



QUEENSLAND FARMERS' FEDERATION

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Submission

29 November 2018

Mr Jamie Merrick
Director-General
Department of Environment and Science
400 George Street
BRISBANE QLD 4000

Via email: ISRS.Consultation@des.qld.gov.au

Dear Mr Merrick

Re: Draft End of Waste Code Biosolids (ENEW07359617)

The Queensland Farmers' Federation (QFF) is the united voice of intensive 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 primary producers 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)
- Flower Association
- Pork Queensland Inc.
- Queensland United Egg Producers (QUEP)
- Bundaberg Regional Irrigators Group (BRIG)
- Burdekin River Irrigation Area Irrigators Ltd (BRIA)
- Central Downs Irrigators Ltd (CDIL)
- Pioneer Valley Water Cooperative Ltd (PV Water)
- Queensland Chicken Meat Council (QCMC).

QFF welcomes the opportunity to provide comment on the Draft End of Waste Code Biosolids. QFF provides this submission without prejudice to any additional submission provided by our members or individual farmers.

The united voice of intensive agriculture



Background

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 seen as waste to being valued as a resource. This framework replaced the Beneficial Use Approval (BUA) framework on 8 November 2016.

Under the transitional provisions in the legislation, resources approved under an existing general BUA or a specific BUA issued prior to 8 November 2016 can continue to be used as a resource for the uses specified under those approvals until the end of the approval period for the BUA (the period specified in the relevant Notice).

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

No Consultation with End Users

QFF notes that the consultation document is dated 19 October with submissions due 29 November 2018. The expiry of the existing BUA for Biosolids is imminent (31 December 2018), and QFF critically questions if the department has managed enough time for adequate consultation with end users and the necessary amendments to be made to the draft Code given the impending government shut-down period over Christmas?

The consultation period has been particularly rushed, given that the agricultural sector (the end user) of the resource has NOT been included on the Technical Advisory Panel for the draft End of Waste Code for Biosolids or in any direct consultation by the department.

Following approaches by other panel members, QFF raised concerns directly with the department in May 2018 that end-users were not included in the development of the draft Code (by email and phone messages). The department failed to respond to QFF or the concerns raised.

It is disappointing that the department did not seek to develop the draft Code with input from the end-users of the biosolids product and this is obvious in the document's naivety and lack of knowledge pertaining to existing on-farm management processes and agricultural requirements.

QFF has been actively engaging with researchers with regards to biosolids including the University of Queensland to explore technologies and pre-treatment processes to improve handling and agronomical outcomes. And with Griffith University in its capacity to identify emerging contaminants and develop new treatment processes for those contaminants.

QFF has also supported the development of a funding application for the Biosolids Industrial Transformation Training Centre which will strengthen the capabilities of industries and other research end-users in identified Industrial Transformation Priority areas including PFOS and PFAS research and which seeks to drive growth, productivity and competitiveness by linking to key growth sectors. The Queensland agricultural sector recognises the benefits and the potential and emerging risks associated with the application of biosolids to land and has been actively supporting research and seeking solutions to maintain and build on positive environmental outcomes.

Characterisation of Biosolids as a Resource

One of QFF's most critical concerns with the draft Code is the point of determination for the biosolids to be classed as a resource (as opposed to a regulated waste). Under the draft Code, biosolids only become a resource after they have been thoroughly characterised and tested for contamination; a process that

can take weeks or months to complete, leaving ambiguity about the handling, transport and storage of the biosolids (as a regulated waste and therefore additional licencing required) prior to any beneficial applications. Defining biosolids as a resource after testing is also problematic in practice as this would not reflect the true nature of the biosolids when they are used in agricultural operations. Testing at the treatment plant will not consider processing (composting to pelletising) that occurs afterwards and may not accurately represent final levels of nutrients or contamination. As such, the quality of biosolids at the treatment plant should not be a defining factor for their classification as a resource.

The draft Code proposes 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, the low limit will immediately exclude 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 *'PFASs 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.

QFF has been advised by ALS Laboratories that their limit of detection for TOF is 0.05mg/kg – ten times higher than the proposed limit resulting in all biosolids and soils considered to be in excess of the TOF limit even if there is no actual fluorine present.

Land Application – Buffers and Pre-Treatment

The draft Code proposes a buffer zone requirement for the distance to surface waters of 200 meters in flat areas (previously 50m in the BUA), 200 meters on downslopes (previously 100m in the BUA) and 200 meters (previously 5m) on upslopes. These changes proposed in the draft Code will reduce the amount of agricultural land that may accept biosolids for beneficial use, with no regard to specific on-farm conditions on the day of application. QFF notes that farmers must comply with their General Environmental Duty under the *Environmental Protection Act 1994* and that they are best placed to determine suitable areas of land application.

QFF notes that the draft Code no longer includes provisions for land injection and questions why this and other measures have been removed. One of the research options currently being investigated is the pelletisation of biosolids which may be ripped into the soil at root depth. It is essential that the Code is not overly prescriptive and does not impede the adoption of future pre-treatment or on-farm new technological improvements.

The Department states that the *'EOW codes are outcome-focused. They specify outcomes that need to be achieved in order for a waste to be deemed a resource'*. In the case of this draft Code, it is difficult to determine how it is outcomes focused – particularly when the level of prescription is overly bureaucratic.

QFF acknowledges that future research and regulatory assessment/conditioning must consider long-term impacts as well as immediate environmental risks. All stakeholders must continue to be vigilant to monitor and determine the significance of emerging organic contaminants (namely PFOS, PFOA and PCAs) in biosolids. Research is essential for ensuring the long-term sustainable agricultural use of biosolids and in compost manufacture; whereas mitigating the risks of individual contaminants will require a range of possible policy, industry and consumer responses. However, a reactionary approach which will lead to the immediate (from 31 December 2018) cessation of biosolids application to agricultural land with no alternative solutions other than disposal is not appropriate.



In summary, QFF does NOT support the draft End of Waste Code for Biosolids (dated 19 October 2018) and seeks an immediate extension to the existing BUA for Biosolids for a further six months (to 1 July 2019) so that a new or significantly amended Code may be developed.

If you have any queries regarding this submission, please do not hesitate to contact Dr Georgina Davis at georgina@qff.org.au.

Yours sincerely

Travis Tobin
Chief Executive Officer