but are clearly severely detrimental to the environment and at a wider social level. Since there are, on average, around 252 reported incidents occurring annually in Wales<sup>3</sup>, it is therefore considered necessary to introduce regulations to reduce and prevent the number of oil-related water pollution incidents in Wales.

### **4. Options under Consideration**

Only one policy option is proposed in addition to the ‘do nothing’ option. This is because it is considered that other potential options – such as economic incentives (e.g. grants and tax breaks) or a voluntary scheme – would not be feasible in achieving the policy objectives. A ‘voluntary’ scheme, whereby oil storage owners would be encouraged to comply with a standard for oil storage on a voluntary basis, is already in existence to some extent, and this has not proven effective in reducing the number of oil-related water pollution incidents in Wales.

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<sup>2</sup> Source: Environment Agency

<sup>3</sup> Average over the period 2005 to 2014. Source: NRW.

## Option 1 – Do Nothing

This option represents the baseline, or current situation regarding oil storage in Wales. Natural Resources Wales has existing powers to issue notices where it considers that oil is likely to enter into waterways and groundwater, causing environmental pollution. However, the cost of undertaking site inspections, issuing improvement notices, contesting appeals and following up on remedial work is considered to be an excessive and ineffective use of resources. It is anticipated that regulating to require oil storage containers to meet a required standard would be a more effective use of resources, and would contribute to prevention of incidents.

Under the baseline scenario, pollution incidents are assumed to continue at the current level, except where businesses take voluntary action to improve the standards of their oil storage facilities.

The total number of oil-related water pollution incidents in Wales have remained reasonably stable over the period 2005 to 2014, as indicated in the table below. The most frequent polluting oil types are diesel (25.3%) and gas and fuel oils (16.4%)<sup>4</sup>. The reported incidents occurred mainly as a result of spills, leaks, inadequate facilities and irresponsible disposal.

**Table 1 – Annual Number of Oil-Related Water Pollution Incidents in Wales, 2005 to 2014**

Year	Number of incidents	Year	Number of incidents
2005	313	2011	246
2006	281	2012	248
2007	272	2013	199
2008	217	2014*	160
2009	299	<b>Annual Average</b>	<b>252</b>
2010	287		

\*up to 24/11/2014

Source: NRW

The 'do nothing' option would involve carrying on with 'business as usual' and not introducing regulations to try and reduce the number of pollution incidents arising. This means that the average annual number of pollution incidents is likely to remain stable over the appraisal period, potentially leading to substantial environmental damage.

Although the average number of incidents per annum is relatively low in comparison with the average annual number of incidents in England (approx. 5,000) and Scotland (over 500), the environmental damage arising as a result of these incidents is still considered to be substantial<sup>5</sup>. The average cost associated with clean-up and remedial measures has been estimated to be in the region of £23,000 to £57,000 per

<sup>4</sup> NRW

<sup>5</sup> Number of incidents in England and Scotland obtained from England and Scotland Oil Storage Regulatory Impact Assessments.

incident, with a mid point of £40,000, for a typical business with tank sizes of between 2,500 and 5,000 litres<sup>6</sup>. It assumed that costs to agriculture and domestic properties are at the same level, for the purpose of analysis. NRW also incur costs per incident, with recoverable costs per incident attended estimated to be £415 on average<sup>7</sup>.

## **Option 2 – Regulate**

This option is considered to be the most effective way of controlling the number of oil-related water pollution incidents and ensuring equity and fairness between operators, as far as possible. In addition, there are a number of benefits to the operators of affected sites (although there would also be costs associated with meeting the requirements of the regulations).

It is intended that the proposed regulations will create a 'level playing field' for above ground oil storage facilities. They will set statutory minimum standards to control such facilities in the commercial, industrial, institutional, agricultural and domestic sectors.

It is anticipated that the cost of meeting the minimum standards proposed by the regulations may be proportionally greater for operators of small tanks, such as small businesses and voluntary groups. The proposed Regulations may also affect the market for tanks and bunds and possibly encourage the production of less expensive plastic integrally bunded tanks at the smaller end of the market. This would be of benefit to small businesses and voluntary groups, since the costs of installation are relatively lower. This would have some effect on the market share of tank manufacturers and firms installing brick or concrete bunds, whose markets may shrink unless they can diversify.

The regulations proposed under Option 2 make provision for transitional cases coming into operation in three stages:

- new storage facilities will have to comply within six months of the regulations coming into operation;
- existing higher risk storage facilities, defined as facilities which are located within 10 metres from a waterway or 50 metres from a well, spring or borehole, will have to comply within two years of the Regulations coming into operation; and
- remaining existing storage facilities will have to comply within four years of the Regulations coming into operation.

In addition, where NRW considers that there is a risk of pollution to a waterway or water contained in any underground strata, it will have the power to serve a notice on that person having custody or control of the above ground oil storage container in order to minimise the risks in transitional cases. Provision is also made for the right to

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<sup>6</sup> These costs are estimated based on figures provided in the Oil Storage Regulatory Impact Assessments for Northern Ireland and England. Figures have been converted into 2014 prices using GDP deflators.

<sup>7</sup> This cost has been calculated using data provided by NRW on the number of oil spillage incidents and total recoverable costs from attended oil spillage incidents from 2005 to 2014.

appeal against a notice served by NRW in transitional cases and for penalties to be applied when an offence has been committed.

In the first six years of the implementation of the Oil Storage Regulations in England there was a 41% reduction in reported oil and fuel incidents. However, the proposed regulations for Wales will have a wider scope than the English regulations. It is therefore estimated that the proposed regulations could contribute to a reduction in the number of reported incidents in Wales by approximately 33% in the first five years, rising to a 50% overall reduction over the 10-year appraisal period. This would equate to an estimated reduction in reported incidents from an average of 252 per year in to around 169 per year after 5 years and around 126 per year after 10 years.

## **5. Costs and Benefits of the Options**

It is estimated that there are approximately 173,000 households with oil storage tanks in Wales, with a further 17,300 in the commercial/industrial/institutional sector, and 17,300 in the agricultural sector.

Estimates for the number of oil storage tanks in Wales are based on information provided by oil storage tank suppliers and the proportion of 'tank condition' site improvement reports in each sector in Wales in December 2013 (83.3% in the domestic sector, 8.3% in the commercial/industrial/institutional sector, and 8.3% in the agricultural sector).

Oil Storage tanks are assumed to have a lifetime of 25 years. Assuming that the age of Oil Storage tanks is uniformly distributed, this would mean 4% ( $=1/25$ ) of existing oil storage tanks would be replaced with a new oil storage tank each year.

This would mean an estimated 6,920 domestic, 690 commercial/industrial/institutional, and 690 agricultural oil storage tanks are purchased each year.

Tank manufacturers and firms fitting, installing and maintaining tanks and bunds are expected to be affected indirectly. Suppliers will need to meet the increased demand for tanks, pipework and bunds to the standard required in the regulations within the timescale for compliance. Thereafter, annual sales could be expected to stabilise at a lower level. There are only a few suppliers of oil equipment in Wales.

### **5.1 Costs**

The costs of Option 1 will be minimal for business. The costs for Option 2 will vary according to the total oil storage capacity at each site. For convenience, the cost of purchasing or upgrading an individual tank at different tank capacities has been estimated. It is considered that small businesses and those with small oil storage facilities should anticipate costs at the lower end of the range.

### **5.2 Non-recurring costs (one-off costs)**

The main compliance cost to firms is the one-off cost of upgrading an existing tank or installing a new tank to the required design specification, and in particular providing a bund. The costs will vary depending on tank capacity, which can be 600 litres at the lower end and 150,000 litres at the upper end. Most commercial/industrial/institutional tanks affected by the proposed regulations will have a capacity of about 2,500-5,000 litres, and most agricultural tanks will have capacity of about 1,500-3,000 litres. We consider that these will be typical businesses. This range is used to estimate costs and benefits. Small businesses are likely to have a tank capacity in the range of 1,000-2,500 litres. As containers under 200 litres (a standard oil drum) will be exempt, and tanks over 3,500 litres in the domestic sector are already covered under Building Regulations, it is assumed that most tanks affected in the domestic sector will have a capacity of about 1000 litres.

These costs and benefits are broad estimates and are indicative only, since it has not been possible to calculate these using a robust methodology at this stage. However, they should allow a rough comparison of costs and benefits which can be used to gauge the merits of the proposed Regulations. It should also be noted that the costs and benefits are those over and above the status quo.

#### Costs of installed new bunded tanks

It is assumed that new integrally bunded above ground tanks are purchased. There are no additional labour costs beyond the cost that would have been incurred under the 'business as usual' scenario. There may be marginal additional costs for pipework and mobile tank requirements, but we have been unable to cost these. It is estimated that the typical business is likely to face additional costs for installing new bunded tanks of £528 – £798<sup>8</sup>, and small businesses are likely to face additional costs of £376 – £528<sup>6</sup>. Domestic properties are assumed to face costs of £376. The full range of costs for different tank capacities is below:

Tank capacity (litres)	1,000 and below	1,500	2,500	5,000	30,000	50,000	150,000
Extra cost of bund	£376	£470	£528	£798	£2,024	£2,936	£10,089

(2014 prices)

#### Costs of Upgrading Existing tanks

The additional costs of upgrading existing above ground tanks will vary considerably depending on the amount of work that is needed to bring the facilities up to the standard by the proposals and the age of unbunded tanks. Tanks may require remedial work, and where new bund construction is called for it may be cheaper to completely replace with a new integrally bunded tank.

The typical business is likely to face additional costs in year 4 for upgrading existing tanks of £368+ for remedial work and £1,056+ for complete replacement<sup>6</sup>. Small

<sup>8</sup> These costs are estimated by taking the average cost presented in the England and Northern Ireland RIAs, converted to 2014 prices using GDP deflators.

businesses are likely to face additional costs of £368+ and £885+, and domestic properties are assumed to expect costs of £255 and £723, respectively<sup>6</sup>. The full range of costs for different tank capacities is given below, assuming a ‘worst case’ scenario.

Tank Capacity (litres)	1,000 and below	1,500	2,500	5,000	30,000	50,000	150,000
Cost for tank where bund requires some remedial work	£255	£368	£368	£368	£595	£595	£709
Marginal cost for tank requiring complete replacement*	£723	£885	£1,056	£1,619	£13,492	£17,460	£31,339

\*Note: this cost is dependent on the age of the tank after 4 years when the proposed regulations come into force/operation. It provides an example of the most expensive scenario, a 4-year old tank which –assuming an average lifespan of 25 years – would have another 21 years of use.

(2014 prices)

### 5.3 Recurring Costs

The main recurring cost is likely to be routine maintenance to ensure the reasonable standards proposed in the Regulations are met at all times, through an annual inspection and service (and for open bunds, removal of collected rainwater).

Maintenance proposals/requirements would not be onerous as storage tanks have few mechanical features and brick or concrete bund construction is very durable. (Plastic) integrally bunded tanks have minimal maintenance requirements (and don't need to have rainwater removed). These costs have not been included as routine maintenance could be incurred whether or not the proposals are introduced.

There are likely to be recurring costs for the minority of businesses in the supplier market. For many firms this is likely to be increased demand for products to meet the timing proposals in the Regulations, followed by some reduction in sales and thus lower profits in the interim years until new tanks are purchased. However, the cyclical nature of the loss of profits may be offset to some extent by the number of existing tanks that currently meet the proposals in the Regulations and the timing of any maintenance required. We have not been able to quantify these costs.

### 5.4 Total Compliance Costs

We estimate that the total recurring and non-recurring compliance costs for the oil consumers affected by the proposed regulations in the domestic, industrial/commercial/institutional and agricultural sectors would be as set out as below:

#### New Tanks

The number of new tanks purchased per annum is estimated to be 4% of the existing number of tanks, per annum (as explained above). Therefore, it is estimated that 6,920 domestic, 692 commercial/industrial/institutional and 692 agricultural new tanks are purchased per annum.

However, in the domestic sector tanks over 3,500 litres are already covered by Building Regulations and containers under 200 litres would also be exempt from the Regulations. However, for the purposes of analysis it is assumed that all new domestic tanks would be covered by the new proposals. This is likely to overestimate the costs of new tanks in the domestic sector. It is also assumed that between 10-40% would be unbundled in absence of the regulations. Therefore, only 60-90% of new domestic tanks would be impacted by the regulations and face a new burden.

In the agricultural sector, tanks above a capacity of 1,500 litres that are installed after 1991 are already covered by existing regulations. It is also expected that most tanks in the agricultural sector have capacity of 1,500 to 3,000 litres. Therefore, it is assumed that there is no additional burden in the agricultural sector in terms of the purchase of new tanks.

In the commercial/industrial/institutional sector, it is assumed that some 60-90%<sup>9</sup> of new tanks purchased in the absence of regulations would have been unbundled anyway and would comply with our proposals. Therefore, the extra cost of the proposed regulations (mainly the bund) would be for those 10-40% of commercial/industrial/institutional tanks which otherwise would have been bought unbundled.

Taking this into account, the range of total recurring compliance costs for new tanks in all sectors in Wales is calculated as follows:

#### Minimum

Under our minimum cost estimate it is assumed that all commercial/industrial/institutional tanks that are bought are 2,500L tanks, and all domestic tanks are 1000L, for the purpose of analysis. It is also assumed that only 40% of domestic tanks covered by new regulations and 10% of industrial/commercial/institutional tanks covered by new regulations would otherwise be unbundled.

- Total cost to Domestic sector = 60% x 5,720 x £376 = **£1,563,000** per annum
- Total cost to Commercial/Industrial/institutional sector = 10% x ~572 x £528 = **£37,000** per annum

**Total cost = £1,599,000 per annum**

#### Maximum

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<sup>9</sup> This is based on figures provided in the England, Scotland and Northern Ireland Regulatory Impact Assessments



Under our maximum cost estimate it is assumed that all commercial/industrial/institutional tanks that are bought are 5,000L tanks, and all domestic tanks are 1000L, for the purposes of analysis. It is also assumed that 90% of domestic tanks and 40% of industrial/commercial/institutional tanks would otherwise be unbunded.

- Total cost to Domestic sector =  $90\% \times 5,720 \times \text{£}376 = \text{£}2,344,000$  per annum
- Total cost to Commercial/Industrial/institutional sector =  $40\% \times 572 \times \text{£}798 = \text{£}221,000$  per annum

**Total cost = £2,565,000 per annum**

### Central

Under our central cost estimate the same assumptions are made as in the minimum cost estimate, except it is expected that 90% of domestic tanks would otherwise be unbunded. It is also assumed that 10% of industrial/commercial/institutional tanks would otherwise be unbunded.

- Total cost to Domestic sector =  $90\% \times 5,720 \times \text{£}376 = \text{£}2,344,000$  per annum
- Total cost to Commercial/Industrial/institutional sector =  $10\% \times 520 \times \text{£}528 = \text{£}37,000$  per annum

**Total cost = £2,380,000 per annum**

Therefore we estimate a range of **£1,599,000 - £2,565,000** per annum for new tanks, with a central estimate of **£2,380,000** per annum.

### Upgrading Existing Tanks

As highlighted above, it is estimated that there are 207,700 existing tanks in Wales, 173,000 of which are in the domestic sector, 17,300 in the commercial/industrial/institutional sector, and 17,300 in the agricultural sector.

Assuming that an oil storage tank has a lifetime of 25 years, after which it is replaced, it is believed that only a very small proportion of existing agricultural tanks would have been installed before 1991. It is believed that these tanks installed before 1991 would be replaced with a banded tank regardless of the new proposals, and therefore the proposals would only be bringing costs forwards for these tanks, instead of creating new costs. It is also believed that the majority of agricultural tanks have capacity in the range 1,500-3,000 litres so would fall under existing regulations. For these reasons, we do not estimate an additional burden in the agricultural sector.

It is not proposed that there will be retrospective application for domestic tanks to upgrade existing tanks. Therefore, there is no additional burden in the domestic sector in terms of upgrading existing tanks.

There will be retrospective application for commercial/industrial/institutional tanks. It is also assumed that 60% of tanks are banded, with 33% of these banded tanks inadequately banded.

Overall, this is equal to 6,920 unbunded commercial/industrial/institutional tanks and 3,430 inadequately banded commercial/industrial/institutional tanks that require upgrading.

The total non-recurring costs, for existing tanks in Wales to comply with the proposals, is calculated as follows, assuming that all commercial/industrial/institutional tanks are upgraded in year 4:

Low and central estimate:

- Total cost of bunding in the commercial/industrial/institutional sector =  $40\% \times 17,300 \times \text{£}1056 = \text{£}7,308,000$
- Total cost of re-bunding in the commercial/industrial/institutional sector =  $33\% \times 60\% \times 17,300 \times \text{£}368 = \text{£}1,262,000$

Total cost =  $\text{£}8,571,000$

High estimate:

- Total cost of bunding in the commercial/industrial/institutional sector =  $40\% \times 17,300 \times \text{£}1619 = \text{£}11,207,000$
- Total cost of re-bunding in the commercial/industrial/institutional sector =  $33\% \times 60\% \times 17,300 \times \text{£}368 = \text{£}1,262,000$

Total cost =  $\text{£}12,470,000$

Therefore the one-off cost to the industrial, commercial and institutional sectors to update existing tanks are estimated to from  $\text{£}8,571,000$  to  $\text{£}12,470,000$  with a best estimate of  $\text{£}8,571,000$ .

A summary table of costs and benefits can be found below.

## 5.6 Identifying any Other Costs

The costs to the environment have been estimated for option 1. These figures become the benefits to the environment of regulating (option 2) by avoidance of clean-up costs.

It is possible that the oil consumer sector would pass on the costs of compliance with the proposed regulations to citizens/customers by increasing the prices of goods and services. However, many may simply absorb the additional costs and overall we estimate that the impact on inflation would be minimal.

There would also be costs to Government. It is expected that there will be set-up costs for NRW in terms of training staff and publicity of the regulations. These are likely to be small given that existing staff are familiar with the issues around oil tank

bunding and already enforce for the agricultural sector. It is assumed that there is a £5000 cost in year 1.

## **6. Benefits**

### Option 1 – do nothing or ‘business as usual’ scenario.

There are no benefits as sites would be uncontrolled and the risk of pollution would continue at current high levels, except to the extent that businesses take voluntary action.

### Option 2 – Regulate to reduce and prevent oil-related water pollution incidents.

The principal benefit of the proposed Regulations will be the reduction in the number of oil-related water pollution incidents in Wales. This will reduce the risk to wildlife and habitats and help to safeguard surface waters and groundwater thus protecting drinking water supplies. Additionally, the reduction of further pollution to land, surface waters and groundwater will reduce the costs of remediation of contaminated land in the future.

It is difficult to quantify the environmental benefits of introducing the proposed Regulations. The value placed on benefits in this Regulatory Impact Assessment only refer to the savings made in relation to a reduction in clean-up costs. Therefore, it should be noted that the environmental benefits of preserving wildlife and habitats and safeguarding surface waters have not been quantified. However, the main quantifiable benefits of this option stem from reducing the costs of remediating land and water i.e. lower clean up costs.

For a typical business with tank sizes of 2,500L to 5,000L it is assumed that benefits in avoided clean-up costs, reimbursement to NRW and replacing lost fuels are in the range of £23,000 - £57,000 per incident<sup>10</sup>. In addition, polluters may face prosecution and fines for incidents – however, these fines are not included as they would be a transfer costs.

Government (NRW) would also avoid the costs of having to attend pollution incidents. This would be in the range of £322 - £4,338 per incident, with an average of £417 per incident<sup>11</sup>.

Total quantifiable benefits for new and existing tanks, and saving to Government (NRW) are calculated as follows. We have assumed an average of 252 incidents in year 1 which is reduced by 33% after 5 years and 50% in 10 years. This is equivalent to a reduction of 83 incidents per year compared to the baseline by year 5, increasing to 126 by year 10, which continues up to year 15.

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<sup>10</sup> These costs are based on costs to Businesses in the Northern Ireland Regulatory Impact Assessment, which in turn were provided with assistance from Spill UK. They are converted into 2014 prices using GDP deflators.

<sup>11</sup> These costs are estimated using data received from NRW on number of oil pollution incidents, number of oil pollution incidents attended, and total recoverable costs.

Year	1	2	3	4	5	6	7	8	9	10-15
Incidents	252	231	211	190	169	160	152	143	135	126
Reduction in incidents	0	21	42	62	83	92	100	109	118	126
Business saving (low estimate)	£0k	£479k	£957k	£1,436k	£1,914k	£2,111k	£2,309k	£2,506k	£2,703k	£2,900k
Business Saving (central estimate)	£0k	£832k	£1,665k	£2,497k	£3,329k	£3,672k	£4,015k	£4,358k	£4,701k	£5,044k
Business saving (high estimate)	£0k	£1,186k	£2,372k	£3,558k	£4,744k	£5,233k	£5,721k	£6,210k	£6,699k	£7,188k
Saving (NRW) (low estimate)	£0k	£7k	£12k	£20k	£27k	£30k	£32k	£35k	£38k	£41k
Saving (NRW) (central estimate)	£0k	£9k	£17k	£26k	£35k	£38k	£42k	£45k	£49k	£53k
Saving (NRW) (high estimate)	£0k	£90k	£181k	£271k	£361k	£398k	£435k	£473k	£510k	£547k

Figures are rounded to the nearest £1000.

Therefore, total savings to business of reduction in clean-up are in the range of **£17.31m to £42.91m** with a central estimate of **£30.11m**, and total savings to Government (NRW) of reduction in clean-up are in the range of **£0.24m to £3.27m** with a central estimate of **£0.31m**.

## 7. Summary and Recommendation

Recurring costs for maintenance, such as an annual inspection and service, have not been included as they could be incurred whether or not the proposals are introduced.

Total compliance cost-benefits of Option 2 for businesses in the oil consumer market and for Government would be recurring for newly purchased tanks, assuming that the level of unbundled or inadequately bundled stock remained the same if the proposals were not introduced. The total non-recurring costs of the proposals to regulate existing stock at 'significant risk' within 2 years and remaining existing stock within 4 years are also estimated.

Estimated total costs (at 2014 prices) are likely to be in the range:

		Low	Central	High
Additional recurring costs of purchasing new tanks	Domestic	£23,439k	£35,159k	£35,159k
	Commercial/Industrial/institutional	£548k	£548k	£3,316k
	Agricultural	£0k	£0k	£0k
	<b>Total</b>	<b>£23,987k</b>	<b>£35,707k</b>	<b>£38,475k</b>
Additional one-off cost of worst case upgrade of existing tank by year 4	Domestic	£0k	£0k	£0k
	Commercial/Industrial/institutional	£8,571k	£8,571k	£12,470k
	Agricultural	£0k	£0k	£0k
	<b>Total</b>	<b>£8,571k</b>	<b>£8,571k</b>	<b>£12,470k</b>
Additional one-off training costs to government (NRW)		£5k	£5k	£5k
<b>Total Costs</b>		<b>£32,563k</b>	<b>£44,283k</b>	<b>£50,950k</b>

Expected Total Benefit of Reduction in Clean Up	Domestic, commercial/industrial/institutional, and agricultural	£32,773k	£56,997k	£81,221k
Costs avoided of attending pollution incidents	Government (NRW)	£459k	£594k	£6,182k
<b>Total Benefits</b>		<b>£33,232k</b>	<b>£57,591k</b>	<b>£87,403k</b>

(2014 prices)

In order to calculate the Net Present Value (NPV) of the proposal, we discount costs and benefits above over a 15-year appraisal period using a 3.5% discount rate. This gives discounted costs in the range £26,798,000 to £41,829,000 with a central estimate of £36,112,000, and discounted benefits of £25,004,000 to £65,761,000 with a central estimate of £43,331,000. This gives a Net Present Value (discounted benefits minus discounted costs) of -£16,825,000 to +£38,963,000 with a central estimate of +£7,220,000.

Note that if the number of oil related incidents was reduced further then benefits would be greater.

The limitations of the calculations used to estimate these figures should be recognised. It has been assumed that all tanks in the commercial/industrial/institutional and agricultural sectors are in the range of 2,500L to 5,000L, and tanks in the domestic sector now coming under regulations are roughly 1,000L, for the purposes of analysis. This is clearly not the case. In addition, it was not possible to quantify all of the benefits of introducing the Regulations; particularly in relation to reducing the risk to wildlife and habitats and helping to safeguard surface waters and groundwater. Nevertheless, the data included in this RIA should allow the merits of the proposed Regulations to be assessed.

The historic high incidence of water pollution from inadequate oil storage facilities justifies statutory measures to protect the environment. It is recommended that the proposed regulations are brought into force as soon as possible in order to better protect the aquatic environment.

## 8. Specific Impact Test

Although there may be some additional costs to small businesses it is not likely to affect their competitiveness or profitability. It is considered that introducing the Regulations will not disproportionately affect small businesses.

Small businesses and their representatives which might be affected by the potential implications of the Regulations are invited to respond to this consultation.

## 9. Enforcement, Sanctions, Monitoring and Review

Welsh Government and Natural Resources Wales (NRW) would jointly issue a publicise the regulations to alert oil consumers of their responsibility for complying

with the proposed regulations. This would be issued to consumers with the help of the oil industry trade associations who deliver oil to all sectors. Welsh Government would also issue detailed guidance explaining the proposed regulations.

In addition, information specific to Wales will be included on the Oil Care Campaign web site, which is a UK wide resource dealing with oil storage, delivery, use and disposal.

In consultation with Welsh Government, NRW would issue guidance and undertake training of regional staff to ensure that the proposed regulations were implemented, monitored and enforced fairly and equitably across Wales.

The proposed regulations provide a wide range of sanctions for operators of oil storage facilities (oil consumers) in breach of the Regulations. NRW would be sympathetic to the difficulties facing small businesses and organisations and would encourage them to comply with the proposed regulations so that any sanctions for non-compliance were proportionate to the problem.

NRW would monitor compliance with the proposed regulations in the data that is collected for the annual report on pollution incident statistics. NRW would ensure that monitoring data is consistent across Wales. If the proposals were introduced, we would formally review the effectiveness of the regulations and consider if the reasonable standards are appropriate in the light of further developments five years after the proposals are introduced.

In addition, the oil delivery companies, tank manufacturers and installers and their insurers will continue to co-operate with NRW in providing data on risks associated with delivery and storage.

## **10. Consultation**

This Impact Assessment forms part of the formal consultation process with key stakeholders on the implication of the proposed regulations.

We will use the consultation as a platform for obtaining views of small businesses likely to be affected in Wales, to improve our information on their additional costs and other impacts.