



Context statement to inform the use and release of the GHD/Boffa Miskell report commissioned by DIA “Cost estimates for upgrading Wastewater Treatment Plants to meet Objectives of the NPS Freshwater”

The statement has been compiled by representatives from DIA, MfE, Regional Councils and GHD- Boffa Miskell

Affordability of water infrastructure has been identified by the Three Waters Review as one of the main challenges facing the current three waters system. The purpose of the Review is to develop the options and recommendations needed to create a strong and sustainable three waters system.

GHD and Boffa Miskell were commissioned by the DIA-led Three Waters Review Team to scope the national level compliance cost for local authority wastewater treatment plants discharging to freshwater to meet the objectives for freshwater based on water quality criteria from the National Policy Statement for Freshwater Management (NPS Freshwater).

This followed a similar report completed earlier in 2018 by Beca, “Cost Estimates for Upgrading Water Treatment Plants to Meet Potential Changes to the New Zealand Drinking Water Standards”.

The GHD/Boffa Miskell report provides an indicative and high level cost as a useful starting point. While the report did not consider the full range of requirements of the NPS Freshwater, it provides a sound base to build from and to inform ongoing policy work ahead of further advice on three waters regulatory arrangements being provided to Ministers in 2019.

The findings of the report show that the costs associated with upgrading wastewater treatment plants for particular contaminants are only one piece of the much larger jigsaw puzzle in trying to quantify the costs across a complex system. This report focussed only on wastewater treatment plants that discharge into freshwater environments (47 percent of the 321 wastewater treatment plants run by councils).

Most (82 percent) of the wastewater treatment plants discharging to freshwater service small rural communities and these plants are likely to require upgrades to increase their capability to remove nutrients and E. coli prior to discharge. The cost of the upgraded plants, and their ongoing operation and maintenance, will be significant for small communities, particularly those with declining populations, and will present pertinent policy questions on how these communities will be able to meet environmental objectives.

In addition to the costs identified by this report, further work is required to understand the costs associated with upgrading infrastructure discharging into the coastal environment (25 percent of plants, servicing 75.8 percent of New Zealand’s population), the wastewater network and overflows, and the adaptation required for future resilience, including climate change.

The report did not consider the costs associated with servicing growing populations, nor does it explore the ability of communities to manage costs by upgrading infrastructure over extended periods.

While acknowledging that compliance with NPS Freshwater requires the effects of discharges on water to be measured after reasonable mixing, the costs provided by the report assume a discharge quality at the point of discharge. However, the methodology used by the report does incorporate an understanding of the receiving environment that the treatment plant discharges into and the overall impact that the discharge has on that environment.

Significantly, the report highlights that the overall impact of wastewater treatment plants on receiving environments relative to other sources of contamination varies widely throughout the country. For example, the report looks at two Waikato case studies and concludes that the proposed upgrades would provide a “low benefit” to the receiving environment after reasonable mixing. However in other cases there is likely to be clear environmental benefits from upgrades.

Completing the report also reinforced another of the key challenges identified by the Review: issues with the oversight and coordination of the three waters system at a national level, and the variability of readily available and comparable data for the general public and agencies other than the councils that operate or regulate discharges.

19 October 2018