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21 February 2019

Dr Tom Hatton  
Chairman  
Environmental Protection Authority Services  
Locked Bag 10  
EAST PERTH WA 6892

Dear Dr Hatton,

**Tim's Thicket Liquid Waste Facility Upgrade (Assessment 2124) - Section 43A Application - Change to Proposal**

The City of Mandurah (the City) submitted a Referral to the Environmental Protection Authority (EPA) under Section 38 of the *Environmental Protection Act 1986* (EP Act) on 13 March 2017 regarding the Tim's Thicket Liquid Waste Facility Upgrade (the Project).

The objective of the Project was for the City to recommence the acceptance of liquid waste at the Tim's Thicket Waste Facility (the Site) via a suite of proposed improvements including the installation of new or refurbishment of existing infrastructure and the remediation of any potentially contaminated areas.

The Project included the replacement of existing pond liners, the installation of an upgraded wastewater treatment system and an irrigation field for the disposal of treated waste water. The upgrades associated with the Project would ensure that the Site is suitable for accepting liquid waste for the next 15 to 20 years.

Subsequent to the Referral, the Department of Water and Environment Regulation (DWER) requested a suite of additional information from the City as well as attending the Site for a visit to assist in contextualising the submission. Further to this, when the Referral was advertised for public comment it became apparent that there was some significant community concern regarding the location of the proposed irrigation field.

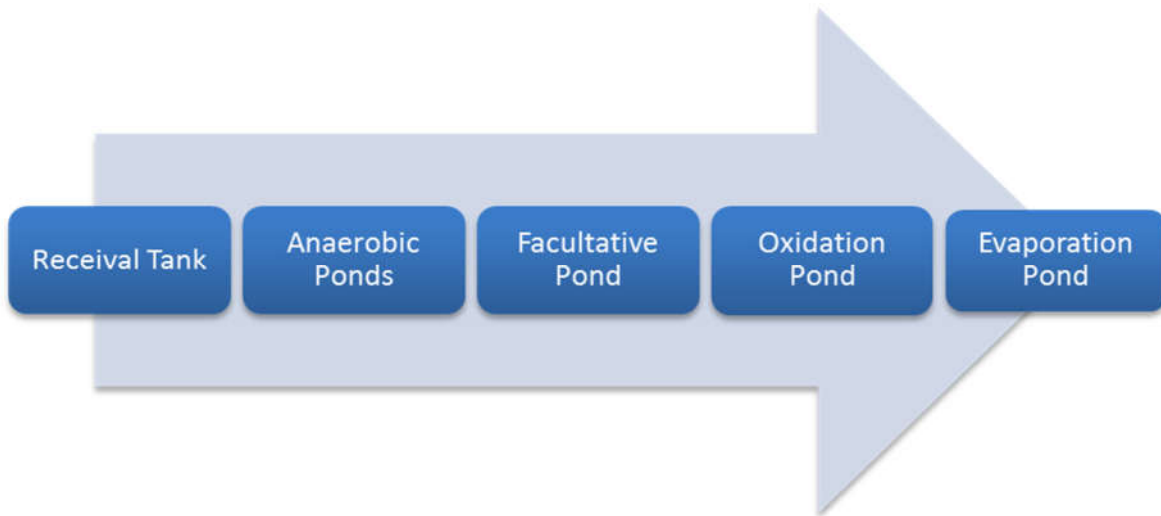
Due to the aforementioned community concern and based on detailed discussions with both the DWER and the community, the City now wishes to amend the referred proposal as per Table 1 and Figure 1 below. Key changes include:

- Replacement of the irrigation field with an evaporation pond; and
- New anaerobic ponds to be constructed that will be double lined with leak detection.

**Table 1: Tim's Thicket Liquid Waste Facility Upgrade - Summary of S43A Changes**

Aspect of Project	Original Referral (March 2017)	S43A (this proposal)
Receival Area	Upgrade and recommission existing area	No change (as per March 2017 referral).
Anaerobic Ponds	Recommission all three ponds with a new 1.5 mm HDPE liner.	All three ponds to be reconstructed with a primary 2 mm HDPE liner, leak detection layer and a secondary 2 mm HDPE layer (double lined with leak detection).
Balancing Pond (formerly Oxidative Pond)	Recommission with new 1.5 mm HDPE liner. Base of pond with a limestone layer over geotextile.	New Facultative Pond with increase in size, fitted with a 2 mm HDPE liner, base of pond featuring a limestone layer over geotextile.
Biological Nutrient Removal Plant	Plant to reduce biological sludge volumes and total N and P.	Not required.
Storage Pond (formerly Facultative Pond)	Recommission with new 1.5 mm HDPE liner. Base of pond with a limestone layer over geotextile.	New Oxidation Pond constructed at a north-south orientation, fitted with a 2 mm HDPE liner, base of pond featuring a limestone layer over geotextile.
Drying Pad	Extension of existing pad to better facilitate drying of sludge.	No change (as per March 2017 referral).
Irrigation Field	Polishing of treated wastewater by irrigation of an area of approximately 1.3 ha, including a 0.11 ha Vetiver Grass System.	Not required - replaced with an Evaporation Pond fitted with a 2 mm HDPE liner.
Green waste processing	Not included.	Hardstand area within landfill area for the dumping, processing and removal of green waste.
Development Envelope	Extension to accommodate irrigation field.	Extension for Irrigation Field not required.

Figure 1: Tim's Thicket Liquid Waste Facility Upgrade - process flow diagram



An updated Supporting Document is attached to outline the Proposal incorporating the details described in Table 1.

I trust this information is sufficient to allow the assessment to proceed. If you have any additional questions or require further clarification, please do not hesitate to contact me.

Yours sincerely

Andrew Mack  
Associate Director / Environment Section Leader

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Att.: Tim's Thicket Liquid Waste Facility Upgrade - Supporting Document (February 2019).