



3 April 2023

Mr. J. Philips
Chester Consultants Limited
Level 1, Chester Building
28 The Warehouse Way
Northcote
AUCKLAND 0627

By email: jenner@chester.co.nz

Dear Jenner

MANGAWHAI HILLS WASTEWATER TREATMENT PLANT – REVISED STAGE 1 PROPOSAL

Further to our EOI submitted in January, we are pleased to provide information for a wastewater treatment plant to serve an initial 50 houses at Mangawhai Hills. This is offered on the following basis:

Information Basis

- 50 houses, with an occupancy 3 people per house
- Allowance of 180L/person/day
- This provides an initial wastewater volume of 27,000L/day

Treatment targets are:

- 5mg/L cBOD₅
- 5mg/L TSS
- 10mg/L TN
- 5mg/L TP
- 100CFU/100mL *E. coli*

Stage 1 Wastewater Treatment Plant

To reduce the up-front costs of wastewater services for the development, we offer a sequencing batch reactor (SBR) treatment plant that will utilise plant that will be repurposed as a membrane bioreactor (MBR) in the future. This initial plant will include the inlet works (screening), partially-buried concrete treatment tanks, a small plant room to house the electrical control panel and other key equipment, and an electrical control panel with sufficient internal space to allow the installation of additional equipment in the future.

An *indicative* photo for the plant is provided overleaf, showing a small plant room, chemical storage and dosing, treatment tanks and a screening unit.



Budget Price

Our budget price, to an accuracy of $\pm 10\%$, is \$515,000+GST.

This budget price includes:

- Detailed design, project management, construction, commissioning and operator training
- Provision of full as-built information
- Preliminary and general
- HSNO certification
- Supply of all equipment, including pumps, valves, instruments and tanks
- Civil works, including partial burial of treatment tanks and concrete plinths
- Erection of a small plant room
- Electrical installation and automation
- Mechanical installation and plumbing

This budget price excludes:

- Site surveying and geotechnical investigations
- Obtaining resource consents for the discharge to land (and to air, if required)
- Landscaping, site fencing and construction of access roads
- Delivery of wastewater to the treatment plant location
- Treated wastewater reticulation and irrigation from the discharge of the treatment plant

Please note this is a budget price only and this response does not constitute an offer capable of acceptance. We look forward to providing a fixed price offer for this project in due course, once treatment requirements and scope are defined.

Regards

DR STEVE KROENING
COMMERCIAL MANAGER