

## **LAND DEVELOPMENT ADVOCACY:**

### **QUERYING AUCKLAND COUNCIL ON USE OF HYDRAULIC MODELLING TO DETERMINE STREAM WIDTH**

Attached is correspondence between S+SNZ and Auckland Council on the use of hydraulic modelling to determine stream width.

S+SNZ set out its concerns in a comprehensive letter covering the role of Licensed Cadastral Surveyors in defining the spatial extent of interests, including the beds of streams and esplanade reserves; examined recent case law on the determining stream width that went all the way up to the Court of Appeal; suggested the correct methodology to use; and asked to meet with Auckland Council to discuss the Council's process to determine esplanade reserves and esplanade strips.

Auckland Council responded by acknowledging S+SNZ's concerns and outlined the process Auckland Council is implementing with respect to the processing of subdivision consent applications to determine whether an esplanade reserve or esplanade strip is required.

If members have any queries regarding this process, please contact:

**Kerstin Strauss**, Principal Specialist – Subdivision, Auckland Council

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Tel 09 301 0101 (Auckland Council) and ask to speak to Kerstin.



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24 October 2019

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Attention: Craig Hobbs, Director Regulatory Services

(E: [craig.hobbs@aucklandcouncil.govt.nz](mailto:craig.hobbs@aucklandcouncil.govt.nz))

Ian Maxwell, Director Customer and Community Services

(E: [ian.maxwell@aucklandcouncil.govt.nz](mailto: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**

12 November 2019

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Attn: Rebecca Strang & Matt Ryder

Kia ora Rebecca and Matt

**Response to concerns expressed in relation to the process Auckland Council is using to determine the necessity to create Esplanade Reserves and Esplanade Strips along rivers**

Thank you for your letter of 24 October 2019 in which you raised concern with respect to council's process to determine when esplanade reserves and esplanade strips are necessary to be set aside under section 230 of the Resource Management Act 1991 as part of the consideration of a subdivision consent application and the determination of the boundaries of those allotments.

Firstly, I would like to clarify that council agrees that it is the role of a Licenced Cadastral Surveyor (LCS) to determine the location of the boundaries of an allotment, including the boundaries of esplanade reserves and esplanade strips.

Council also accepts that the LCS must utilise all necessary information to determine the location of an esplanade reserve/strip boundary. It is anticipated that in the majority of cases the submittal of survey information that identifies the location of the riverbanks and clearly enables determination of the width of the bed of the river at its annual fullest flow without over topping those banks will be sufficient for this purpose. This is the process supported by both the Court of Appeal and High Court decisions relating to the Dewhirst Land Company proceedings and also the Environment Court decision relating to the case Whitby Coastal Estates Ltd v Porirua City Council.

In addition to this it must be acknowledged that, occasionally, as addressed within the Whitby Estates Ltd decision, where the banks of the river are not clearly defined, the LCS will need to utilise hydrological analysis to determine the parameters of the annual fullest flow of the river and whether there is a requirement for creation of an esplanade reserve or an esplanade strip at the location of interest.

Council acknowledges that the impression may have been obtained as a result of some recent subdivision consent applications that the submittal of this level of information was a common requirement of council. However, that has not been the case, especially when the number of subdivision consent applications processed by council where esplanade reserves or esplanade strips are created is taken into account. Nevertheless, I acknowledge there have been sufficient cases to generate concern amongst your members.

To assist in alleviating that concern I would like to outline the process the council's Resource Consents Department is implementing with respect to the processing of subdivision consent applications where the determination of whether an esplanade reserve or esplanade strip is required.

In those cases where the planner processing the subdivision consent application receives survey information confirming the location of esplanade reserve or esplanade strip boundaries, or that a river does not qualify for the creation of an esplanade reserve or esplanade strip, the planner will enlist the council's Subdivision Team to review that information and to confirm the methodology used was appropriate for that particular site. The council's Parks Planning Team will no longer be involved in this aspect of the subdivision consent process.

Where the information submitted is considered to be insufficient the processing planner will request further information as necessary. On rare occasions this may follow a site visit by the planner and identification of a river that may look to qualify for the requirement for an esplanade reserve or esplanade strip to be created.

In those cases where the profile of the riverbanks necessitates it, hydrological analysis submitted or that has been requested to demonstrate the annual fullest flow of the river, will be sent to a suitably qualified and experience expert to review to confirm the methodology and conclusions are sound. The processing planner, in consultation with the Subdivisions Team, will convey the outcome of this review and will ensure that the information submitted is sufficient to enable completion of the processing of the application.

The Parks Planning Team will continue to assess the nature of the esplanade reserve or esplanade strip proposed with respect to any waiver in width requested, the appropriateness of creating an esplanade strip rather than a reserve and to recommend the imposition of any applicable consent conditions.

I have confidence that this process will address the concerns raised and will result in an appropriate methodology to review the information submitted by an LCS to identify whether the provision of esplanade reserves or esplanade strips is necessary or not. Such review of technical information submitted by any expert in relation to a resource consent application is a necessary aspect of council's role in processing an application.

I appreciate that you have suggested a meeting may be worthwhile to clarify each other's roles in this process. After assessing the council's response, if you still consider this is necessary please let me know and I will arrange for the appropriate people from council to arrange and attend a meeting with you.

I hope this information assists.

Yours faithfully



Ian Smallburn  
General Manager | Resource Consents