

From: Z1649206 MWH Hazards Team <SM-AP-NZ-MWHHazardsTeam@mwhglobal.com>
Sent: Thursday, 6 October 2016 11:29 a.m.
To: Lianne Darby
Subject: RE: 505 Saddle Hill Road
Attachments: Google Earth Pro 6102016 104129 a.m..bmp.jpg; 2GP slope data - red steeper than 15.bmp.jpg

Hello Lianne

We have assessed the application in relation to the hazard register, street files and available aerial photography. We have not visited the site.

We have the following comments to make regarding the application.

Proposal

The proposed activity is to subdivide 505 Saddle Hill Road, Saddle Hill, into five lots.

- The site has frontage to Saddle Hill Road and a leg-in from Scurr Road.
- There is an existing dwelling situated at the extreme northwest end of the site fronting Saddle Hill Road.
- The site is regenerating native bush ... and gorse.
- Lots 1 to 4 will have areas of 4800m² to 1.1ha, and are to be residential properties situated at the edge of Saddle Hill Road.
- Lot 5 will be the balance area, to be amalgamated with the balance land to form a new site of 80.6ha.

Site investigation reports have been provided from Jon Lindqvist, dated 3 June 2016.

Plans for the proposal are provided within the application

Hazards

The Hazards Register shows this land as being subject to 10357 – Unknown risks – we were unable to find supporting documentation to classify this risk, but anticipate that it is likely a result of steep topography.

Because the heavy cover of vegetation over the property precluded a thorough analysis of the ground surface, Dr Lindqvist recommends that a thorough check is made during the preparation of each platform for possible weak subsoils that are particularly likely to be found near the schist\Taratu Formation contact.

Global Setting

Variably altered schist rock, and near-surface Taratu Formation sediment or Quaternary loess

Steep slopes are present, with the 2GP slope Awareness layer indicating steeply slopes gullies on each lot.

The accuracy of this information is unlikely to be good, given the soft cover, and density of survey that this is based upon, however, it is clear that some of the proposed platforms may encroach onto ground sloping steeper than 15°.

However, Lots 2 and 3 specifically appear likely to result in a dwelling structure situated on moderately steeply sloping ground

Earthworks / Excavations / Retaining Structures

We would anticipate the potential for significant earthworks / fill and retaining structures to develop these properties

The scale of such work is not indicated in the application.

Discussion

The application acknowledges the risks of developing on a sloping site, and also the available information indicating multiple land areas in the vicinity associated with prior land movement.

The applicant has therefore sought appropriate professional advice from Dr Lindvist.

However, this advice recognises the difficulty of access, and therefore the preliminary nature of the information to date.

The application suggests that this issue is dealt with by way of conditions.

Advice

We recommend that advice and conditions be made to the effect:-

There is no record of features associated with prior land movement, however, the property contains steeply sloping ground.

Although proposed Lot 4 has ample space to situate a new dwelling without placing it on steeply sloping ground, there is a potential for a dwelling on Lots 1-3 to be constructed on ground with a slope steeper than 15°.

Following clearance of vegetation for each dwelling platform

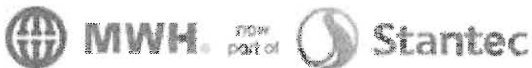
- The dwelling platform and surrounding 10m apron must be surveyed to confirm actual topography / slopes.
- A suitably qualified geologist / geotechnical specialist must inspect the platforms for features of global instability or weak foundation soils.
- Development on properties steeper than 15° is subject to approval of a site specific geotechnical assessment by an appropriately qualified person, confirming that the site is suitably stable, and that the proposed construction or earthwork will not create or exacerbate instability on this or adjacent property.

Significant earthworks are likely to result in their own resource consent, but provided the above confirmation is undisputed, the advice for earthworks is likely to be:

- All walls retaining over 1.5m, or a surcharge / slope, including terracing, require design, specification and supervision by appropriately qualified person/s
- Any earth fill over 0.6m thick supporting foundations must be specified and supervised by a suitably qualified person in accordance with NZS 4431-1989 Code of Practice for Earthfill for Residential Development
- Slopes may not be cut steeper than 1:1 (45°) without specific engineering design and construction
- Slopes may not be filled steeper than 2h:1v (27°) without specific engineering design and construction

Regards

Lee



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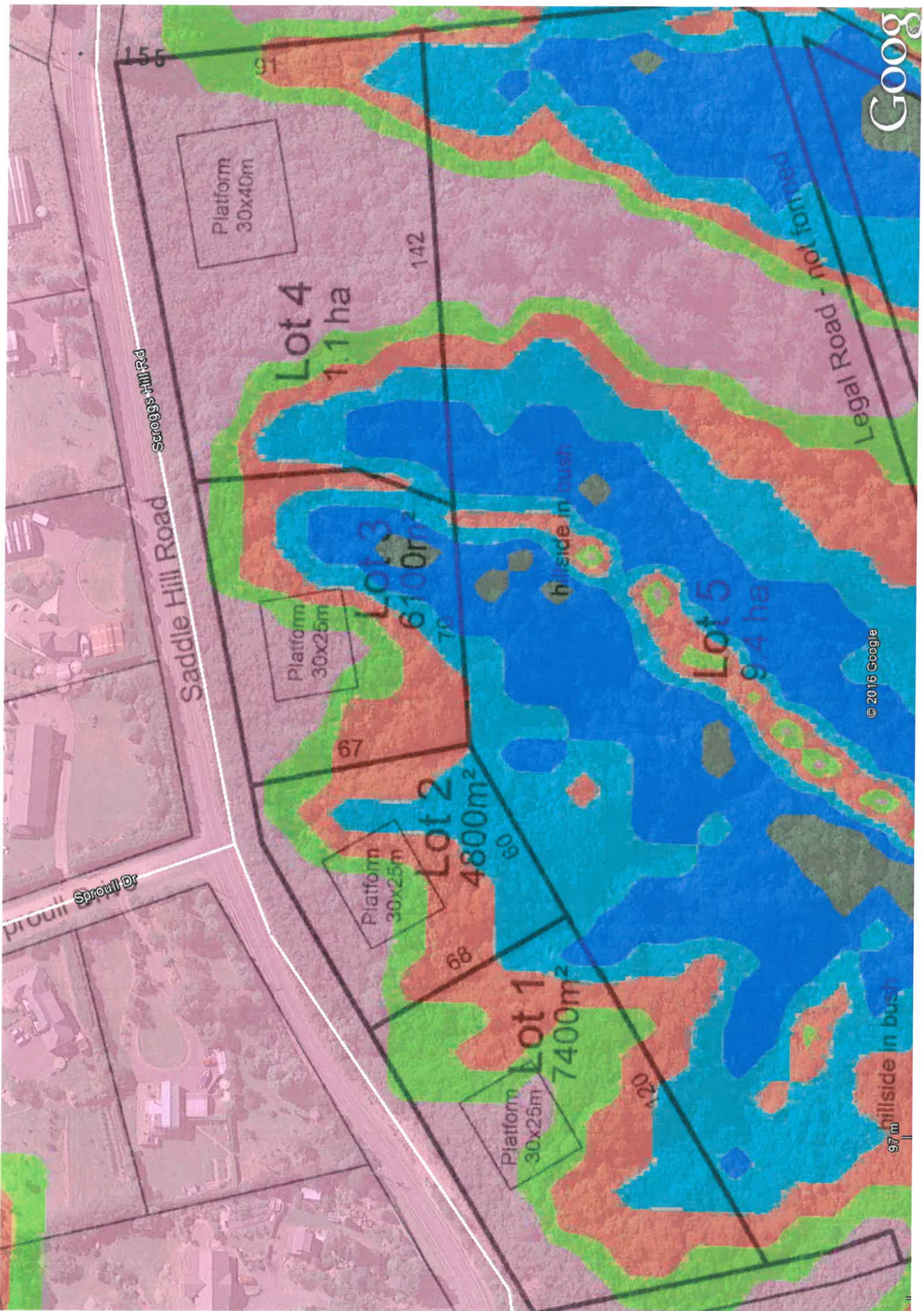
Please visit www.stantec.com to learn more about how Stantec designs with community in mind.

From: Lianne Darby [<mailto:Lianne.Darby@dcc.govt.nz>]

Sent: Wednesday, 28 September 2016 12:27 p.m.

To: Resource Consents WWS-BC Comments <resconsent.wwsbc-comments@dcc.govt.nz>; Grant Fisher <Grant.Fisher@dcc.govt.nz>; Lee Paterson <Lee.M.Paterson@mwhglobal.com>; Z1649206 MWH Hazards Team <SM-AP-NZ-MWHHazardsTeam@mwhglobal.com>; Nic Jepson <Nic.Jepson@dcc.govt.nz>;





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