



QUEENSLAND FARMERS' FEDERATION

Primary Producers House, Level 3, 183 North Quay, Brisbane QLD 4000
PO Box 12009 George Street, Brisbane QLD 4003
qfarmers@qff.org.au | 07 3837 4720
ABN 44 055 764 488

Submission

31 May 2019

National Chemicals Working Group (NCWG)
of the Heads of EPAs Australia and New Zealand

Via email: PFASstandards@environment.gov.au

Dear Sir/Madam

Re: Consultation on Draft of Version 2 of the PFAS National Environmental Management Plan

The Queensland Farmers' Federation (QFF) is the united voice of intensive, semi-intensive and irrigated agriculture in Queensland. It is a federation that represents the interests of peak state and national agriculture industry organisations, which in turn collectively represent more than 13,000 farmers across the state. QFF engages in a broad range of economic, social, environmental and regional issues of strategic importance to the productivity, sustainability and growth of the agricultural sector. QFF's mission is to secure a strong and sustainable future for Queensland farmers by representing the common interests of our member organisations:

- CANEGROWERS
- Cotton Australia
- Growcom
- Nursery & Garden Industry Queensland (NGIQ)
- Queensland Chicken Growers Association (QCGA)
- Queensland Dairyfarmers' Organisation (QDO)
- Australian Cane Farmers Association (ACFA)
- Flowers Australia
- Pork Queensland Inc.
- Queensland United Egg Producers (QUEP)
- Queensland Chicken Meat Council (QCMC)
- Bundaberg Regional Irrigators Group (BRIG)
- Burdekin River Irrigation Area Irrigators Ltd (BRIA)
- Central Downs Irrigators Ltd (CDIL)
- Pioneer Valley Water Cooperative Ltd (PV Water)
- Theodore Water Pty Ltd.

QFF welcomes the opportunity to provide comment on the consultation draft (Version 2) of the PFAS National Environmental Management Plan. We provide this submission without prejudice to any additional submission from our members or individual farmers.

The united voice of intensive agriculture



Background

In Australia, per- and poly-fluoroalkyl substances (PFAS) have been used for a long time in both consumer products and industrial applications and there are now PFAS contaminated sites resulting from these various uses, including from the use of firefighting foams that contained PFAS. Over time, the chemicals have worked their way across and through the soil to contaminate surface and groundwater and have migrated into adjoining land areas. PFAS are also present in our landfills and wastewater treatment facilities and more broadly in the environment. However; where, and at what concentrations is not well understood.

QFF understands that the consultation scope is restricted to the significant updates (shown in the draft document in yellow highlights).

Feedback

PFAS are a group of ‘emerging contaminants’ that, due to their chemical structure are resistant to biodegradation, atmospheric photooxidation, direct photolysis, and hydrolysis. PFAS are added to reduce the surface tension of various substances, which can also enhance their mobility in the soil and, as a consequence, increase the speed at which these compounds reach the groundwater (faster than any other hydrocarbon contaminants).

The persistence of PFAS in the environment, their surfactant properties and their moderate solubility means that they can be transported over long distances and effectively transfer between different media.

This current consultation draft unfortunately did not focus on the length of the Poly Fluorinated Compounds (PFC), which is a critical consideration as short chains are highly mobile (including in groundwater), while long chains have higher potential of bio-accumulation and sorption.

This draft considered the ‘re-use’ of PFAS in solid materials such as soil. Soil is a complex matrix which is more complicated than a water or liquid environment. The PFAS NEMP must take this into account. As texture and organic matter content are critical factors affecting the containment or transfer of these organic pollutants, so the soil or solid material must be divided as ‘Heavy’ and ‘Light’ texture within the range of Organic Matter.

The type of plant or crop is important as some types of crop are counted as hyper or low accumulation and they may adsorb PFCs. In the absence of clear identification of PFC chains, soil texture, or organic matter, it may be problematic for farmers to beneficially use or re-use these materials (such as biosolids) in their soils. These are basic properties that must be accounted for across the Environmental Values within the plan.

QFF acknowledges the issues detailed in the ‘Risk Sources’ section (5.1, page 90), noting that it is easier to control the pollution at source rather than once distributed through another media. However, this raises concerns regarding the continued, permitted import and use of PFAS substances in Australia. This is despite recommendations from the Australian Government stating that “analysis suggests that ratification of the Stockholm Convention listing of PFOS and banning of all non-essential uses of PFOS would deliver the greatest net benefit to Australia”¹, acknowledging that this does not cover all PFAS materials.

Biosolids contain useful quantities of organic matter, and nutrients such as nitrogen (N), phosphorus (P) and potassium (K), and lead to improvements in soil characteristics such as improved microbial activities and oxygen consumption. They are an appropriate beneficial use of a resource, closing the ‘nutrient

¹ Australian Government (2017). National phase out of PFOS Ratification of the Stockholm Convention amendment on PFOS: Regulation Impact Statement for consultation. Department of the Environment and Energy. October 2017. See Regulation Impact Statement summary, p3.

loop'. In the face of declining stocks of inorganic (rock) phosphate, biosolids will become an increasingly important source of fertiliser for the agricultural sector.

Queensland example

The End of Waste Framework provisions are contained under Chapter 8 and Chapter 8A of the *Waste Reduction and Recycling Act 2011* and aims to promote resource recovery opportunities and to transform the perception of waste from being waste to being valued as a resource.

The Queensland Government is currently reviewing its End of Waste Code for Biosolids. However, an early draft highlighted the confusion and interpretative differences between biosolids applications to land and biosolids use in composting.

The draft Code originally proposed testing requirements specifically for Total Organic Fluorine (TOF), related to the concerns around PFAS, reducing the required quality parameters from 19 to 16 (removing testing of Heptachlor, HCB and BHC). However, the reduction of TOF from 0.39mg/kg to 0.005mg/kg (a factor of 78 times reduction in limit) for maximum allowable soil concentrations is not appropriate and would immediately preclude the beneficial use of biosolids in agriculture.

For soils that already have PFAS contamination, which is widely unclassified and unknown, the low limit would have immediately excluded the use of biosolids on this land. Research has identified background levels of PFAS, particularly in agricultural soils adjoining development sites (commercial and housing) or where bushfires have occurred. The Queensland Government has acknowledged that 'PFAS are commonly found in the environment at low levels due to their wide-spread use in consumer and speciality products over many decades'.

Given the inadequacy of research and data in this area it is unlikely that biosolids will meet Grade A or B contaminant grade originally proposed by the Queensland Government. QFF has been advised by ALS Laboratories that their limit of detection for TOF is 0.05mg/kg – ten times higher than the proposed initial limit resulting in all biosolids and soils considered to be in excess of the TOF limit even if there is no actual fluorine present.

In contrast, biosolids sent for co-composting may be subject to Environmental Authority conditions (under Queensland's *Environmental Protection Regulation 2008*) which do not require the testing for PFAS and upon cessation of the composting process only have to meet Australian Standard 4454 which does not include testing requirements for these compounds.

QFF continues to work with the Queensland Government to find a workable solution to beneficially use biosolids and composts in agriculture as appropriate. However, it is QFF's position that the control of pollutants must be at point source (import and use, and discharge to sewer) rather than allowing the contamination of a large volume of beneficial resource which is becoming increasingly vital to restore soils and soil nutrients. This is simply dilute and disperse.

QFF also notes that whilst Perfluorooctane sulfonate (PFOS) and Perfluorooctanoic acid (PFOA) have not been banned in Australia, but rather phased-out and replaced by 'newer' chemicals with increased degradation times, we must be vigilant to ensure that these new compounds and their intermediary products do not adversely impact human and environmental health. If there are any queries on this submission, please do not hesitate to contact Dr Georgina Davis at georgina@qff.org.au

Yours sincerely

Travis Tobin
Chief Executive Officer