



guardians of drinking water quality

DRINKING WATER INSPECTORATE

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10 July 2019

Mr Ceri Jones
Assets and Assurance Director
Northumbrian Water Ltd
Baldon House
Wheatlands Way
Pity Me
Durham
DH1 5FA

Dear Mr Jones

PERIODIC REVIEW 2019: Northumbrian Water
DWI Scheme reference: NNE_ESK UV Mosswood WTW

FINAL DECISION LETTER

The Inspectorate has completed its detailed assessment of the scheme proposed by Northumbrian Water to provide an Ultraviolet disinfection stage at the following treatment works: Mosswood WTW operated by Northumbrian Water, to secure or facilitate compliance with the standard for disinfection in drinking water.

The detailed assessment also took in to consideration the outcome of the risk assessment report submitted to the Inspectorate as required by regulation 28(1) of the Water Supply (Water Quality) Regulations 2016 (as amended) for Mosswood WTW and the connected supply system.

A summary of the outcome of our assessment of this scheme is attached. Based on the information submitted by the Company, the Inspectorate supports the need for a scheme to inactivate *Cryptosporidium* oocysts in the treated water for water quality reasons, and the supported scheme shall be included by the Company in its Final Business Plan, subject to the caveats listed in the attachment.

In this instance the Inspectorate intends to issue a Notice under Regulation 28(4) of the Water Supply (Water Quality) Regulations 2016 (as amended), which requires the Company to mitigate the risk of Raw Water deterioration, that has been identified as a potential danger to human health from the water supplied from Mosswood WTW.

It is expected that the Company will continue to monitor the treated and raw water at Mosswood works, and that it will take all reasonable steps to prevent contraventions of the standards.

I am copying this letter to:

- Tom Lowe and Kevin Ridout at Ofwat;

- Elinor Smith at the Environment Agency;
- Bernard Crump (CCW Chair, Central and Eastern)

Please contact Sue Pennison (Sue.Pennison@defra.gov.uk) with any queries relating to this letter.

Yours sincerely

A handwritten signature in blue ink that reads "Milo Purcell".

Milo Purcell
Deputy Chief Inspector

PERIODIC REVIEW 2019

SUMMARY OF DWI ASSESSMENT – LETTER OF SUPPORT

Comment	
<u>Water company:</u>	Northumbrian Water
<u>DWI scheme reference(s):</u>	NNE_ESK UV Mosswood WTW
<u>Scheme name:</u>	Mosswood WTW – Raw water deterioration
<u>Proposal:</u>	The company proposes the construction of a new UV treatment process at Mosswood to address the changes to catchment water quality at Derwent Reservoir and remove the impact on the Tyne Tees Transfer Scheme (TTTS) resilience.
<u>Supporting evidence:</u>	Annex A submission – Mosswood WTW Deteriorating Raw Water Quality DWI Risk Assessment Report DWI A0700022 -> Mosswood Raw received 5 March 2019
<u>Conclusion:</u>	Subject to the caveats listed below, the Inspectorate supports the need for the following scheme: To install and operate a UV (disinfection) treatment process stream to achieve 3 log removal at Mosswood WTW to address the changes to catchment raw water quality.
<u>Timescale:</u>	Completion date: An early start in AMP7 is projected by the company with delivery of the selected option expected to be completed by December 2022
<u>Estimated cost:</u>	Estimated capital costs: Additional treatment at Mosswood WTW - £5.8m capex, with additional OPEX costs £0.2m across the AMP
<u>Legal Instrument Required:</u>	Notice under Regulation 28 (4)
<u>Caveats:</u>	Subject to agreement to, and completion of, more intensive investigation to provide further information to confirm steps to be taken and project completion dates That the UV (disinfection) treatment process stream installed achieves 3 log removal for Cryptosporidium in the Final water at Mosswood WTW to address the changes to catchment raw water quality.
<u>Comment:</u>	DWI has no role in determining proportional allocation of expenditure. Where DWI technical support is given, this should not be taken by the company to imply that the scheme will be partially or wholly funded as a Quality item. Schemes that require a legal instrument are considered necessary to meet statutory drinking water quality requirements. These schemes will be transposed to formal programmes of work by DWI as soon as possible and their implementation and completion will be monitored, audited and closure confirmed by DWI.

