A X I S
BUILDING DESIGN & CONSTRUCTION MANAGEMENT

6 Stuart St, PO Box 1166, Blenheim. Tel 03 578 7760

Ref: 1681

6 December 2002

The Chief Executive
Marlborough District Council
P O Box 443
BLENHEIM

ATTENTION: Mrs Anna Straker

Dear Anna

re: Resource Consent Application No. U021275 for Mr & Mrs Hamish Doig at Milton Bay, Bay of Many Coves, Queen Charlotte Sound

Thank you for your letter of 5 December 2002.

Following your advice we wish to extend this application to include the necessary consents for positioning of the effluent treatment system within the Conservation Zone - Sounds Foreshore Reserve, and effluent disposal within the area of the applicants property covered by the Hazard Overlay. We understand this to include a discharge consent.

We have engaged on behalf of Mr Doig, "Lets Go Enterprises" of Nelson, to design, manufacture and install the effluent treatment system. We enclose details of the system from "Lets Go Enterprises" specific to this application. This system has been designed to provide for the future house on site. We have also included a copy of our drawing reference 1681 sheet DR3 showing the location of the effluent disposal area, and a locality plan.

We are aware that the Engineering Report from Hadley Consultants is out of date for acceptance by Council. Mr Hadley has recently been on site and is happy to revalidate his report. Mr Hadley will provide revalidation of his report direct to Council.

You advised that the standard quoted in Mr Hadley's report has been superseded. Mr Hadley referred to NZS 1546.1:1998, you have referred to NZS 1547:2000. These are two completely different standards covering two different aspects.

Both standards are valid for their particular specific areas of design. Mr Hadley has no concerns from an engineering point of view with the effluent treatment system proposed.

We have revised our submission, now dated 6 December 2002, to cover the additional aspects of this consent. In our submission we note that the effluent disposal area will be situated at least 30 metres from the sea, and that there are no other watercourses/water bodies in the proximity of the site. As advised recently there are no watercourses on the Doig property. A domestic water supply will be sourced approximately 150 metres from the boatshed.

We have had further discussion with the Department of Conservation. They are happy with the proposal and are willing to sign a green form. We have discussed mitigation measures to satisfy their concerns. These mitigation measures are contained in our revised assessment of effects. We have forwarded copies of data to Department of Conservation, and await their green form, etc.

You are correct that the property is owned by the Doig Family Trust. Mr Burmester happens to be a Trustee of the Doig Family Trust and a Director of independently owned, Queen Charlotte Forestry Ltd and Milton Bay Holdings Ltd. The Doig Family Trust purchased the land from Milton Bay Holdings Ltd in August 2000.

We trust the above fulfills your concerns with this application and allows the processing to continue.

Yours faithfully

Dennis

Dennis Fisher

DWF:BMM

Encl

HADLEY CONSULTANTS
a division of Wharehunga Enterprises Limited
Consulting Civil & Structural Engineers
21B Percy Street, Blenheim * Telephone (03) 578 2998 * Facsimile (03) 578 2996

13 December 2002

The General Manager
Marlborough District Council
P O Box 443
BLENHEIM

ATTENTION: Ms Anna Straker

Your Reference: U021275

Dear Anna

CURRENCY OF ENGINEERING REPORT AND RESOURCE CONSENT FOR DISCHARGE TO LAND AT DOIG PROPERTY, LOT 7, D.P 1514, MILTON BAY, BAY OF MANY COVES, QUEEN CHARLOTTE SOUND.

The confirms that our engineering report numbered 00067 and dated 3 August 2000 on the above property, Lot 7, D.P. 1514, prepared for Milton Bay Holdings Limited, remains valid at even date.

We understand that the effluent disposal system now proposed is to be constructed on the Foreshore Reserve and the effluent there from is to be discharged through a pressurised dripper system laid in the bush on the subject property towards the north in or around the position adjoining the lower platform shown on page 21 of our engineering report on this property.

We further understand that this system is a Biocycle plant that is to be installed by Lets Go Enterprises Limited, Nelson. We are familiar with this company and its work. Our experience is that its work and its designs for the Biocycle plant and effluent disposal attachments to the septic tank system proposed are amongst the highest standards currently available in Marlborough.

Should you require any further information on the detail of our engineering report on this property please feel free to contact us directly at your convenience.

Kind regards
HADLEY CONSULTANTS

Jim Hadley
Director.

cc Mr Dennis Fisher

HADLEY CONSULTANTS
a division of Wharehunga Enterprises Limited
Consulting Civil & Structural Engineers
21B Percy Street, Blenheim * Telephone (03) 578 2998 * Facsimile (03) 578 2996

20 December 2002

The General Manager
Marlborough District Council
P O Box 443
BLENHEIM

ATTENTION: Mr Pere Hawes

Your Reference: U021275

Dear Pere

EFFECT ON LAND STABILITY OF DISCHARGE OF EFFLUENT FROM TREATMENT SYSTEM TO LAND AT DOIG PROPERTY, LOT 7, D.P 1514, MILTON BAY, BAY OF MANY COVES, QUEEN CHARLOTTE SOUND.

This confirms that it is our opinion that the addition of a daily total dosage of 750 litres per day dispersed over an area of about 200 to 250 square metres of land on the Doig property, as proposed by Lets Go Enterprises, will not affect the stability of the land contained in this allotment in any way.

The position of the irrigation field, or more accurately, irrigation line is over a small spur at which rock out crops to the north of the boatshed. The approximate position of this spur on Axis Building Design's drawing DR3/1681, dated December 2002, is on the line of the arrow that is denoted "treated effluent pumping line" on this drawing.

The land to the north of this spur is quite steep as mentioned in our engineering report, numbered 00067 and dated 3 August 2000, on this property that was prepared for Milton Bay Holdings Limited. This land, though relatively steep, has a ground slope that is largely uniform and the land is well covered in regenerating native bush and wilding pines.

We suspect that the diagrammatic representation of the effluent field shown on the Axis drawing may not be able to be accomplished in practice. We believe that it is much more likely that either two to four longer dripper lines will, in practice, prove easier to lay along contour lines than the five shorter looped lines shown on the drawing.

If this practical opinion proves correct then obviously the application rate of the effluent to any unit length of the downhill slope will be much less than shown on the Axis drawing. Thus, in practice the effective cumulative application rate will be well below the 25 mm per week to the soils on the slope. Indeed it would be our preference to construct the irrigation lines across the slope and we will be recommending to both Axis and Lets Go Enterprises that the irrigation lines follow contours over the region between the small rock spur and the north boundary of the allotment.

We have arranged for the Axis drawing to be amended accordingly and the revision of DR3/1681 issue B is attached for Council records.

We note that Lets Go, at the top of page 2 of its letter of 6 December 2002 to Axis, have assessed the soil texture of the ground at the Doig property as a clay/loam in terms of Table 4.2A4, page 125 of NZS 1547:2000. We would concur with this assessment of the soil conditions and would consider these soils as at least moderately structured and more probably highly structured since they tend to contain significant quantities of greywacke/schist particles interspersed amongst the soils.

We have contacted Mardy Audier of Lets Go today and confirmed from him that the effluent discharge into the dripper lines at the Doig property will meet the quality control standards for spray irrigation as set out in NZS 1547:2000 Clauses 4.2A.10.6.2 and 4.2A.10.6.3.

Mardy advised that this system could not accomplish this standard for faecal coliform counts without the ultraviolet treatment being installed downstream of the discharge from the tanks.

We trust that this information is sufficient for your immediate purposes.

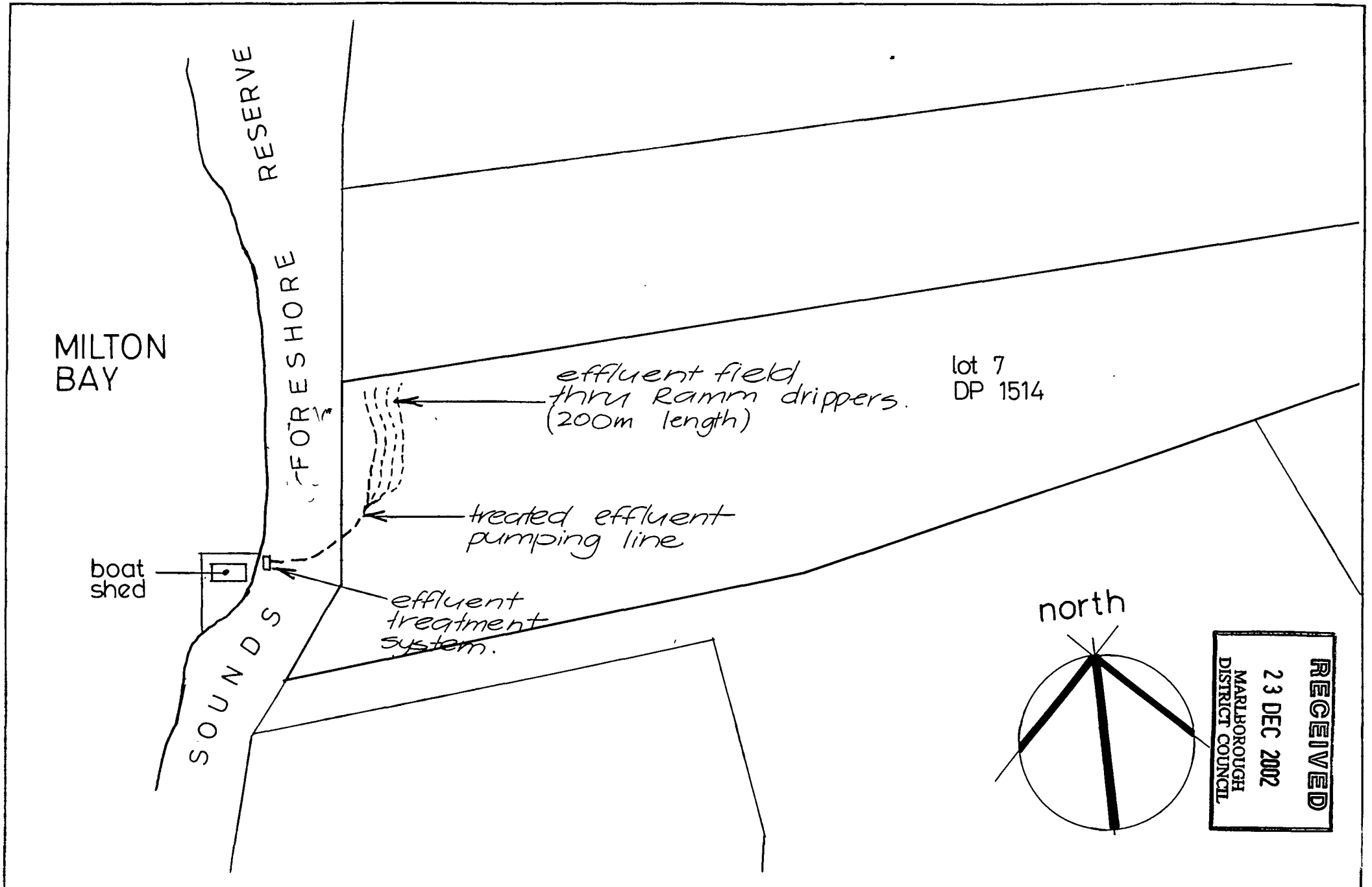
Should you require any further information on the stability of the land or on the effluent disposal system please feel free to contact us directly at your convenience.

Our telephone number in the Sounds in the New Year is 579-9007 and our fax number is 579-9006.

Kind regards
HADLEY CONSULTANTS

Jim Hadley
Director.

cc Mr Hamish Doig
Mr Dennis Fisher
Mr Mardy Audier



AXIS
BUILDING DESIGN & CONSTRUCTION MANAGEMENT

NEW BOATSHED AND FLOATING JETTY FOR MR & MRS HAMISH DOIG AT MILTON BAY QUEEN CHARLOTTE SOUND

effluent disposal plan

DRAWN DF	CHECKED	SCALES 1:1250	SHEET DR3
TRACED	DATE DEC 02		ISSUE AB
			SERIES OF
			REF 1681

Lets Go! Enterprises

** Specialists in Wastewater Treatment Solutions **

PO Box 1508, Nelson
Ph: (03) 548 8108
Fax: (03) 548 8068
Mobile: 021 LETSGO
Email: lets.go@xtra.co.nz

COPY

6th December 2002

Axis
PO Box 1186
Blenheim

Attn: Mr D Fisher

Dear Dennis,

RE: Mr & Mrs Doig – Boatshed Wastewater Treatment System

System – STEMPHLOW NM1 semi passive Wastewater Treatment Plant

System Specifications

- Tank: Muti chamber 7,500L in ground Glass fibre tank.
- No. of chambers: 3 (1st Primary, 2nd Primary and pumpout)
- Working Capacity: 6,000L
- Dimensions 3570mm L x 1780mm W (top) 1410mm W (bottom) x 1530mm H
- Invert: 1200mm from bottom
- Hydraulic Loading: 1500L per day
- Discharge Method: Pumped

Land Application System

1.1.1 Loadings

Based on AS/NZS 1547:2000

Occupants:	up to 6 people
Flow Allowance:	125 litres/person/day [1]
Total Flow:	750 litres per day

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Footnote:
[1] Adjusted by 15 lpd as an allowance for a dual flush toilet

1.1.2 Application Method

Pumped discharged going through a UV sterilisation unit and applied to the land via a network of surface/covered RAAM dripperline.

1.1.3 Designed Irrigation Rate (DIR)

DIR for clay loams (AS/NZS 1547:2000 table 4.2A$) is 25mm/week.

Land Application Area required to achieve a 3.6mm areal loading:
750 litres/3.6mm = 208 square metres

1.1.4 Design

- Supply Line: 25mm LDPE
- Main: 25mm LDPE/16mm Lateral
- Submain: 16mm Lateral
- Laterals: RAAM 17, 2.3 lph emitters @ 0.6m spacings
- Lateral Spacing: 0.6m
- Lateral Depth Surface
- Coverage Bark, mulch and/or soil
- Disinfection Unit SF940S Setriflo UV unit

1.1.5 Operating info

The generator will need to be run once to twice a day to pump the processed effluent to the field. Estimated run time per cycle 20min.

A UV unit is required to reduce the bug count in the processed effluent when the dripper line is run through the bush with minimal cover.

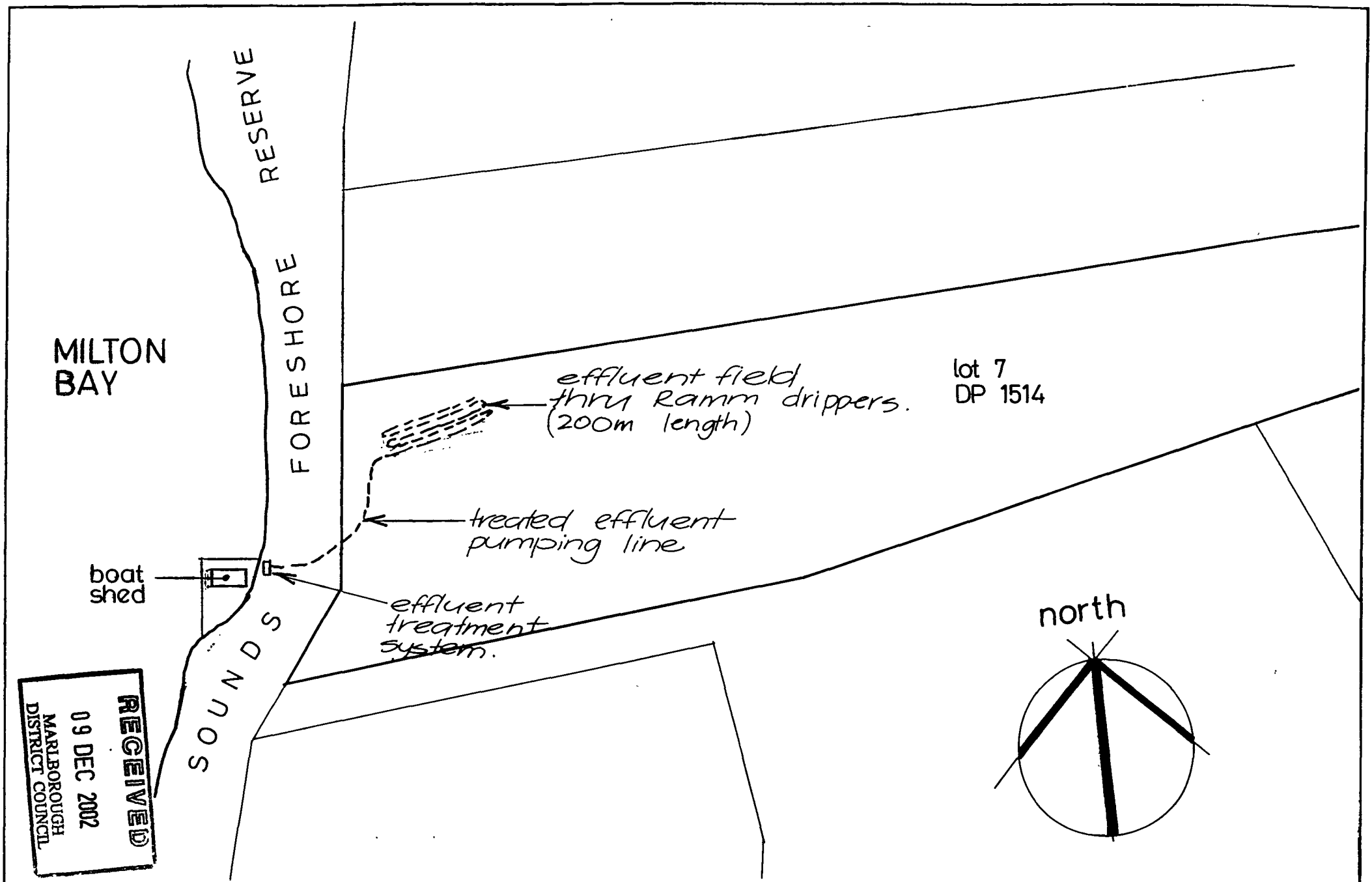
The discharge filter and Biotube filter will require cleaning periodically.

The system should be inspected annually to check that the system is operating efficiently

If you require any further info with regard to the above information please contact me.

Regards,

Mardy Audier
Wastewater Treatment Specialist



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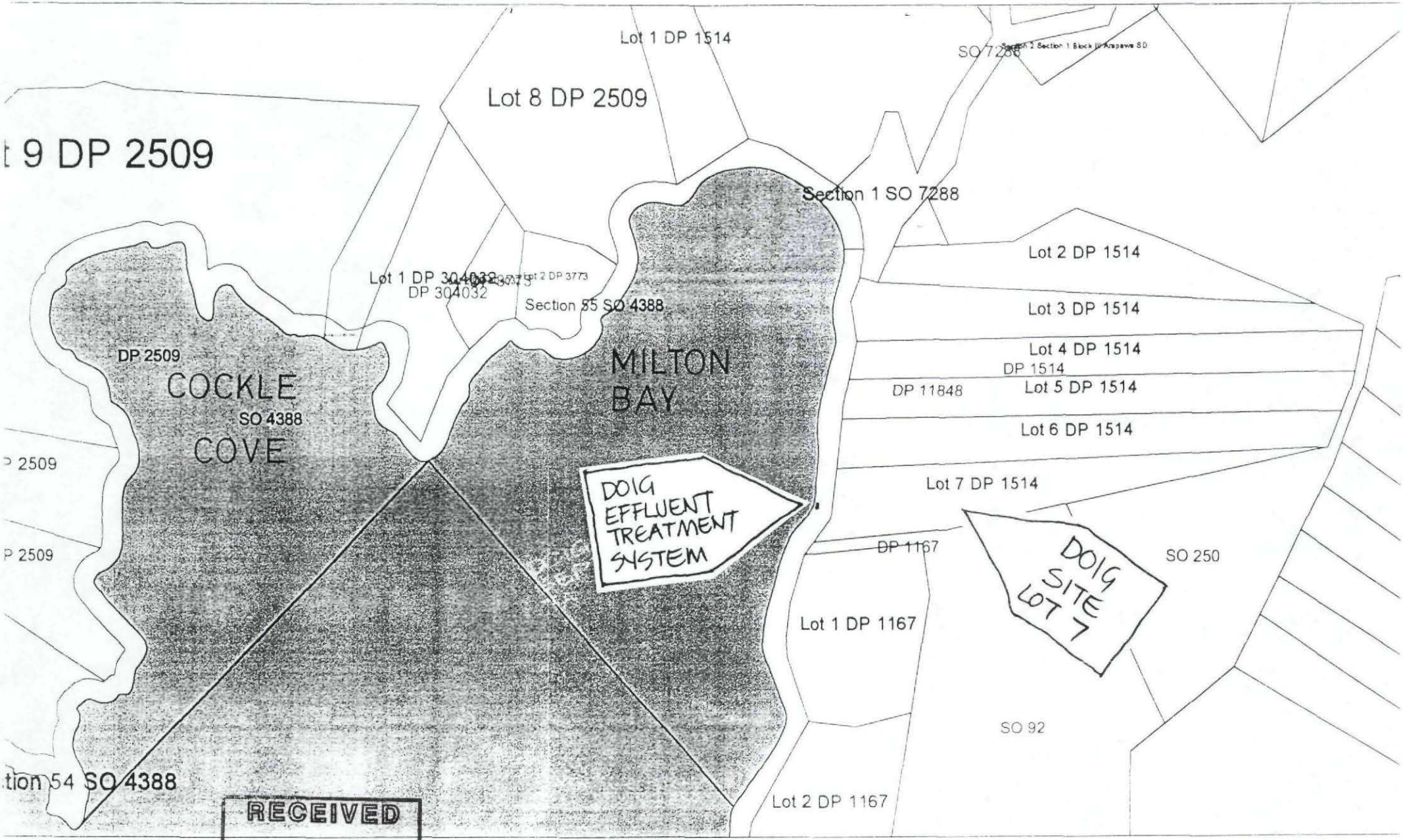
BUILDING DESIGN & CONSTRUCTION MANAGEMENT

NEW BOATSHED AND FLOATING JETTY FOR MR & MRS HAMISH DOIG AT MILTON BAY QUEEN CHARLOTTE SOUND

effluent disposal plan

DRAWN DF	CHECKED	SCALES 1:1250	SHEET DR3 issue A
TRACED	DATE DEC 02		SERIES OF REF 1681



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Spatial Map Print

Scale 1 : 5000

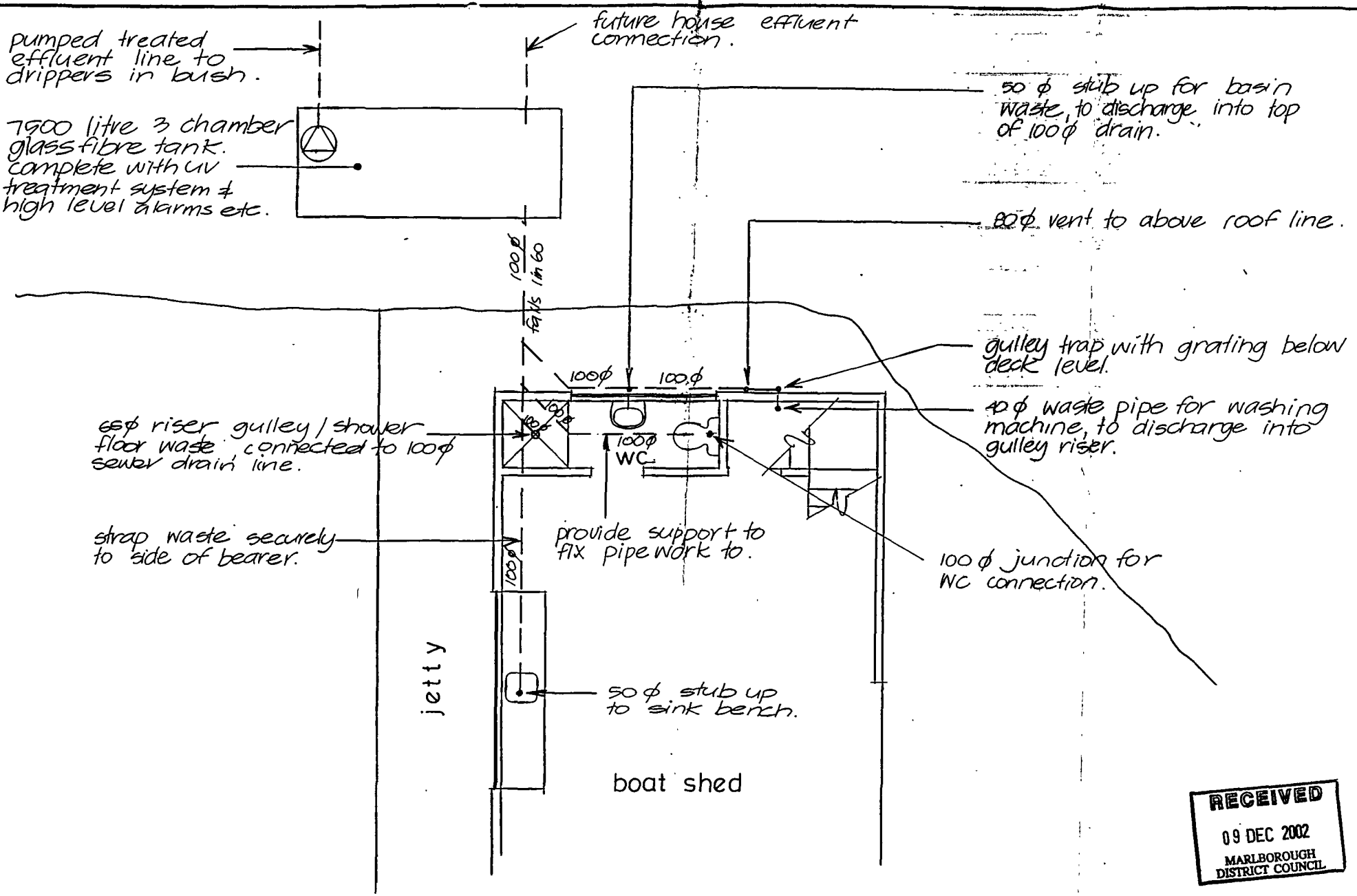
0 100 200 300 400 500 600m

Land Information

This data has been compiled from official records. Location of boundaries requires an analysis of all relevant information in compliance with the Survey Regulations. Attribute data requires an analysis of the appropriate legal record.

Spatial Map Print as at 05-12-2002 15:43:42

pmorton00



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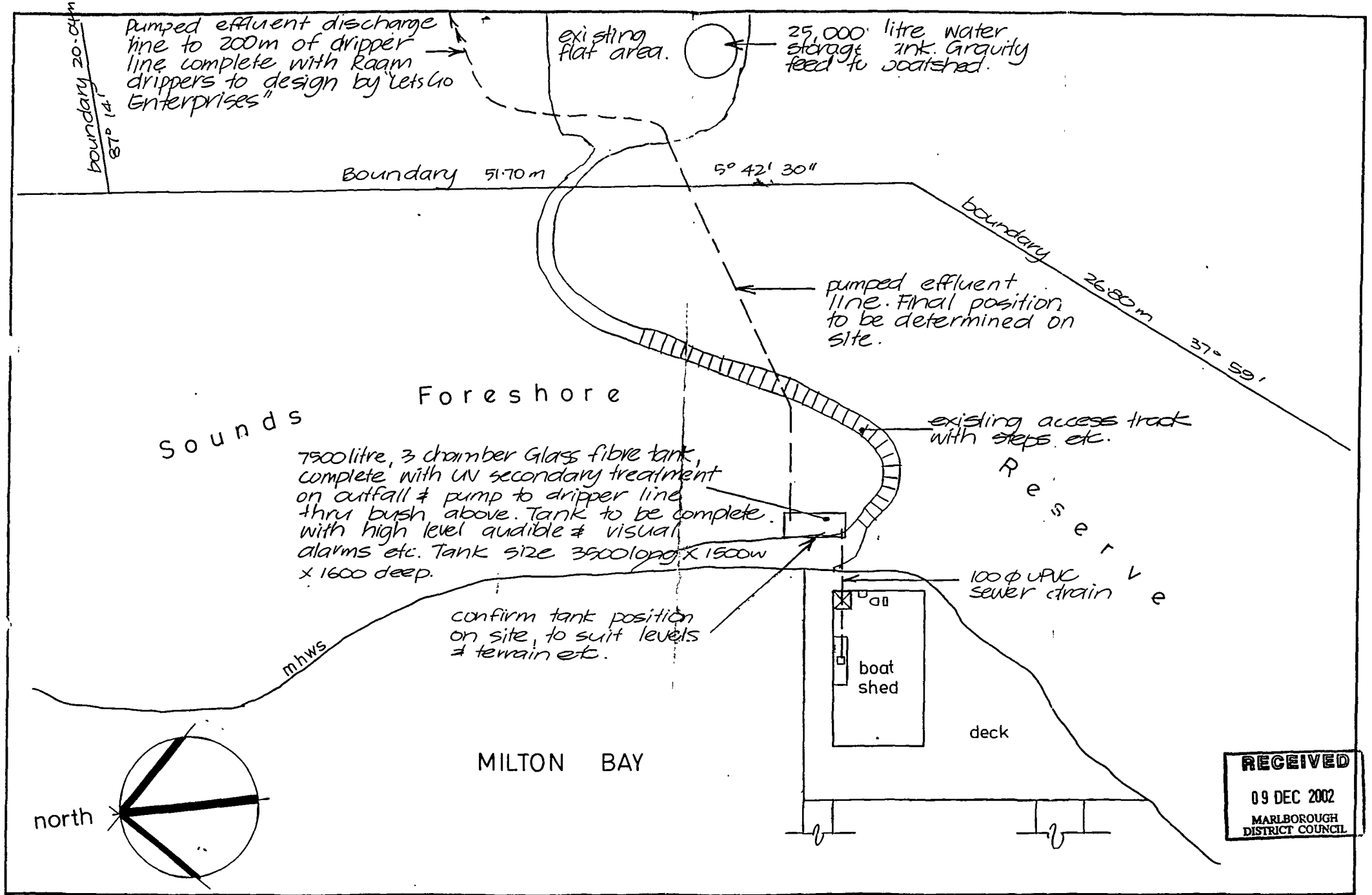
NEW BOATSHED AND FLOATING JETTY FOR MR & MRS HAMISH DOIG AT MILTON BAY QUEEN CHARLOTTE SOUND

sewer drainage

DRAWN DF	CHECKED	SCALES 1:50	SHEET DR2 issue A/B
TRACED	DATE 10/02		SERIES OF REF 1681



AXIS
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6 Stuart St, PO Box 1166, Blenheim Tel 03 578 7760

NEW BOATSHED AND FLOATING JETTY FOR MR & MRS HAMISH DOIG AT MILTON BAY QUEEN CHARLOTTE SOUND.

sewer drainage site plan

DRAWN DF	CHECKED	SCALES 1:200	SHEET DR1 issue A B
TRACED	DATE 10/02		SERIES OF REF 1681