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24 October 2019

Chief Executive
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Attention: Craig Hobbs, Director Regulatory Services
(E: craig.hobbs@aucklandcouncil.govt.nz)
Ian Maxwell, Director Customer and Community Services
(E: ian.maxwell@aucklandcouncil.govt.nz)

Dear Messrs Hobbs and Maxwell

USE OF HYDRAULIC MODELLING TO DETERMINE STREAM WIDTH

Who are we?

Survey and Spatial New Zealand (S+SNZ, legally incorporated as the New Zealand Institute of Surveyors) represents surveyors and spatial professionals. We are a stakeholder across a wide range of government policy areas and the sector including housing development, land subdivision, construction, infrastructure, spatial information and resource management. Our members are professionals responsible for the preparation of Cadastral Survey Datasets in accordance with the Surveyor-General's *Rules for Cadastral Survey 2010*, (the Rules) established under section 49 of the Cadastral Survey Act 2002 (the Act).

We understand that:

Increasingly Auckland Council is requiring that banks of a stream be defined by hydraulic modelling to determine if an esplanade reserve is required under the Resource Management Act 1991 (RMA). We understand from our membership that Auckland Council is referencing 'How wide is the stream', an article authored by Beca Infrastructure Ltd that refers to the Environment Court decision in *Whitby Coastal Estates Ltd v Porirua City Council W061/2008 [2008]* to support this assessment technique.

Why is this of concern?

S+SNZ is concerned that there appears to be a lack of common understanding in respect to the requirement for, and determination of, esplanade reserves. The Act is clear that only a Licenced Cadastral Surveyor (LCS) can define the spatial extent of interests, including the beds of streams and esplanade reserves. The Cadastral Surveyors Licensing Board ensures that an LCS is competent to do this. An LCS must certify that all spatial interests within their datasets are accurate, correct and in accordance with the Act and the Rules.

An LCS when defining spatial interests under section 6.1 of the Rules must:

- (a) *“gather all evidence relevant to the definition of the boundary and its boundary points,*
- (b) *interpret that evidence in accordance with all relevant enactments and rules of law, and*
- (c) *use that evidence to determine the correct position of the boundary and boundary points in relation to other boundaries and boundary points.”*

Auckland Council, in enforcing stream banks and therefore stream boundaries to be calculated by a specific method, is requiring an LCS to conduct a survey in a manner which is in breach of the Act. LCSs are now having to contest with Auckland Council, which is leading to unnecessary cost and further delays in the consenting process.

We also understand from our members in Auckland that some LCSs are accepting this approach of using the calculated definition of a stream bank, which is concerning. We suspect that this may have been a pragmatic approach to ensure that the consenting process is not delayed unnecessarily, however it does not follow industry-accepted best practice. We are concerned that in doing so, the LCS could be found guilty of professional misconduct, under Clause 1(e) of Schedule 2 of the Act.

Case Law:

By section 6.1 (b) of the Rules, *“interpret that evidence in accordance with all relevant enactments and rules of law”* we would like to bring attention to *Dewhirst Land Co Ltd v Canterbury Regional Council* which was heard in the High Court and the judgment was released last December. The Judge’s finding was ***that the river bed is the area between the reasonably observable banks of a river*** (emphasis added). This decision was upheld by the Court of Appeal which further concluded *“Did the High Court err in concluding that the assessment of various flow rates or return periods was an irrelevant consideration in determining the extent of the riverbed? Answer: No.”* Hence the judgment placed a greater emphasis on bank determination rather than flow determination and represents a substantive alternative to the *Whitby* case on which the ‘How wide is the stream’ article is reliant.

For LCSs to adhere to the Rules it is essential to allow surveyors to consider the specifics of each court decision and therefore rules of law with relevance to the stream or water body in question.

We suggest the following:

The Department of Conservation (DOC) has a publication “The Identification of Water Bodies that will qualify for marginal strips” released in June 2008, which states the following:

“Surveyors will be expected to identify the bed that will be covered at fullest flow by looking for the physical evidence of the extent of that bed in the same way that they would look for evidence when

determining any other natural water boundary. It will be necessary to consider such matters as vegetation change and the existence of previously eroded banks.

Judgement will need to be exercised where there is a significant expanse of shingle between the waters edge and the bank represented by consolidated vegetated ground. This is particularly the case with braided rivers.”

Section 2 (1) of the Conservation Act 1987 defines ‘bed’ to mean

(a) in relation to any river, the space of land, which the waters of the river cover at its fullest flow without overtopping the banks: and

(b) In relation to a lake, the space of land which the waters of the lake cover at its highest level without exceeding its physical margin”

The only difference between the definition of determination of stream bed width between the Conservation Act and the RMA is that the RMA in its 2003 amendment added the word “Annual”. One surmises this is to ensure that at all times, seasonal variations are considered.

The methodology set out in the DOC guideline with respect to defining the bed of a river should, in our opinion, be the methodology used by Councils nationwide with respect to the definition of rivers under the RMA.

What we would like to see happen:

As explained above an LCS has a duty to consider physical evidence when determining the location of a boundary and is granted an annual practicing certificate under the Act to do this. We respectfully request that Auckland Council recognises LCSs to be the only professionals with the expert knowledge and authority to determine where a boundary is.

Notwithstanding the above, there appears to be some misunderstanding around the matter and therefore we would like to meet with the Auckland Council Parks senior management with a view to setting up a workshop with the wider Parks team. We recommend the inclusion of the Subdivision Team also. We anticipate that all parties will benefit from a collaborative forum promoting two-way communication.

We look forward to your response.

Yours faithfully



Rebecca Strang
President



Matt Ryder
Leader, Cadastral Stream