

28 February 2023

Ministry for the Environment
Wellington
Via web portal

Tēnā koutou katoa

SUBMISSION FROM WATER NEW ZEALAND ON THE DRAFT NATIONAL ENVIRONMENTAL MANAGEMENT PLAN FOR PFAS VERSION 3.0

INTRODUCTION AND OVERVIEW

1. Water New Zealand (“Water NZ”) appreciates the opportunity to provide a submission on the Draft National Environmental Management Plan for PFAS (per- and poly-fluoroalkyl substances) Version 3.0.
2. Water NZ is a national not-for-profit organisation which promotes the sustainable management and development of New Zealand’s three waters (drinking water, wastewater and stormwater). Water NZ is the country’s largest water industry body, providing leadership and support in the water sector through advocacy, collaboration and professional development. Its ~3,000 members are drawn from all areas of the water management industry including regional councils and territorial authorities, consultants, suppliers, government agencies, academia and scientists.
3. Water NZ notes that some of its members will be making their own submissions on the Draft National Environmental Management Plan for PFAS and these submissions are intended to complement each other.

Commentary on the wider PFAS situation in New Zealand

4. The NEMP is an Australian and NZ document that refers to Australia’s commitments and requirements, with little regard for the New Zealand context.
5. There is no national or collective information on background levels or on trends and concentrations in the broader New Zealand environment.
6. Water NZ would welcome national research to understand the size, scale and relationship of the PFAS challenge. Ongoing research needs to inform management approaches and the mandating of expensive monitoring.
7. As well as the lack of understanding of the problem, the Water NZ has concerns around the consultation in New Zealand.
8. Ministry for the Environment (MfE) and Environmental Protection Agency (EPA) are the lead agencies for the NEMP consultation in New Zealand. However, there was no proactive engagement from either department. Engagement (webinars) that have occurred have been initiated by Water New Zealand (and other industry bodies). This is

stark contrast to the engagement undertaken by MfE on National Environmental Statements for Source of Human Drinking Water.

9. We urge the Government to undertake considerably more investigation into PFAS in the Aotearoa New Zealand context, and to undertake proactive engagement with the various industries involved.
10. If we all work together, we can make the biggest possible difference for managing PFAS in our environment. All stakeholders, including the Government, industry, local government, iwi/hapū and landowners, will be essential to mitigating the damage to our environmental, economic, cultural and social wellbeing.

COMMENTS ON SPECIFIC SECTIONS

11. Water NZ wishes to make a number of comments on specific sections in the discussion document.

Section 5 Monitoring of PFAS

12. There is limited information on PFAS in the New Zealand environment. While there have been several incidents throughout New Zealand where PFAS monitoring and evaluation has occurred these have mostly been limited to New Zealand Defence Force sites. Ongoing research into the sources and trends is needed to understand the implications and management in New Zealand.
13. New Plymouth District Council reuses wastewater sludges, through production and sale of a fertiliser product, Bio-Boost. To this end they have begun screening PFAS in the sewage network and some industrial customer sites. Their aim is to identify point sources that may be able to be eliminated or reduced through Trade Waste Consents. As early adopters of PFAS screenings in New Zealand wastewater networks there are lessons to be learnt from New Plymouth District Council.
14. There is no national collective information and trends for concentrations of PFAS in drinking water, wastewater (influent or effluent), stormwater or biosolids. International research indicates that monitoring in wastewater produces variable results which may not predict health or environmental impacts.
15. Water NZ do not believe it should be the responsibility of territorial authorities to collect, interpret or fund this investigative work. Such an approach risks inconsistent analysis and would likely have little or no direction or understanding of purpose. Until there is an understanding of the PFAS risks posed by three water services, the Government should lead and fund research.
16. Water NZ **recommends** that a national database is established for PFAS monitoring to understand what the background levels are. This information must be used to develop a national guidance and monitoring programmes that are able to be delivered locally.
17. We strongly encourage the Government to increase the funding available to understand any potential PFAS challenge and to develop a national testing regime-.
18. The NEMP is an Australian and New Zealand initiative. However, the NEMP often refers only to Australia's commitments and requirements. Water NZ **recommends** a section for NZ commitments and requirements is added to the document.

Section 8 Guidelines Values

19. Although the NEMP is an Australian and NZ initiative the NEMP mainly refers to Australian Water Quality and Environmental documents.
20. Water NZ **recommends** a section for NZ Water Quality and Environmental documents is added to the document.

Section 12.4 Organic Waste and Resource Recovery Materials

21. Water NZ supports the intent of this section with regards to understanding the extent of PFAS being applied to land via biosolids or compost.
22. In the transition to a low carbon, circular economy there is increasing interest and mandate in the beneficial re-use of organic material. Increasing the understanding of PFAS in green, food, and animal wastes in the New Zealand context is important.
23. Water NZ **recommends** that a national testing regime be developed for the water sector as well as for the green, food and animal waste sectors.
24. We are aware that the Australia and New Zealand Biosolids Partnership has already proposed some PFAS limits. Their limits are more enabling for the beneficial reuse of biosolids.
25. Water NZ **recommends** that clarification is provided on the research basis for the PFAS limits proposed by Australia and New Zealand Biosolids Partnership (ANZBP) and that the ANZBP be engaged in reconciling these values.
26. This is especially relevant for *NZS 4454:2005 Composts, soil conditioners and mulches*, the Biosolids Guidelines (2003) and the work in progress draft update Guidelines For Beneficial Use Of Organic Materials On Land.

Section 12.5.1 Management of PFAS Contaminated Construction Water

27. This section requires the education of the construction sector regarding PFAS contaminated water. It also requires that local and regional councils be aware of any PFAS risk in discharges from construction sites to piped networks or waterways.
28. Water NZ **suggests** MBIE and MfE develop guidelines with the construction sector so that they are aware of their responsibilities with regards to PFAS.

Section 15.1 PFAS Management Framework (Wastewater)

29. The changes to this section include an environmental regulator for the PFAS Management Framework for wastewater.
30. From October 2023, the water services regulator Taumata Arowai are responsible for monitoring and reporting on the environmental performance of wastewater services. Regional councils will remain responsible for regulation, compliance and enforcement of freshwater, waste, coastal waters and soil quality. With Taumata Arowai having oversight and reporting responsibilities to Ministry of the Environment on the environmental performance of wastewater networks.
31. Water NZ are concerned there is a risk that the environmental regulators in New Zealand are unaware of their pending responsibilities. They are likely to have

difficulties implementing an environmental management framework without sufficient information on concentrations and trends of PFAS in New Zealand.

32. Our Section 5 **recommendations** are relevant here.

Section 15.2 Additional Management Tools (wastewater)

33. Trade waste discharges into the wastewater network could be a source of PFAS. Water New Zealand is not aware of many local authorities in New Zealand that are currently monitoring PFAS concentrations in trade waste discharges.
34. We **suggest** a review of the *NZS Model general bylaw - Trade waste (NZS 9201.23:2004)* would be a simple and convenient way to achieve this. A review could coincide with the implementation of the trade waste plan provisions in the Water Services Legislation Bill.
35. To establish an efficient trade waste monitoring regime will require several agencies involvement to grow skills and capability to develop monitoring regimes and policies around consenting and management.
36. Under the Water Services Entity Act 2022 the new water services entities will have the mandate and capability to manage trade waste via plans and permits. Regional authorities (either inhouse or through consultancy services) will need to understand source and environmental risks of PFAS in trade waste as consent authority under the current Resource Management Act.
37. For a truly effective PFAS- trade waste management system it will require Government support and leadership to ensure a nationally consistent approach and a framework to understand PFAS pollution (diffuse or otherwise) and how PFAS can be monitored and controlled.
38. Again, our **recommendations** in Section 5 are relevant here.

Section 15.4.1 Characterisation of Biosolids

39. This section recommends that biosolids are characterised for the full suite of analytes included in the standard methods as described in Section 19.
40. Water NZ understands the requirements for this and supports the recommendation. However, hardly any sampling of biosolids for PFAS concentrations is undertaken now. Discharge consents for biosolids are the regulatory instrument for specifying monitoring requirements.
41. PFAS biosolids monitoring will need to be introduced over time to incorporate this recommendation as new consents are issued.
42. To make this change to existing consents could require notified consent changes and a significant cost to the local authority. It is also considered unworkable as the monitoring regime required to underpin consent conditions is not understood.
43. Water NZ **recommends** such a monitoring, and consenting regime is incorporated through the development of the National Planning Framework via the Natural and Built Environment Bill under the resource management reforms. This will allow national consistency in risk, approach and consenting.

Section 15.4.2 Details of proposed land application and characterisation of in-situ soils

44. Land application of biosolids provides a range of beneficial environmental outcomes; reducing pressure on landfills, reducing the need for imported fertilisers, and sequestering carbon. In New Zealand treated wastewater disposal to land is culturally more appropriate.
45. The practice for application of biosolids to land in Australia, and Netherlands and America, for example, is to incorporate (by ploughing or ripping) the biosolids into the soil. This mitigates any effects of airborne exposure from biosolids aerosols. In New Zealand, the typical application method is to apply the biosolids directly onto land.
46. Water NZ **recommends** the NEMP be updated to allow for the different but effective good practice biosolid application methods that occur globally.

Section 15.4.3 Criteria

47. This section discusses key exposure pathways to be considered to derive risk based criteria. Table 11 of this section shows criteria for PFOS+PFHxS and PFOA (perfluorooctanesulfonate + perfluorohexane sulfonate and perfluorooctanoic acid) in biosolids and maximum allowable soil contaminant concentrations (MASCC) based on a 1, 2 and 5-fold margin of safety. It is not clear how the margin of safety would be applied and under what circumstances.
48. Water NZ request clarification and guidance of how the margin of safety is to be applied.

Supporting documentation

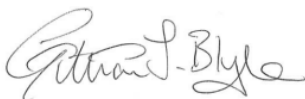
49. Our members have concerns with the supporting documentation, including but not limited to Summary of the PFAS Biosolids HHERA (Human Health and Ecological Risk Assessment), Soil Trigger Values and Application Rates.
50. The supporting documentation gives examples and methods for application of PFAS containing substances based on acceptable methods, rules and regulations from Australian EPAs e.g. New South Wales and Queensland.
51. They suggest unrestricted use biosolids can be applied to soil, with no incorporation, as there are no limits on land application rates. It appears that all biosolids can and are used to form a topsoil. They do not allow for differences between different biosolid products or different uses or limits on application rates. While these are applicable to Australia, Water NZ believes that they are not applicable for New Zealand application of biosolids.
52. Water NZ **recommend** the criteria for unrestricted use biosolids be amended to allow for differences between biosolid product, different application methods, and for different environmental contexts.
53. We **recommend** the supporting documentation be updated to include acceptable methods, rates, rules and regulations for application of PFAS containing substances that fit with the New Zealand context.

NEMP sets out a resource-intensive approach

54. Water NZ note the considerable capacity and capability pressures to deliver the NEMP, and the significant increase in skilled resource required for compliance and monitoring. With the complexities of monitoring within media such as wastewater and the expense of regular drinking water monitoring we believe there will be a shortage of suitably qualified laboratory staff, environmental experts and process engineers to undertake reporting for guidelines, management frameworks and consenting requirements.
55. Water NZ **encourages** the Government to work closely with ourselves, the tertiary sector, public health experts and other adjacent member bodies including IANZ (International Accreditation New Zealand), Engineering NZ, Association of Consulting Engineering (“**ACE New Zealand**” and the Institute of Public Works Engineering Australasia (“**IPWEA**”)) to put in place the support necessary for the expansion of the sector to ensure the PFAS challenge can be understood and managed proficiently.

CONCLUSION

56. Water NZ generally supports the majority of amendments made to the draft NEMP. The Australian Environmental Protection Agency (EPA) has completed a lot of work in this area involving many different disciplines to produce a management plan for a substance that is ubiquitous in manufacturing processes.
57. Water NZ thanks the Australian and the NZ EPAs for the opportunity to provide comments on the draft NEMP PFAS Version 3 and welcomes discussion on any of the points raised in our submission.



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