City of Bayswater

Supplementary Information

Special Council Meeting

Wednesday 11 December 2024

Contents

Addendum - Item 8.1 - Tender 22 - 2024 Maylands Lakes Water Treatment Facility

ADDITIONAL INFORMATION

The majority of submissions received did not fully address a number of key requirements and a significant number of exclusions are noted within the submissions:

Exclusion	Altrum	RAPAW
Approvals	Planning development and Building application responsibility passed onto the City. Additional approval likely required from DPLH and DBCA noting the site as Crown Land. Approvals will also be likely required from Western Power, Water Corp and Dep Water and Environment Regulation. Timeframe unknown	Planning development and Building application responsibility passed onto the City. Additional approval likely required from DPLH and DBCA noting the site as Crown Land. Approvals will also be likely required from Western Power, Water Corp and Dep Water and Environment Regulation. Timeframe Unknown
Site Location	Noted as possible next to Maylands Golf Course retic pond and pumps. Access and impact to be determined. Access will be required for service, maintenance, waste disposal. May impact adjoining shared path access. May impact surrounding trees / habitat requiring removal. Unit size 28m x 8m.	No location proposed / identified (TBC). Noted 2 x 40 foot container size equivalent. Access will be required for service, maintenance, waste disposal. May impact adjoining shared path access. May impact surrounding trees / habitat requiring removal.
Site Layout	Lake Brearley only with future provision to service Lake Bungana. Mostly surface pipe lay across site and to lakes.	Both Lake Brearley and Lake Bungana. Site location and system layout to be determined.
Utility Supply – Water, Electricity, Sewer	Onus on City to arrange service supply and connection. Electricity – Min 75Amps required. Will require new site main switch board and possible Western Power site supply upgrade, or a mobile generator to service the site. Water supply volume not specified. Sewer waste disposal requirement / volume not specified. Likely commercial waste disposal license required.	Onus on City to arrange service supply and connection. Electricity requirements not specified. Water supply volume not specified. Sewer waste disposal requirement / volume not specified. Likely commercial waste disposal license required.
Design and Set Up Time	8 – 12 Months subject to approvals	4 Months subject to approvals
Outcomes / Proven Capability	Evidence of water quality outcomes provided. One example of using the process for the specified purpose provided.	Minimal evidence provided. No examples provided of how the proposed system has been used for the specified purpose.
System Maintenance and Servicing	Minimal information provided for system service for mechanical breakdowns / product warranty.	Minimal information provided for system service for mechanical breakdowns / product warranty.

Solutions Offered

Altrum Technology Solution:

- Dissolved Air Flotation (DAF)

Dissolved air flotation is a water treatment process that clarifies wastewater by removal of suspended solids, oils, greases, BOD, COD, and metals. This is achieved by dissolving air in the wastewater under pressure and then releasing the air at atmospheric pressure in a flotation tank. The released air forms tiny bubbles which adhere to the suspended matter causing it to float to the surface of the water where it can then be removed by a skimming device, ready to dewater for proper disposal. To improve solids removal coagulant/flocculants are added to coax suspended solids and colloidal particles into clumping together.

RAPAW Technology Solution:

- Mixed Media Filtration using Anthracite and activated carbon.

A mixed-media filtration system consists of layers of granular media each progressively sized in coarseness and layer depth. The coarsest material lies at the bottom while the finer material sits at the top. Typically the layers are garnet, sand, and anthracite and used to reduce the SDI (Silt Density Index) and TSS (Total Suspended Solids) of water. Suspended solid contains small particles like silt, clay, organic matter, algae, and microorganisms.

GHD Technical Memorandum

A confidential technical summary can be found in **Confidential Attachment 1** to this addendum.

The full report from GHD is available in **Confidential Attachment 2**.

Recommendation Implications

In light of the above, the officer's recommendation remains unchanged.