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Our Ref:  
Your Ref:  
Date: 15 April 2014

Dear Stella

## **RESERVOIRS BILL COMMITTEE MEETING 11 & 18 MARCH 2014**

Further to my letter of 2 April, Rivers Agency officials have now considered and commented on the issues raised by private sector reservoir owners during the stakeholder event on Tuesday 18 March 2014. This is attached at Annex A and, for ease of reference, Rivers Agency comments are set out immediately below each of the issues raised.

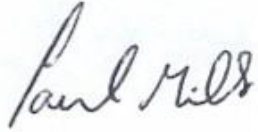
Rivers Agency noted the correspondence which the Committee received from the Department of Social Development dated 13 March 2014 which contains maintenance costs for Springfield Reservoir in Belfast. This information is useful as it will assist in preparing the supplementary Financial Memorandum which will be shared with the Committee.

Rivers Agency also noted the correspondence which the Committee received from NI Water dated 10 March 2014 containing details of the annual abstraction fee to the Northern Ireland Environment Agency for water that it draws from Camlough Reservoir. This cost is not related to reservoir safety. Due to their activity, NI Water will be a part manager for this reservoir under the Reservoirs Bill.



I would be grateful if you would bring this to the attention of the Committee.

Yours sincerely

A handwritten signature in black ink that reads "Paul Mills". The signature is written in a cursive style with a large initial 'P'.

**Paul Mills**  
**Departmental Assembly Liaison Officer**



**Reservoirs Bill**  
**Discussion with Private Sector Owners**  
**Tuesday 18 March 2014**

**Issue 1: Classification of Risk**

- Concerns about how the risk is designated, It is not based on the probability of the reservoir breaching.

*Comment: The Reservoirs Bill allows for both consequence and probability to be considered during the risk designation. However, as there is no industry standard for determining the probability, the risk designation will be based primarily on the consequence of total reservoir failure. Rivers Agency understands that the risk designation of reservoirs in England and Wales is also being determined on this basis and a similar approach will be taken in Scotland when its new legislation is commenced.*

- Other countries (USA & Australia) have achieved this yet we here say it is impossible.

*Comment: Rivers Agency position on this matter is based on advice from the Institution of Civil Engineers (ICE) which has informed the Agency that there is presently no industry standard for determining the probability of reservoir failure. Representatives of ICE re-stated this position in oral evidence to the ARD Committee on 25 March 2014.*

- This is coming from Europe yet some EU countries are not implementing this, why are we?

*Comment: The main driver for the reservoir safety policy emanates from the Government response to the Northern Ireland policy review of flood management 'Living with Rivers and the Sea' which was published in September 2008. One of the recommendations contained in the report was that "Appropriate legislation will be proposed to provide for regulatory control of reservoir safety in Northern Ireland by Rivers Agency."*

*The reservoir policy was informed by the preliminary flood risk assessment (PFRA) of Northern Ireland, which was a requirement of the EU Floods Directive. This assessment identified reservoirs as presenting a potential flood risk. The PFRA estimated that approximately 66,000 people are at risk from flooding due to total dam failure of the 151 reservoirs capable of holding 10,000 cubic metres or more of water.*

*This information was presented to the NI Executive in 2011 when it was agreed that DARD should bring forward legislation to regulate reservoirs in Northern Ireland.*

- Current classification of risk and the Bill are based on out of date flood maps.

*Comment: Rivers Agency has developed initial flood inundation maps in order to determine the provisional risk designation of those reservoirs that it considers will be regulated by the Bill. More detailed flood inundation maps will be developed for the formal designation of risk. These will include depth, velocity and time of inundation.*

- Unfair burden being placed on people who have had reservoirs placed upon them and classification may push them under.

*Comment: The management regime contained in the Reservoirs Bill reflects industry best practice and will be applied to all controlled reservoirs in Northern Ireland in order to ensure they are safe, as far as is reasonably practicable to do so. Under common law reservoirs managers have responsibility for reservoir safety and adherence to the requirements of the Bill may limit their liability in the event of a dam failure.*

- Reservoirs prevent more flood risk than they create. There is likelihood that abandoned or decommissioned reservoirs would create more flooding.

*Comment: All reservoirs provide some degree of flood attenuation. The purpose of the Reservoirs Bill is to ensure that those reservoirs capable of holding 10,000 cubic metres or more of water are safe. Rivers Agency strongly encourages adherence with the management regime contained in the Bill rather than the discontinuance or abandonment of reservoirs as it recognises the value of reservoirs in Northern Ireland. However, Rivers Agency also recognises the right of the reservoir owner to discontinue or abandon a reservoir and these activities should be carried out responsibly, obtaining the necessary approvals and consents to mitigate flooding or other impacts. When the Bill is enacted any alteration to a reservoir must be supervised by a construction engineer.*

- Risk comes from probability, if a high risk reservoir has £20k worth of improvements for example, it would still be high risk. How is this workable?

*Comment: Risk designation will be determined by the consequence of total reservoir failure. The probability of reservoir failure cannot be determined at this time, for the reasons stated above. In the*

*circumstances the only means of reducing a risk designation will be to reduce the consequential effect of total reservoir failure.*

- We always hear about reducing red tape, yet it seems to be being created here along with an industry.

*Comment: As stated previously, the management regime contained in the Reservoirs Bill reflects industry best practice and will be applied to all controlled reservoirs in Northern Ireland in order to ensure they are safe, as far as is reasonably practicable to do so. This also provides assurance to the 66,000 people living in the inundation area of these reservoirs that this risk is being managed appropriately.*

## **Issue 2: Panel of Engineers**

- Grant aid should be 100% for both inspection and remedial work. It is unfair when private owners are categorised with councils and other Government bodies who have access to money.
- *Comment: Rivers Agency acknowledges the costs associated with the commissioning of reservoir engineers and any remedial works that are required to ensure, as far as is reasonably practicable, that the reservoir is safe. The Reservoirs Bill provides the Department with the power to make, by regulation, grant payments to reservoir managers of controlled reservoirs to enable them to comply with their obligations in the Bill.*
- Reservoirs owners/managers have successfully regulated their reservoirs here for years, why the need now for experts?

*Comment: The vast majority of reservoirs in Northern Ireland were constructed from clay core embankments, which are now more than 100 years old. The ICE has stated that the engineering involved would be considered to be primitive when compared to the standard of reservoir construction today. Also, anecdotal evidence would suggest that many reservoirs in private and 3<sup>rd</sup> sector ownership have not been subjected to any type of maintenance regime over the years and certainly not to the standard required by the Reservoirs Act 1975 which applies in England, Scotland and Wales. Therefore, it is fair to assume that many of the privately owned reservoirs are very old and could be in poor condition. The introduction of the Reservoirs Bill will ensure that controlled reservoirs are properly supervised and inspected by qualified reservoirs engineers and that any remedial works to make them safe are undertaken in a timely way.*

- Reservoirs are covered by 3rd party insurance.  
*Comment: The Agency is unsure as to the extent of the cover provided by insurance companies. In particular, would such insurance extend to damage or injury in the inundation area of a reservoir caused by reservoir failure or breach, when no inspection or maintenance regime is in place.*
- One engineer in Northern Ireland who is not quite yet a panel engineer. Are we creating an industry? Other engineers could have the ability/capability to do this, is there a need for panel engineers?
- *Comment: Reservoir panel engineers are recognised as having achieved a level of competence and experience in the specialism of reservoir engineering. This allows them to be covered by the appropriate professional indemnity insurance which other engineers would not be able to obtain. With the introduction of the Reservoirs Bill, the Department will follow the policy long held by the Department for Environment, Food and Rural Affairs in ensuring that only those engineers recommended by ICE can be commissioned to supervise and inspect controlled reservoirs in Northern Ireland.*
- No engineer will ever say a reservoir is 100% safe.  
*Comment: No-one can give such assurance to a reservoir manager. However, adherence to the industry best practice management regime contained in the Reservoirs Bill should generally reduce the risk of total reservoir failure.*

### **Issue 3: Planning Issues**

- Concerns about who will police the planning aspect.  
*Comment: The new policy entitled 'Development in proximity to Reservoirs' in draft PPS 15 places an onus on the developer to ensure that the flood risk has been assessed and there are suitable measures to manage and mitigate the identified flood risk. All applications will require the developer to provide DOE Planning with a flood risk assessment, prepared by a reservoir panel engineer detailing any necessary upgrading to the reservoir and its management regime. This will require the developer to engage and to reach agreement with the reservoir manager on the proposed development. The financing of any associated costs to the reservoir and its supervising/inspecting regime*

*would be a matter between the developer and the reservoir manager. This should provide assurance about reservoir safety which will enable development to proceed. Where such assurance is not forthcoming, planning permission will be refused.*

- Concerns about abandoned reservoirs which would need planning permission to be decommissioned.

*Comment: DOE Planning advise that the meaning of development is set out in Article 11 of the Planning (NI) Order 1991 which reads:*

*“...development means the carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of buildings or other land.” This wording has been carried over to Article 23 of the Planning Act (NI) 2011 which will be commenced next year. Therefore, planning permission is required in advance of any development covered by Article 11 of the Planning (NI) Order 1991. DOE Planning further advises that the need for planning permission for the abandonment / discontinuance of reservoirs will depend on the nature of any associated works and whether these would constitute engineering operations. Planning permission would also be required for a change of use; e.g. for recreational purposes. Reservoirs owners should, therefore, seek advice from DOE Planning, if abandonment / discontinuance of a reservoir is being considered.*

- Mills are frequently downstream from reservoirs, and employ people. Options could be to fix/make it safe or get rid of employees.

*Comment: Adherence to the industry best practice management contained in the Reservoirs Bill will significantly reduce the risk of total reservoir failure and make reservoirs safer thus negating the need to redeploy employees. All employers have a duty under Health and Safety legislation to undertake risk assessments, to ensure that any significant risks are appropriately managed therefore ensuring employees are working in a safe environment.*

- Dishonest builders may build without permission. This will have or could have a negative effect on your reservoir until a case is decided on, maybe even 3-4 years.

*Comment: As stated previously, the risk designation of a controlled reservoir will be determined by the consequence of total reservoir failure on the reservoir inundation area. The legal status of development cannot be a consideration when deciding the risk designation.*

#### **Issue 4: Operating requirements**

- Concern re ‘capable of holding’ – what if there is no economic reason to ‘fix’ a reservoir. Will an engineer still be required?

*Comment: Yes. The purpose of the Reservoirs Bill is to make all controlled reservoirs as safe as possible.*

- Low number of failed reservoirs here – what is the reasoning behind the Bill for low key reservoirs?

*Comment: The Reservoirs Bill will introduce a risk-based approach for the management and regulation of controlled reservoirs in Northern Ireland. The management regime will be proportionate to the impact of total reservoir failure in the flood inundation area. The risk designations are; High, Medium and Low. Reservoirs with Low Risk designation will be subject to minimal requirements.*

- Engineer’s recommendations could increase costs for some reservoirs significantly but could also reduce them or reduce fears around the process.

*Comment: The reservoir panel engineer will be commissioned to carry out a full and thorough examination of the reservoir and will make recommendations based on their observations as to the measures required in the interest of safety. Those measures directed in the interests of safety must be carried out by the reservoir manager. If the reservoir manager carries out these directions their liability and the risk of failure is reduced.*

#### **Issue 5: Grant Aid**

- Grant aid would need to be a guarantee. Community assets will be lost and the time and effort spent in developing them will have been wasted. Huge impact on the community.

*Comment: There is no guarantee that aid will be available as this depends on many things particularly the availability of funds and the Executive spending priorities. Executive agreement will be required, when the Reservoirs Bill is enacted.*

- If a dam is filled in, will compliance still be required?

*Comment: A reservoir that is abandoned, i.e. no longer capable of holding any water above the natural level of the surrounding land, will not come within the scope of the Reservoirs Bill. This activity must be*



supervised by a construction engineer and a certificate obtained certifying that works have been completed correctly.

- Concern regarding getting a dam up to the required standard and the associated capital costs. Grant aid is a grey area.

*Comment: The Reservoirs Bill provides the Department with the power to make, by regulation, grant payments to reservoir managers of controlled*

*reservoirs to enable them to comply with their obligations in the Bill. The Executive will consider this need after the Bill is enacted.*

- Wildlife and biodiversity issues need to be considered if grant aid at 100% is not provided

*Comment: Any grant payments made will be to enable reservoir managers to comply with their obligations in the Bill which is to make the reservoir safe. Reservoir managers will be advised to seek the appropriate consents/approvals prior to undertaking measures to ensure that they are not in breach of any other legislation.*

- Bill will have an impact on a range of issues if grant aid not given – health, social benefits, biodiversity and environmental impact.

*Comment: Rivers Agency accepts the diverse use made of reservoirs. However, the sole purpose of the Reservoirs Bill is to introduce a risk-based approach for the management and regulation of reservoirs in order to protect the public from the risk of flooding.*

- Funding should be open ended – if time bound then just delaying the problem.

*Comment: The viability of the payment of grants over the long term will be considered when developing the business case. Executive priorities and the availability of resources will be key factors in the long term payment of grant aid.*

- Requirement for more record keeping – too much red tape. Will this necessitate employing an additional person just for this purpose?

*Comment: Keeping records of reservoirs is an important element of the management regime for reservoirs. For example, the changes in the water level may indicate a reservoir leakage. It is envisaged that a reservoir manager should be able to maintain these records and therefore employment of an additional person should not be required. The management regime contained in the Bill was subjected to a Regulatory Impact Assessment the outcome of which was that it is not overly bureaucratic. The Bill complies with the principles of Better Regulation, in particular, it facilitates the introduction of a proportionate*

management regime that places most requirements on managers of reservoirs that pose the greatest risk to human life and limited requirements on managers of low risk reservoirs.

### **Issue 6: Decommissioning**

- The Bill will not stop you decommissioning a reservoir but there needs to be recognition of the wider use i.e. community and environmental costs.

*Comment: As stated previously, Rivers Agency would prefer that reservoir managers adhere to the management regime in the Reservoirs Bill rather than decide to discontinue or abandon the reservoir.*

- Will Rivers Agency take costs if clubs etc. go into liquidation? Rivers Agency will but they may pursue for costs.

*Comment: The Reservoirs Bill provides the Department with emergency powers to protect persons or property against an escape of water from a controlled reservoir*

### **Other Issues**

- There seems to be no concern for the rights of unknowing reservoir owners, particularly stress and wellbeing issues.

*Comment: Rivers Agency readily acknowledges that the requirements of the Reservoirs Bill are a concern for some reservoir owners/managers, particularly those who were not aware that they owned/managed a reservoir. However, the primary purpose of the Bill is to ensure that controlled reservoirs are as safe as possible in order to protect the public and property from flooding.*

- Concern around correct definition and explanation of a reservoir, including qualifying amount.

*Comment: The definition of a controlled reservoir is set out in Sections 1 to 5 of the Reservoirs Bill.*

- The consultation process between Rivers Agency and reservoirs owners prior to tonight. How many have further fell through the loophole?

*Comment: Rivers Agency held 3 stakeholder events from July 2011 to November 2011 the purpose of which were to inform and help shape the policy development on reservoir safety. These events were followed by the formal Public Consultation on the reservoir safety policy draft proposals which took place between March and June 2012. During the Public Consultation period Rivers Agency held 6 information events.*

*When preparing for the informal and formal consultation Rivers Agency made every effort to identify and contact all those that own or manage a reservoir.*

*Rivers Agency has now identified who we believe the owns or manager all but 6 of the 151 controlled reservoirs in Northern Ireland, many of which, despite the Agency's best efforts, were not known at the time of the public consultations.*

- Importance of dams regarding heritage and the true definition of why the Bill is being brought forward.

*Comment: The Bill seeks to protect all structures from failure, including those with heritage value. The Explanatory and Financial Memorandum that accompanies the Reservoirs Bill contains the background and policy objectives of the legislation.*

- Ecology issues were decommissioning may be the only option and the impact on wildlife including endangered species.

*Comment: Decommissioning of a reservoir would require a number of consents or approvals prior to this activity taking place. Rivers Agency has no powers to stop decommissioning a reservoir prior to the legislation being enacted. When enacted the discontinuance or abandonment requires the supervision of a construction engineer. Rivers Agency considers that improving reservoir safety is the best means of protecting the environment. Rivers Agency is working closely with the Northern Ireland Environment Agency to ensure that appropriate consideration of the environment is fully taken into account when deciding a reservoir's risk designation.*

- How will any work that is undertaken improve the mitigation of failure?

*Comment: It is considered that any works undertaken in the interests of safety will reduce the risk of reservoir failure.*

- A need for a simple way of decommissioning reservoirs including a reasonable get out clause for owners unable for the costs. This is seen as a last resort and not what we want to see.

*Comment: As stated previously, Rivers Agency would prefer that reservoir managers adhere to the management regime in the Reservoirs Bill rather than decide to discontinue or abandon the reservoir.*

- Concern regarding the consultation process carried out by Rivers Agency.

*Comment: See previous comment on the consultation process.*

- Private owners should have been properly identified before consultation began in order to influence thinking.

*Comment: See previous comment on the consultation process.*

- Whilst the Bill is a well-researched engineering document, no thought has been given to social and environmental concerns.

*Comment: The reservoirs safety policy was subjected to equality, regulatory, social, economic and environmental impact assessments, the results of which informed and shaped policy considerations and the drafting of the Bill.*

- Committee cannot make a judgement call unless all costs for private owners are known.

*Comment: Rivers Agency acknowledges that it will not be possible to assess the full costs of a management regime and any remedial works until after all of the controlled reservoirs have been inspected by an inspecting panel engineer. The Agency has provided estimated costs for supervision and inspection of reservoirs and a range of indicative costs for minor or major remedial works.*

- Rivers Agency has agreed to provide the risk assessment and flood maps.

*Comment: A Flood Inundation Map and provisional risk designation will be made available to reservoir owners/managers on request.*

- The Bill will not be a priority within the budget and therefore grant aid may not be guaranteed.

*Comment: Rivers Agency acknowledges it cannot be definitive on this matter. It is for this reason that the Bill advises that the Department may rather than will make provision for the payment of grants to reservoir managers.*

- If initial works are identified will there be financial assistance?

*Comment: As previously stated, there is no guarantee that aid will be available as this depends on many things particularly the availability of funds and the Executive spending priorities.*