



## **Implications of the Reservoir Bill to NI Water**

### **1. Implications of the Reservoirs Bill to NI Water**

#### **1.1 Introduction**

DARD Rivers Agency (Rivers Agency) is the competent authority for the implementation of the EU Floods Directive in Northern Ireland. The Reservoirs Bill is being introduced to make provision for the regulation of the management, construction and alteration of certain reservoirs, in particular in relation to their safety to collect and store water; and for connected purposes. The Reservoirs Bill seeks to introduce management regimes on controlled reservoirs (defined as a structure or area which is capable of holding 10,000 cubic metres or more of water above the natural level of any part of the surrounding land), dependent on the risk associated with the structure.

NI Water is, like its predecessor DRD Water Service, committed to ensuring the safety of the public of Northern Ireland. It has already been managing its impounding dams in line with the England and Wales Reservoirs Act 1975.

NI Water has arranged that competent staff carry out inspections on a monthly, biannual, and annual basis. In addition NI Water employs an Independent Inspecting Engineer to carry out 10 yearly inspections ('Section 10 surveys') and provide a comprehensive report on the Reservoir condition, including recommendations for any work which may be required. The Independent Inspecting Engineer holds an 'Inspecting Engineers Certificate' and is a member of the Panel AR (All Reservoirs Panel) under the Reservoirs Act 1975. For any improvements identified on the Section 10 surveys NI Water then puts in place a programme of work to address the recommendations. The most recent round of Section 10 surveys were carried out in 2007, and the last of the recommendations are being delivered in the current PC13 period.

To comply with the new NI Reservoirs Bill, a new activity to NI Water will be the preparation and maintenance of formal on-site and off-site flood plans.

#### **1.2 Summary**

As the largest single owner of structures that will be affected by the proposed Bill, NI Water welcomes the clarity that it will bring regarding responsibilities and management. Overall the introduction of the Reservoir Bill will not have a major impact on NI Water, apart from the requirement to prepare on-site and off-site flood plans. It may have a greater impact on the impoundments which are in private ownership.

### **1.3 NI Water Assets affected by the Reservoirs Bill**

NI Water has 71 structures under its ownership that will fall within the proposed NI Reservoirs Bill. These are set out in Appendix 1.

These are:

- 46 impounding reservoirs (including two that are operated under the PPP Alpha Contract)
- 25 Service Reservoirs or Clear Water Tanks at 13 sites (including two that are operated under the PPP Alpha Contract)

For the majority of these sites NI Water will be the designated 'Reservoir Manager' and carry out all related responsibilities. This will include Killea Impoundment, an out-of-service impoundment that spans the border with Donegal. NI Water is currently negotiating to secure the ownership of the land surrounding this reservoir.

The sites that will have a different management regime are the 5 currently operated under the Alpha PPP contract. These are the clear water basins (large tanks that hold treated water before it is put into supply) at Dunore Point Water Treatment Works (WTW), Castor Bay WTW and at Ballinrees WTW, plus the 2 raw water impoundments at Ballinrees and Altikeeragh. The PPP operator will be the 'Reservoir Manager', with duties for surveys and inspections. However NI Water is contractually obliged to meet any necessary repair costs.

In preparation for the introduction of the Reservoir Bill NI Water developed an action plan to prepare for compliance when the Bill is introduced. This plan was completed in 2011 and is currently being implemented.

### **2. How the Reservoirs Bill will impact NI Water's estate management plan and Disused Asset Disposal**

NI Water's Estate Management Plan (EMP) lists a number of impounding reservoirs which are no longer required for operational use and are therefore due to be disposed of. This is because each reservoir has been out of service for some time, and each has been assessed as being unsuitable as a future source of raw water.

Despite each being 'out of service', and where possible leased for recreational use, such as fishing, these unused reservoirs are loss making and require ongoing inspection and maintenance. As a public body and under our regulatory licence NI Water is required to efficiently manage its assets and obtain best value from the release of unused assets.

There are a number of other factors to be considered including:

- recent economic issues have impacted upon land values for property development and other commercial uses;
- the proposed new NI Reservoirs Bill is likely to reduce the potential sale value of disused impounding reservoirs where the buyer proposes to maintain the structure to retain water. This is because the new owners will be required to fund and implement a legally required programme of surveys and to carry out the maintenance recommended;
- Councils and environmental bodies are concerned that many of the impounding reservoirs should remain due to the ecological and environmental benefits that have been realised at these sites over the years and;
- Government departments, such as DCAL, and Councils are reluctant to take on new cost liabilities.

### **3. Plans for the 2016/17 'Section 10 Surveys'**

NI Water is including funding for the next set of 'Section 10 surveys' to be carried out in 2016/17 in the PC15 Business Plan, which it to be submitted to the Utility Regulator in March 2015.

### **4. Camlough Dam Arrangements**

Camlough Dam is a particular example of an impoundment which is operated by a range of bodies and will be affected by the new Reservoirs Bill. Due to the complexity of arrangements regarding this particular impoundment, more details have been provided below.

The 'Newry Improvements and Water Act 1871' set up 'Camlough Waterworks Trustees' to build a dam on Camlough Lake to regulate the flow and supply of water in the Camlough River. The Trustees are technically the owners of the dam; however they are now deceased.

Camlough Lake has been used as a raw water source since local government reorganisation in 1973. The current rate of abstraction by NI Water from the lake is 4-5 MI/d – this roughly serves a population of 20,000.

As NI Water does not own the lake bed or the dam it has not historically inspected or maintained it. There is nothing within the terms of the historical or current abstraction Licenses for Camlough Lake that would constitute an obligation to maintain the site or the impounding structure.

In February 2010 Rivers Agency informed NI Water that a NI based England & Wales Reservoir Act 1975 'Panel Engineer' (Mr Alan Cooper, URS Consultants) had indicated the dam should be cleared of vegetation and an inspection made.

In 2011 NI Water commissioned a preliminary inspection of the main dam at the Camlough Lake to:

- assess the assets being used by NI Water to supply drinking water into Newry and the surrounding area as part of the 2012 Water Resource Management Plan (WRMP).
- inform NI Water's consultation response on the proposed NI Reservoirs Bill.

This report was completed in February 2012 concluded that a high level estimate of costs to improve the dam safety in accordance with the requirements of the England & Wales Reservoirs Act 1975 (including the 2003 and 2010 amendments) would be in the order of £3.4m. In addition, annual operational costs of around £13,000 would be required for maintenance and inspection and a 10 yearly inspection is required at an approximate cost of £3,000.

There have been a number of stakeholder meetings to address issues of ownership and responsibilities under the NI Reservoirs Bill as well as a way forward for the funding of surveys and improvement works. URS provided a report to the key stakeholders on 3 February 2014 which set out a revised more accurate estimate of the cost of works necessary to comply with the NI Reservoirs Bill (£2.5m), the annual maintenance costs thereafter, and considered a number of options. The report was developed to inform further discussions on deciding how to fund and deliver the works to improve the dam, and to consider its future ownership and long term management. A further stakeholder meeting is planned to meet and discuss the findings of this report in February 2014.

## Ownership of Camlough Dam

NI Water has no interest in becoming the owner of the reservoir as it is uncertain of whether or not it will be required as a source of raw water from 2017. N&MDC has stated an interest in becoming the owner, however needs to understand the associated operating and maintenance costs (the recently completed report should meet this requirement). A number of legal issues remain to be resolved.

## Benefits

NI Water has tried to identify the key stakeholders to determine what benefits are provided by the reservoir. These are listed below.

	Benefit	Beneficiary	Responsible Party
1	Raw water supply	Customers of NI Water (the Camlough WTW supplies some of NI Water's customers in the N&MDC area. It does not supply any other area.)	<b>NI Water</b> – however could discontinue using this source from April 2015. A review to be completed in 2017 will determine if NI Water should continue to use this source.
2	Recreation & Tourism	Residents and businesses, predominantly from within the Newry and Mourne District Council (N&MDC) area.	<b>N&amp;MDC</b> has built facilities and operates them (such as the slipway, car park, & disabled access walkway). The council promotes the area due to scenery (has built and maintains other car parks around the reservoir).
3	Control of levels in the Newry & Mourne Canal	N&MDC - who are responsible for the maintenance of the canal.	<b>N&amp;MDC</b> has operated the valves to do this and has stated through their lawyer that it wants to continue to do so.
4	Release of water during low levels to provide water for animals & land (direct from the river)	Residents of N&MDC area who have lands along the downstream river.	A ' <b>community group</b> ' that N&MDC engages with.
5	Attenuation of storm water leading to a reduction in peak discharge during storm events.	Owners and occupiers of properties in the floodplain.	<b>Rivers Agency</b> (ref EU Flood Risk Management Plans). Rivers Agency would not permit removal of the dam unless detailed analysis has been carried out, and if found to be necessary suitable alternative flood alleviation measures are in place. Rivers Agency has noted that significant development on the original flood plain and to watercourses downstream has occurred since the dam was built in 1870.

## **Appendix 1: Schedule of NI Water's Impounding Reservoirs**

NI Water has recently disposed of 2 No Impounding Reservoirs and is now responsible for 46:

### **Impounding Reservoirs In Service (23 No):**

- 1) Copeland
- 2) Clay Lake
- 3) Seagahan
- 4) Altnaheglish (IR)
- 5) Glenhordial (WTW)
- 6) Lough Fingrean
- 7) Lough Bradan (IR)
- 8) Mourne Silent Valley IR 2
- 9) Mourne Silent Valley IR 1 (Ben Crom)
- 10) Spelga IR
- 11) Fofanny IR
- 12) Woodburn Lower (3)
- 13) Woodburn Lower (1)
- 14) Woodburn Lower (2)
- 15) Killylane (IR)
- 16) Woodburn North
- 17) Dungonnell (IR)
- 18) Altnahinch (IR)
- 19) Ballinrees (IR) (Operated by PPP)
- 20) Altikeeragh (Operated by PPP)
- 21) Lough Island Reavy IR
- 22) Loughmourne (Carmanus)
- 23) Dorisland

Not included in the above list are Lough Fea, Lough Macrory, Lough Lee – which NI Water has categorised as natural loughs.

### **Impounding Reservoirs Out of Service (23 No):**

- 1) Creightons Green (IR)
- 2) Ballysallagh Upper
- 3) Craigahulliar
- 4) Altmore (High)
- 5) Altmore (Low)
- 6) Killea (WTW)
- 7) Ballydoolagh (IR)
- 8) Ballysallagh Lower
- 9) Church Road
- 10) Conlig Lower (IR)
- 11) Boomers Reservoir
- 12) Ballintemple IR
- 13) Knockbreckan
- 14) Stoneyford Reservoir
- 15) Leathemstown
- 16) Quolie (South)
- 17) Quolie (North)
- 18) Ballyversall
- 19) Dunalis
- 20) Lough Cowey
- 21) Lough Money
- 22) Portavoe IR
- 23) Conlig Upper

**Impounding Reservoirs Sold:**

- Tannaghmore
- Ballywillan

Note also that Killyfole / Killyfoyle was transferred back to the local Council many years ago.