

General/overall comments
Sydney Water strongly supports Option 4 as the most suitable and cost-effective solution to protect the environment and public health. Options 2 and 3 have substantial unidentified costs to the water and wastewater industries.

Executive Summary		
Section	Page No.	Comment
Executive Summary	2	Clarification is required on what the paper is addressing. PFOS, PFOA and all other associated chemicals are referred to as PFASs. When you refer to PFOS in this document, is the intention to phase out all PFASs?
		Should it be noted that Australia is one of only a handful of countries (along with mostly developing nations like Bangladesh and Haiti) that have not yet ratified this amendment?
The Problem	4	The proposed solution (Option 4) has the advantage of knowing that the future state will improve by phasing out non-essential imports (essential uses can be controlled). This is particularly important for a chemical that bioaccumulates up food chains and has a half-life of 42 years (even longer for some of the other PFAS salts).
Option 2	5	The certification would only be as good as the controls in place. This may result in significant costs for water utilities eg demonstrate that biosolids for land application (100%) does not impact on crops for export.
		It may be difficult to detect incident releases unless proactively disclosed.
Option 3	6	The certification would only be as good as the controls in place. This may result in significant costs for water utilities eg demonstrate that biosolids for land application (100%) does not impact on crops for export.
Option 4	6	Need more information if there are alternatives to these 'essential' uses. If there are no alternatives then more detail is needed on how these wastes will be managed. They still pose a risk even if they are essential and current management practices are not sufficient.
Impact analysis	7	As 99% of the PFOS imports are used in the metal industry for the prevention of misting and are important for worker safety, the transition must include the mechanism for closed loop management for all existing PFOS users.
	7	The non-quantified benefits may be considerably larger than thought due to the disconnect with current and future impact as the chemical can bioaccumulate up food chains (bioaccumulation takes time, not much testing (low detectability) and routing through wastewater or stormwater systems can separate impact from source location).
	8	Option 4 provides highest benefit for lowest cost, AND also provides the greatest certainty of environment and health protection.
	8	The other options also provide an larger regulatory burden on water utilities and those that manage stormwater.
	8	Option 2 and 3 would increase auditing requirements by wastewater and stormwater utilities to ensure these systems were not being used as disposal routes.
Consultation	9 (1)	Chain of custody for PFOS laden wastewater with requirements to discharge to liquid transfer centers that specifically treat PFOS through granulated activated carbon to a high standard. National acceptance standards to sewer should be agreed upon to ensure that wastewater overflows, effluent and biosolids are not contaminated.
	9 (2)	In regards to analytical costs and methods, there are many types of PFAS salts, so which do we test for? The costs are substantial (\$250-400 per sample).

	9 (4)	For open-loop, will require management of discharges to sewer to ensure the water utilities do not inherit the risk. Few utility treatment plants would treat for PFOS. This information would assist in identifying potential hotspots and existing but unknown contaminated lands.
	9 (8)	PFOS is rarely tested for as there is no current regulatory requirement in NSW and the guidelines are unclear. Options 1, 2 and 3 would require substantial monitoring to understand the risk from undisclosed sources. Would need to establish background levels as well.
Main report		
1.1 Purpose	14	In reference to the point 'Although there are no proven health effects, it is possible that PFOS exposure could affect human health', the USEPA released proposition 65 (California) on 10 November 2017 stating that there is evidence that PFOS causes developmental toxicity.
	15	What regulations are in place for industry using PFOS that are connected to the sewer – Are these closed-loops and regulated by the EPA or are they permitted to discharge to sewer and regulated through Trade Waste agreements?
2.1	19	Need to clarify in this section if the phase out is only related to PFOS (not all PFAS's) and why. If PFOS is phased out, but not other PFAS derivatives, industry may turn to other PFAS alternatives to meet their requirements. There may be unknown risks associated with this that have not been identified?
2.5.3 Fire Fighting	41	There is the potential that older stores (higher concentration) of PFOS may be contained in old sprinkler systems.
	42	The PFOS type used may vary between state and federal facilities with state ones requiring the less concentrated form.
5.3.1	78	With no policy intervention, Option 1 has the risk of increased imports of PFOS from countries where PFOS has been banned. Australia could become a dumping ground to get rid of excess PFOS supplies.