

## **Explanatory Memorandum to The Reservoirs Act 1975 (Exemptions, Appeals and Inspections) (Wales) Regulations 2015**

This Explanatory Memorandum has been prepared by the Department for Economy, Skills and Natural Resources and is laid before the National Assembly for Wales in conjunction with the above subordinate legislation and in accordance with Standing Order 27.1

### **Minister's Declaration**

In my view, this Explanatory Memorandum gives a fair and reasonable view of the expected impact of The Reservoirs Act 1975 (Exemptions, Appeals and Inspections) (Wales) Regulations 2015.

I am satisfied that the benefits outweigh any costs.

Carl Sargeant AM  
Minister for Natural Resources  
2 December 2015

## **1. Description**

The Reservoir Act 1975 was introduced to enforce adequate safety provisions for reservoirs. However, this Act was conceived in an era where there was little information available on risk from individual reservoirs. Advances in mapping and data now allow the enforcement authority (Natural Resources Wales) to rank reservoirs by their level of risk to human life. This means that the full suite of the Reservoirs Act 1975 regulations, which is based on volume of water as opposed to level of risk, is disproportionate for low risk Large Raised Reservoirs (LRRs).

The Reservoir Act 1975 currently applies to all reservoirs with a capacity of more than 25,000 cubic metres (roughly equivalent to 10 Olympic-sized swimming pools) above the level of the natural ground. The Flood and Water Management Act 2010 provides new arrangements for reservoir safety, allowing for a risk-based approach to the regulation of reservoirs in place of the prescriptive (volume-based) approach in the Reservoir Act 1975.

Schedule 4 to the Flood and Water Management Act 2010 allows the Welsh Ministers to make a number of amendments to the Reservoirs Act 1975 to ensure appropriate measures are in place to protect the public from a reservoir breach.

The Flood and Water Management Act 2010 allows for the extension of regulation to smaller reservoirs where risks to the public exist; hence, it is proposed that the 'threshold' capacity for regulation should be reduced to 10,000 cubic metres and above. This is based on a general consensus within the dam engineering profession, which suggests that 10,000 cubic metres represents the lowest level that could pose risks to the general public (i.e. anything below this level would not pose risk to human life).

This SI sets out in regulations the following:

- Specified things that should not be treated as a large raised reservoir under the Reservoirs Act 1975
- A right of appeal against designation of a high risk reservoir
- A right of appeal against notices given by NRW to either appoint an engineer or to carry out a recommendation of an engineer
- The timing of inspections of a high risk reservoir

## **2. Matters of special interest to the Constitutional and Legislative Affairs Committee**

There are no matters of special interest to the Constitutional and Legislative Affairs Committee.

### **3. Legislative background**

These Regulations will be made under sections A1(1), 2E(1), 5, 10(2) and 19A(1) of the Reservoirs Act 1975.

Those powers initially vested in the Secretary of State for Wales, so far as exercisable in relation to Wales, and were transferred to the National Assembly for Wales by the National Assembly for Wales (Transfer of Functions) Order 1999 (SI 1999/672). They now vest in the Welsh Ministers by virtue of section 162 of and paragraph 30 of Schedule 11 to the Government of Wales Act 2006.

These Regulations are subject to approval by the National Assembly by the affirmative resolution procedure.

### **4. Purpose & intended effect of the legislation**

The overall aim of this legislation is to ensure safety to the public from an uncontrolled release of water from a reservoir by imposing statutory obligations upon undertakers of 'high risk' reservoirs. If these 'high risk' reservoirs continue to be unregulated then the likelihood of failure at some point in the future will increase together with the associated risk to life. In the absence of this regulation it would be impossible to identify which of these reservoirs will fail and when. The likelihood of such failures would therefore increase, especially when additional risk factors such as climate change and ageing reservoir assets are taken into account. Natural Resources Wales have recently produced a document titled 'Reservoirs Failures and Near Misses in Wales'. It identifies a minimum of 11 serious incidents in Wales between 1875 – 2013.

The aim of the amendments to the Reservoirs Act 1975 as set out in Schedule 4 to the Flood and Water Management Act 2010 is to introduce a risk based approach to reservoir safety.

The intent of this legislation is:

- To provide clarity on things that should and should not be treated as a large raised reservoir for the purposes of the Reservoirs Act.
- To set out a process for reservoir undertakers to appeal a decision made by NRW regarding a high risk designation of their reservoir.
- To set out a process for reservoir undertakers to appeal the requirement to appoint an engineer or to carry out a recommendation contained within an engineers report.
- To set out timings for carrying out inspections of high risk reservoirs.

#### Exemptions:

The current regulations within the Reservoirs Act 1975 exempt the following from being classed as a large raised reservoir for the purposes of the Act:

- Water held in a reservoir that is below the natural level of any part of the land adjoining the reservoir below the natural land;
- reservoirs less than 25,000 cubic metres;

- mine or quarry lagoons (this will not be changed and continue to be included within the list of exemptions); and
- canal/inland navigation channels

The new regulations identify the following water bodies should be exempt from legislation:

- Mine lagoons, which is a tip within the meaning of Part I of the Mines and Quarries (Tips) Act 1969;
- Quarry lagoon, which is a tip within the meaning of the Quarries Regulations 1999; or a disused tip within the meaning of Part 2 of the Mines and Quarries (Tips) Act 1969;
- A canal or other inland navigation;
- Structures designed and constructed with the primary purpose to protect land from the sea:
- Areas of water situated in order to protect land from the sea;
- Embanked watercourses;
- Road and railway embankments except where the drain/drain through it are artificially blocked for the purposes of using areas upstream to store water; or the drain/drain through it are constructed so that water is stored above natural ground level.

The commencement of Schedule 4 to the Flood and Water Management Act will also reduce the threshold to 10,000 cubic metres for a large raised reservoir, therefore any raised body of water with a capacity under 10,000 cubic metres will also be exempt from regulation.

#### Appeals:

The new regulations allow undertakers to appeal decisions made by NRW regarding a high risk designation of a large raised reservoir and enforcement notices served by NRW/engineers. Appeals will be made to the Planning Inspectorate on behalf of the Welsh Ministers.

Reservoirs would be designated as high risk if an uncontrolled release of water could result in the loss of human life. Should an undertaker disagree with a high risk designation made by NRW, they can appeal to the Planning Inspectorate who will either confirm or cancel the designation decision. Whilst the appeal is being decided, the designation is suspended.

These new regulations also give undertakers the right to appeal to the Planning Inspectorate, against a requirement in an enforcement notice relating to:

- Section 8(1): Undertakers not employing a qualified civil engineer to be responsible for the alteration as a construction engineer.
- Section 8(3A): Undertakers not carrying in to effect measures to be taken in the interests of safety set out in an engineers report.
- Section 9(7): Where an undertaker has brought back into use a large raised reservoir after it had previously been abandoned without obtaining a report, or where a report to bring back into use has been obtained but recommendation it contains as to measures to be taken in the interest of safety have not been carried out.

- Section 10(7): That an inspection and report required for a high risk reservoir has not been made, or that where an inspecting engineers report includes recommendations as to measures taken in the interest of safety have not been carried out.
- Section 12(4): Where a high risk reservoir is not under supervision of a construction engineer or a supervising engineer.
- Section 13(5): Where a qualified civil engineer has not been employed.
- Section 14(4): Where an undertaker has abandoned a large raised reservoir without obtaining a report or where a report has been obtained, but recommendations it contains as to measures to be taken in the interest of safety have not been carried out.

On appeal against an enforcement notice, the Planning Inspectorate can confirm the requirements, modify the requirements or cease the requirements within a notice. Whilst the appeal is being decided, the requirement of the notice is suspended.

### Inspections

These new regulations set out timescales for periodical inspections of high risk reservoirs by a Qualified Civil Engineer (QCE), supervising and inspecting engineers. Whilst timescales were included in section 10(2) of the Reservoirs Act 1975, the new regulations update and make changes around high risk designations and put in place more specific timings for inspections.

Currently all large raised reservoirs are subject to supervision by a supervising engineer and regular inspections by an inspecting engineer. The amendments made by Schedule 4 to the Flood and Water Management Act 2010 introduce a risk based approach to reservoir safety to designate high risk reservoirs – those likely to endanger human life by an uncontrolled release of water. Under the new regime, only those designated high risk will be required to be under supervision of a supervising engineer and have regular inspections. Until an undertaker is notified by NRW that the reservoir is not high risk, the large raised reservoir will continue to be supervised and inspected, as set out in the Reservoirs Act 1975.

Periodical inspections of high risk reservoirs ensure that the regulatory regime keeps these safe for the public and aligns with Welsh Government policy of risk management.

### Impacts:

There are currently 224 large raised reservoirs in Wales registered with NRW with a capacity over 25,000 cubic metres.

There will be additional burden as a result of these regulations on current undertakers with reservoirs registered with NRW (those with a capacity over 25,000 cubic metres). The supervision and inspection regimes are already in place and being undertaken. The benefits will be to those undertakers of reservoirs where NRW identify that they are not high risk, in those cases the supervision and inspection regime will cease.

The regulations around the right to appeal give undertakers a process to appeal designations and requirements within an engineers report. The main impact will be upon the Planning Inspectorate who will hear the appeals.

NRW expect that a further 160 will be registered with NRW with a capacity between 10,000 and 25,000 cubic metres once Schedule 4 to the Flood and Water Management Act 2010 is in force, meaning in total there will be 384 large raised reservoirs registered with NRW. This does not necessarily equate to 384 undertakers, as some undertakers, for example Dŵr Cymru Welsh Water (DCWW) and NRW, will have multiple high risk reservoirs. Reservoir undertakers range from large organisations such as DCWW and NRW through to private landowners and farmers.

Once the requirement to register reservoirs with a capacity over 10,000 cubic metres comes into force and NRW designates these as high risk or not high risk, there will be more reservoirs under the Act and more that will require supervision/inspection than at present.

It should be noted that a high risk designation can be reviewed and changed at any time.

#### Risks of not implementing

Should these new regulations not be made it would not bring the smaller high risk reservoirs under legislation and not deregulate those reservoirs that are deemed not to have a high risk to human life. Without these regulations, there would be no process for undertakers to make appeals to decisions made by engineers and NRW.

In terms of the list of exemptions and the timing of inspections, these regulations are clarifying the current position.

Not commencing Schedule 4 to the Flood and Water Management Act could result in large raised reservoirs in locations where they pose no harm to human life if a breach occurred remaining fully regulated, whilst smaller reservoirs in key locations therefore posing a huge risk if an uncontrolled release were to occur would be left without formal monitoring and inspection.

Without these regulations, potentially high risk reservoirs would be left without a suitable inspection regime therefore putting communities and infrastructure at risk.

## **5. Consultation**

A Regulatory Impact Assessment (RIA) has been completed alongside this Explanatory Memorandum.

Details of the consultation are included within the RIA.

## **PART 2 – REGULATORY IMPACT ASSESSMENT**

### **Options**

There are only 2 options in terms of implementing these amendments to the Reservoirs Act 1975 as set out in Schedule 4 to the Flood and Water Management Act 2010; do nothing or bring into force the provisions.

**Do nothing:** this would see none of the provisions with Schedule 4 to the Flood and Water Management Act 2010 enacted. This would not bring the smaller reservoirs under legislation and not deregulate those reservoirs that are deemed not to have a high risk to human life. It would also not allow for regulations to be made providing an appeals process for undertakers to be brought into force.

**Option 1:** Bring into force the provisions of Schedule 4 to the Flood and Water Management Act 2010 to reduce the capacity of a large raised reservoir to those larger than 10,000 cubic metres, bring in a designation process and allow for regulations to be made including those around exemptions, appeals and timings of inspections. This formalises procedures already in place and allows for undertakers who do not agree with designations or requirements of a notice to appeal.

### **Costs & benefits**

#### Costs:

**Do nothing:** The 'do nothing' option would see no new regulations regarding reservoir safety as proposed by Schedule 4 to the Flood and Water Management Act 2010 made meaning no additional costs to undertakers. This would also see no deregulation of not high risk reservoirs and therefore no benefit to those reservoirs unlikely to cause harm to life.

**Option 1:** Bring into force the provisions of Schedule 4 to the Flood and Water Management Act 2010: this would allow for these regulations to be made around exemptions, appeals and timings of inspections as well as reducing the threshold of a large raised reservoir to over 10,000 cubic metres and designating high risk reservoirs.

There are currently 224 large raised reservoirs in Wales (with a capacity over 25,000 cubic metres).

Based on high risk designations already carried out in England and Scotland, around 94% have been designated as being high risk. If similar figures are seen in Wales, this would equate to 211 reservoirs.

In addition to this, it is expected that there will be a further 160 large raised reservoirs registered with NRW with a capacity over 10,000 cubic metres and not currently captured by the Reservoirs Act 1975. Should 94% of these also be designated high risk, this will add a further 150.

In total, it can therefore be estimated that there will be 361 high risk reservoirs with a capacity of over 10,000 cubic metres in Wales. These will all be subject to the regulations set out in this secondary legislation. The requirements in terms of monitoring and supervision will only be an additional burden on those 150 likely to be designated high risk with a capacity between 10 and 25,000 cubic metres. Those reservoirs with a capacity over 25,000 cubic metre capacity designated high risk will continue with their current regulatory regime.

In terms of the costs associated with the supervision requirements and timing of inspections of high risk reservoirs, the cost impact will only be on undertakers of the newly registered reservoirs with a capacity between 10,000 and 25,000 cubic metres that have not previously fallen under the requirements of the Reservoirs Act 1975.

As stated above, it is estimated that 150 of the reservoirs that will be registered with a capacity over 10,000 cubic metres that will require supervision and regular inspection. The costs associated with this are estimated at:

- Supervising engineer: £1500 per year per reservoir
- Inspection engineer report: £3000

These costs have been provided by NRW and are based on current supervising and inspecting engineer costs.

In terms of the costs of the supervision requirement and timing of inspection of high risk reservoirs, for current undertakers in Wales with reservoirs over 25,000 cubic metres and therefore already registered and being supervised and inspected, there will be no further costs incurred. Once designated, high risk reservoirs will maintain the same supervisory and inspection regime, however those designated not high risk will be deregulated and the requirements for supervision and inspection will cease.

In terms of the costs associated with the regulations around the Right of Appeal process, this would be to the planning inspectorate. Based on data from Environment Agency during their designation process in England of reservoirs over 25,000 cubic metres, approximately 5.5% of undertakers have so far appealed their designation decisions made, initially to EA to reconsider the designation. There is currently no data as to whether this will be a similar percentage for the 10-25,000 cubic metre reservoirs. Using the same percentage, the undertakers of 20 reservoirs designated as high risk could be expected to appeal the designation decision.

In the first instance, NRW will attempt to resolve the concerns of the undertakers around the designation and where appropriate and evidence is available may change the designations. Where this is not the case, an appeal can be made by the undertaker to the Planning Inspectorate

The cost associated with the use of the Planning inspectorate is approximately £740 per day with no set up costs. Written representations would be expected to take 3 days and where a hearing is required this could be up to 5 days. Therefore total costs could be estimated between £2,220 and £3,700 per appeal.



To date, Defra have not received any appeals against recommendations within engineer's reports during the 2 years of the regulations being in force. The final designations have yet to be sent out to undertakers and therefore no appeals have yet been brought against these.

### Benefits

For current undertakers with reservoir over 25,000 cubic metres in Wales and therefore already registered with NRW and being supervised and inspected under the requirements of the Reservoirs Act 1975, there will be no immediate impacts. The current regime will stay in place until such time that the undertaker is notified of high risk/not high risk designation.

Once designated, high risk reservoirs will maintain the same supervisory and inspection regime, however those designated not high risk will be deregulated and the requirements for supervision and inspection will cease and resource requirements be reduced. This could save undertakers approximately £1500 per year for supervising engineer duties and £3000 for a 10 yearly inspection engineer and report per reservoir, however whilst the inspection and associated report needs to be completed at a minimum of every 10 years, this could be required more frequently.

These regulations will benefit all undertakers by providing a right to appeal requirements within a notice given to the undertaker by an engineer or NRW.

These regulations requiring regular supervision and inspection will benefit the public by reducing the likelihood of a breach occurring.

### **Summary of financial costs and benefits**

The table below summarises the projected financial costs and benefits delivered through this legislation. It must be noted that the actual costs and benefits may differ dependant on the identification of additional reservoirs to that expected by NRW; and the maintenance needs of individual reservoirs that may lead to more frequent inspections than the 10 year maximum period plus variable remedial work. The projected number of appeals to a 'high risk' designation may also differ from best projections.

Reservoir supervision costs are based on an annual cost of £1500 per reservoir to undertakers (with an estimated 150 additional 'high risk' reservoirs).

Reservoir inspection costs are based on a £3000 cost for inspection for each of the 150 additional 'high risk' reservoirs every 10 years. This is an undertaker cost.

Appeal costs are based on a projected 20 reservoir undertakers appealing a high risk designation. Projections are based on written appeals costing £2,220 per reservoir. Appeals are spread over 2 years to reflect NRW's rolling designation plan. This would be a Welsh Government cost.

The benefit cost of deregulation is based on designation figures from England and Scotland, where 94% of existed high raised reservoirs were designated as high risk, leaving 6% as deregulated. Therefore 6% of the current 224 is a

projected 13 deregulated reservoirs saving annual supervision and 10 year inspection costs.

	Activity	2016	2017	2018	2019	...2025	TOTAL (NPV)
	Discount rate	3.5%	3.5%	3.5%	3.5%	3.5%	N/A
	Discount factor	1.00	0.965	0.931	0.899	0.726	N/A
<b>Costs</b>	Reservoir supervision costs	£225,000	£217,130	£209,530	£202,190	£163,280	£1,926,760
	Reservoir inspection costs	0	0	0	0	£326,560	£326,560
	Appeal costs	£22,200	£21,423	0	0	0	£43,620
	<b>Total</b>	<b>£247,500</b>	<b>£238,548</b>	<b>£209,530</b>	<b>£202,190</b>	<b>£489,840</b>	<b>£2,297,258</b>
<b>Benefits</b>	Deregulation benefits	£19,500	£18,820	£18,160	£17,520	£42,450	£195,290
	<b>Total</b>	<b>£19,500</b>	<b>£18,820</b>	<b>£18,160</b>	<b>£17,520</b>	<b>£42,450</b>	<b>£195,290</b>
	<b>Total: Net Benefit</b>	<b>-£227,700</b>	<b>-£219,730</b>	<b>-£191,370</b>	<b>-£184,670</b>	<b>-£447,380</b>	<b>-£2,101,650</b>

## Consultation

Welsh Government jointly consulted with Defra on amendments to the Reservoirs Act 1975 through a 12 week public consultation between 23 February and 17 May 2012. This consultation sought views on the various different amendments brought about by Schedule 4 to the Flood and Water Management Act 2010. 72 responses were received to this consultation which included responses from local authorities, environmental bodies, agricultural bodies, professional bodies (such as Institution of Civil Engineers), consultants, utility companies, representative bodies (such as RSPB) and individuals (predominantly panel engineers).

The consultation asked three questions seeking views on things to be included within the exemptions list, the majority of respondents agreeing with the suggestions set out in the consultation for exemptions. The consultation responses suggested other structures that might be considered as exemptions; however reasons for excluding these were limited and are therefore not included at this point.

The original consultation had suggested the use of the First Tier Tribunal to hear appeals under the Reservoirs Act 1975. Since this consultation it has been agreed that rather than use the First Tier Tribunal, a better option would be to use the Planning Inspectorate to hear the appeals under this legislation.

The majority of the respondents to questions on inspections agreed with the proposed approach to the arrangements set out for the timing of inspections. When asked about longer periods between inspections the majority of respondents disagreed with this, therefore there will be a maximum period of 10 years between inspections or a shorter period upon recommendations of the inspecting or supervising engineers.

A copy of the summary of responses to this consultation can be found on the [Welsh Government website](#)

A second consultation was carried out in Wales only from 18 June to 13 August 2013 to discuss options for commencing Schedule 4 to the Flood and Water Management Act 2010. The original joint consultation had put forward a 2 phased approach to commencement to firstly introduce the amendments to the Reservoirs Act 1975 to all reservoirs currently registered (with a capacity of over 25,000 cubic metres) and then to bring in the reduction to 10,000 cubic metres. This approach was proposed prior to the creation of NRW in April 2013 and was suggested in order to allow NRW as the enforcement authority time to establish and be better equipped to deal with the changes in the legislation. As time progressed in developing this legislation it was deemed that a phased approach was contradictory to Parliament's intent which was to take a risk based approach to reservoir safety. In addition NRW has now been established for over two years and have been working closely with officials to plan and prepare for these changes to come into effect. Responses to the second consultation were in agreement that all of Schedule 4 to the Flood and Water Management Act 2010 in relation to reservoir safety should be commenced in one go

A copy of the summary of responses to this consultation can be found on the [Welsh Government website](#)

## Competition Assessment

There are no expected detrimental effects on competition as the water sector is currently classed as a monopoly utility, therefore no market exists. In addition, the impacts of this legislation will be on all reservoir undertakers who will be required to comply with the safety regime set out in the Reservoirs Act 1975 (as amended).

The competition filter test	
Question	Answer yes or no
<b>Q1:</b> In the market(s) affected by the new regulation, does any firm have more than 10% market share?	No
<b>Q2:</b> In the market(s) affected by the new regulation, does any firm have more than 20% market share?	No
<b>Q3:</b> In the market(s) affected by the new regulation, do the largest three firms together have at least 50% market share?	No

The competition filter test	
Question	Answer yes or no
<b>Q4:</b> Would the costs of the regulation affect some firms substantially more than others?	No
<b>Q5:</b> Is the regulation likely to affect the market structure, changing the number or size of businesses/organisation?	No
<b>Q6:</b> Would the regulation lead to higher set-up costs for new or potential suppliers that existing suppliers do not have to meet?	No
<b>Q7:</b> Would the regulation lead to higher ongoing costs for new or potential suppliers that existing suppliers do not have to meet?	No
<b>Q8:</b> Is the sector characterised by rapid technological change?	No
<b>Q9:</b> Would the regulation restrict the ability of suppliers to choose the price, quality, range or location of their products?	No

### **Post implementation review**

The regulations provide clarity to the Act and processes for rights of appeal and timing of inspections.

Section 3 of the Reservoirs Act 1975 requires NRW to provide a report on a regular basis to the Welsh Ministers outlining steps that they have taken to enforce compliance with the Act. This will allow for the requirements of the new regulations to be monitored and reviewed. These will be biennial reports.

In addition, Welsh Government will review and report on the impacts of these regulations within 5 years of them coming in to force. This will allow Government to ensure that the policy objectives are being met and having the intended effect and consider whether any further legislation is required. A review and report of the regulations will then be carried every 5 years.