From: Bernsdorf Solly, Susi
To: Tammy Ward

Subject: 13 March email - response from CGW to question from Tonkin and Taylor

Date: Monday, 4 May 2020 10:19:19 a.m.

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image004.ipg image005.png

Susi Bernsdorf Solly

Senior Planner



T: +64 3 548 9463 M: +64 27 246 4893 Susi.b.solly@wsp.com

WSP Level 1 Morrison Square 77 Selwyn Place Nelson 7010 New Zealand

wsp.com/nz



From: courtenay isherwood <csisherwood@hotmail.com>

Sent: Friday, 13 March 2020 3:18 PM **To:** LCrichton@tonkintaylor.co.nz

Cc: Bernsdorf Solly, Susi <Susi.b.solly@wsp.com> **Subject:** 205 Lud Valley Road Martin Williams

Hi Luke,

Martins amended response email below, and previous email responses from him show he has seen the new plan.

If this doesnt suffice, let me know and will ask him to respond in more detail directly to you himself.

Regards

Courtenay Isherwood

Director

Isherwood Consultants Limited

021 066 3357

https://www.facebook.com/ResourceConsents/



Sent from Mail for Windows 10

From: courtenay isherwood

Sent: Wednesday, 4 March 2020 10:58 AM

To: Martin Williams

Cc: Kylie Johnson; Brandon Kay

Subject: Re: RE: Statement from Waka Group Limited for Isherwood Consultants Limited

Thanks Martin Courtenay

--

Sent from myMail for Android

Change comment b) to:

- Please refer to PDF attachment 205 Lud Site Contours.pdf
- Of the ten cross sections, four marginally exceed the recommended 35% (19.3°), being sections A1 (21.4°), A4 (19.6°), A8 (20.9°) and section A9 (20.3°). The average slope from the ten sections is 18.9°. which meets CGW's recommendations. From an instability perspective, the localised slightly steeper angles are negligible and the increased risk inconsequential.

Regards

Martin Williams • Geotechnical Manager

BSc, MSc, CMEngNZ, CPEng, IntPE, CGeol

CGW Consulting Engineers

Auckland • Nelson • Christchurch • Wanaka • Wellington

Ph: 03 548 8259 • Mob: 027 271 2270

Email: martin@cgwl.co.nz • www.cgwl.co.nz

Level 4, 241 Hardy Street, Nelson 7010

PO Box 711, Nelson 7040

http://downingdesign.co.nz/uploads/CGW_signature.jpg



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From: courtenay isherwood < csisherwood@hotmail.com>

Sent: Tuesday, 3 March 2020 2:21 pm **To:** Martin Williams < <u>Martin@cgwl.co.nz</u>>

Cc: Kylie Johnson <<u>kylie@cgwl.co.nz</u>>; Brandon Kay <<u>Brandon@cgwl.co.nz</u>>

Subject: FW: Statement from Waka Group Limited for Isherwood Consultants Limited

Hi Martin,

Please find attached plan from Waka showing the 10m interval sections and correct cross sections.

Do you mind reviewing and amending your previous response below to reflect the correct data? Any urgency you can give this would be appreciated.

Cheers

Courtenay

- 16. Please supply the following information to demonstrate compliance with your geo-professional and wastewater engineer's recommendations in relation to the proposed waste disposal field:
- a) An accurate plan of the proposed location of the disposal field at a scale no larger than 1:500 at A3, complete with labelled contours, the location of the proposed disposal field, <u>and areas where no building is recommend and identified instability areas exist (as identified by the Geo-professional).</u>
 - Please refer to PDF attachment 18360-01-DWG.pdf
- b) Regular cross-sections through the steepest slope profiles of the proposed disposal field to demonstrate that the location of the disposal field can be located on slopes that comply with the Geo-professional's recommendation. Cross-sections should extend up and down slope of

the disposal filed and be a maximum of 10 m apart. If they reveal that the area of the proposed disposal field is in excess of 35% (19.3°). please provide results of slope stability analysis and commentary from the Geo-professional (as originally requested under Q16.b)

- Please refer to PDF attachment 205 Lud Site Contours.pdf
- Of the five cross sections, two marginally exceed the recommended 35% (19.3°), being section D (21.0°) and section E (19.5°), which as the plan shows are nearer to the steeper southern part of the site. From an instability perspective, the slightly steeper angle is negligible and the increased risk inconsequential.
- c) With regard to the Geo-professional response 'that sensitivity would have already become apparent following sustained rain storm events with rainfall water application rates far in excess of the effluent application rate.' We find this statement to be contradictory, as the provided geotechnical assessment of the site has highlighted that the area has already experienced instability. Furthermore, the response fails to differentiate between short term shallow infiltration rates from rainfall events and the potential to continually saturate ground from a disposal field.
 - The point about rainfall intensity far exceeding water application rates is valid.
 - Effluent Design 1.5mm per day = 46.5mm per month. Rainfall, see summary https://figure.nz/chart/5luPMt4ZwD9Sdkf7-aM8MOVf4lsUXpmte, on average exceeds this figure every month.
 - The statement is not contradictory. Refer to the no build zones and the observed shallow instability's on the plan. The areas of observed shallow instability are/were significantly steeper than 35%, as shown by closer spaced contours. CGW have been quite conservative with the no-build zones around these shallow instability areas ... and 'no build' does not mean ... 'no wastewater disposal'.

Sent: Tuesday, 3 March 2020 2:07 PM

To: courtenay isherwood csisherwood@hotmail.com

Subject: Re: Statement from Waka Group Limited for Isherwood Consultants Limited

Hey mate please find attached.

On Tue, Mar 3, 2020 at 1:58 PM courtenay isherwood <<u>csisherwood@hotmail.com</u>> wrote:

Courtenay Isherwood

Director
Isherwood Consultants Limited

Any luck mate?

021 066 3357

From: Keni-Duke Hetet < kd@wakagroup.co.nz >

https://www.facebook.com/ResourceConsents/



Sent from $\underline{\text{Mail}}$ for Windows 10

From: Keni-Duke Hetet

Sent: Tuesday, 3 March 2020 10:49 AM

To: courtenay isherwood

Subject: Re: Statement from Waka Group Limited for Isherwood Consultants Limited

Hey courtenay I thought I sent them? I'll check when I get back to the office

On Tuesday, March 3, 2020, courtenay isherwood <<u>csisherwood@hotmail.com</u>> wrote:

Courtenay Isherwood Director Isherwood Consultants Limited	Hey Keni how you getting on with the p	an and cross sections?
Director Isherwood Consultants Limited D21 066 3357 Inttps://www.facebook.com/ResourceConsents/. Sent from Mail for Windows 10 From: Keni-Duke Hetet Sent: Thursday, 27 February 2020 3:49 PM To: courtenay isherwood Co: info@wakagroup.co.nz; Chris Phillips	Cheers	
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