

IN THE MATTER of the Resource Management Act 1991 ("**the Act**")

AND

IN THE MATTER of a submission pursuant to Clause 6 of Schedule 1 of the Act in respect of the **PROPOSED WAIKATO DISTRICT PLAN**

STATEMENT OF EVIDENCE OF CHRISTOPHER JAMES SCRAFTON ON BEHALF OF POKENO VILLAGE HOLDINGS LIMITED - STAGE 2: NATURAL HAZARDS

1. INTRODUCTION

1.1 My full name is Christopher James Scrafton. I am a Technical Director – Planning in the consultancy firm of Beca.

Qualifications and experience

1.2 I hold the qualifications of a Bachelor of Arts in Geography from the University of Hull (1999), a Postgraduate Certificate in Town Planning from the South Bank University, London (2002) and a Masters in Town Planning from the South Bank University, London (2005). I have over 20 years' experience in town planning.

1.3 I am a full member of the New Zealand Planning Institute and am an accredited Commissioner under the Ministry for the Environment and Local Government New Zealand "Making Good Decisions" 2006 Programme.

1.4 Since coming to New Zealand in 2005 I have held the following positions:

- (a) Senior Planner, Associate at the Consultancy Firm of Harrison Grierson;
- (b) Senior Planner at the consultancy firm MWH¹;
- (c) Principal Planner at the consultancy firm MWH;

¹ Now known as Stantec New Zealand

- (d) Technical Discipline Leader - Planning at the consultancy firm MWH;
and
- (e) Technical Director – Planning at the consultancy firm Beca.

Involvement in planning for Pokeno

1.5 I have been involved in the urban development of Pokeno for over 10 years which has included the following:

- (a) In 2006 to 2008 I was the lead planner in the development of the Pokeno Structure Plan which was adopted by Franklin District Council in 2008;
- (b) I was a lead planner in the development of Plan Change 24 (“PC24”) to the Franklin District Plan which provided the statutory framework for the implementation of the Pokeno Structure Plan;
- (c) I developed and assisted in the implementation of the consultation strategy associated with PC24.
- (d) I was an expert planning witness in the hearings for PC24;
- (e) I led the resource consent process (on behalf of the applicant) for all resource consents required for the implementation of PC24 between 2006 and 2010; and
- (f) In 2017, I led the development of Plan Change 21 (“PC21”) and the associated Assessment of Effects on the Environment (“AEE”) and Section 32 Report on behalf of Pokeno Village Holdings Limited (“PVHL”).

Purpose and scope of evidence

1.6 I have been engaged by PVHL to prepare and present this planning evidence to the Hearings Panel in relation to PVHL’s submission to stage 2 of the Waikato District Plan Review.

1.7 This statement of evidence addresses:

- (a) The importance of integrated stormwater management in urban development.
- (b) Hazard mapping and the benefits of providing for hazard maps as a non-statutory layer within the district planning maps.

1.8 A summary of my evidence is contained in Section 2.

Expert Witness Code of Conduct

1.9 I have read the Code of Conduct for Expert Witnesses, contained in the Environment Court Consolidated Practice Note (2014) and I agree to comply with it. I can confirm that the issues addressed in this statement are within my area of expertise and that in preparing my evidence I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

2. SUMMARY OF EVIDENCE

Integrated Stormwater Management

In my view:

- (a) Catchment Management Plans (CMPs) are a useful tool to support urbanization and to inform Long Term Plans (LTPs) in terms of necessary infrastructure requirements.
- (b) Where a CMP has been developed to support rezoning of land (and considered through a first schedule RMA process), it is appropriate for development within the CMP area to be in general accordance with the CMP. Being in general accordance could include (for example):
 - (i) Design standards for urban development to be included within the provisions;
 - (ii) A requirement for identified stormwater infrastructure to be provided at certain locations

2.2 I do not consider that Policy 15.2.1.15 and the associated rules are sufficient to adequately support a catchment-based approach to stormwater management. My main concerns with Policy 15.2.1.15 are:

- (a) It requires new subdivision and development within floodplains, flood ponding areas and overland flow paths to adopt integrated catchment plan-based stormwater management methods which achieve a number of listed matters. However, there is no guidance in the policy or elsewhere within the PWDP that I am aware of as to what integrated catchment plan-based stormwater management methods

are. In my view, the plan should include guidance as to what Councils expectations are for the development of CMPs.

- (b) Whilst referenced in the policy a CMP is not identified within the information requirements as being required to support new subdivision or development. In my view, a CMP should be a requirement to support urbanization.
- (c) It does not recognize that a catchment-based approach to stormwater management may result in changes to floodplains and overland flowpaths.
- (d) It does not recognize that the minimization of impervious surfaces is not always appropriate or desirable and other approaches to stormwater management may be identified through a CMP process.
- (e) It does not include a requirement for new subdivision or development within new urban areas to have regard to or to be in general accordance with an approved (or adopted) CMP.

Hazard mapping

- 2.3 From my experience the accuracy of floodplain modelling is generally limited by budget, extent of area to be modelled and other matters such as achieving access to private property to ground truth modelling.
- 2.4 Regardless of the accuracy of the modelling undertaken, in my view it still only represents an estimate of the situation at the time the model was undertaken. I consider that it will become more inaccurate as a result of development and changes in the environment. For example the development of a stop bank can have a fundamental change to the extent of a floodplain. In such a scenario, applicants will be required to acquire resource consent (for a discretionary activity) for activities identified within the mapped floodplain which in reality are no longer within a floodplain. I consider this to be inefficient and an unnecessary burden on the community.
- 2.5 To address this issue, PVHL has recommended that the floodplain mapping be retained as a non-statutory layer as opposed to a statutory layer. In my view this approach allows for the floodplain mapping to be updated by Council as required without the need for a first schedule RMA process. To supplement this approach and to provide sufficient technical veracity of changes to floodplain mapping, I would recommend a rule or other method that identifies that a potential applicant is required to provide the Council

with a site specific technical report prepared by a suitably qualified and experienced person to establish the extent, depth and flow characteristics of the floodplain. Where a potential applicant can demonstrate that the floodplain no longer or doesn't apply, the associated provisions of the plan should not apply. I note that a similar approach has been adopted in Auckland and from my experience this approach is an efficient and appropriate method.

- 2.6 In my view, this approach is appropriate as ground proofing of modelling is likely to result in a more accurate assessment of where the floodplain is particularly where a floodplain has changed since the modelling has been embedded in the plan.

3. POKENO VILLAGE HOLDINGS LIMITED SUBMISSION

- 3.1 As set out in its submission, PVHL supports Stage 2 to the Proposed Waikato District Plan (PWDP) subject to amendments to provisions to:

- (a) Recognise and require an integrated catchment management approach to stormwater management;
- (b) Provide greater clarity with regard to information required to support resource consent applications.
- (c) Recognise the complexity associated with hazard mapping.

- 3.2 I discuss each of these points in greater detail below.

4. INTEGRATED STORMWATER MANAGEMENT

- 4.1 Through its submission, PVHL sought:

- (a) Acknowledgement of existing stormwater management plans within the PWDP;
- (b) A catchment wide management approach to stormwater management and flooding risk; and
- (c) Specific guidance on matters to be addressed through a resource consent process with regards to stormwater management.

- 4.2 In my view, Catchment Management Plans (CMPs) are a useful tool to support urbanization and to inform Long Term Plans (LTPs) in terms of necessary infrastructure requirements.

4.3 As set out in the evidence of Ms Paice for hearing 25² in relation to Pokeno, as part of the rezoning hearings a number of site-specific studies of stormwater management have been prepared to support rezoning requests however no catchment wide study has yet been undertaken. Ms Paice considers that this is a gap that could result in either unnecessary infrastructure being constructed, vested and maintained or increased flood risk in catchment.

4.4 To address this issue (in Pokeno) Ms Paice has recommended the development of catchment management plans (CMPs) prior to rezoning³. I concur with Ms Paice's recommendation noting that an integrated management approach to stormwater management is consistent with the requirements of the RPS. Specifically, Section 6.1.8g of the RPS (Information to support new urban development and subdivision) requires information about:

"how stormwater will be managed having regard to a total catchment management approach and low impact design methods."

4.5 In my view, where a CMP has been developed to support rezoning of land (and considered through a first schedule RMA process), it is appropriate for development within the CMP area to be in general accordance with the CMP. Being in general accordance could include (for example):

- (a) Design standards for urban development to be included within the provisions;
- (b) A requirement for identified stormwater infrastructure to be provided at certain locations

4.6 This was the approach adopted by Plan Change 24 to support the urbanization of Pokeno and I note that this approach was supported by Waikato Regional Council (WRC) and Waikato District Council (WDC) at that time.

4.7 I also note that an integrated catchment management plan – stormwater management plan is a requirement identified in the structure plan guidelines to support rezoning for the Auckland Unitary Plan: Operative in Part (AUP:OP).

4.8 The Reporting Officer for hearing 27c notes that:

² Paragraphs 7.2 and 7.3, Statement of Evidence of Dale Sarah Paice, Hearing 25

³ Paragraph 10.5, Statement of Evidence of Dale Sarah Paice, Hearing 25

- (a) The main policy in Chapter 15 which acknowledges the role of catchment management plans is Policy 15.2.1.15⁴;
- (b) In their view, this policy, as part of the PWDP approach to flood risk, does acknowledge catchment management plans generally and supports a catchment wide approach to stormwater management and flood risk⁵;
- (c) It might be useful to refer to catchment management plans already prepared or in preparation in section 15.13 Information Requirements for all resource consent applications addressing natural hazards⁶; and
- (d) The biggest concern with the catchment management plans prepared to date was that many are out of date and have been prepared by a variety of different consultants at different dates using a variety of models, methods and assumptions which had not been recently reviewed⁷.

4.9 With respect to point (c) above, I note that a number of existing CMPs are referenced in the information requirements and I support the acknowledgment of the existing CMPs. However, as discussed below, I consider that more weighting should be afforded to CMPs than “considered as relevant”.

4.10 With respect to points (a) and (b) above, I do not consider that Policy 15.2.1.15 and the associated rules are sufficient to adequately support a catchment-based approach to stormwater management. My main concerns with this approach are that Policy 15.2.1.15 as proposed by the Reporting Officer:

- (a) Requires new subdivision and development within floodplains, flood ponding areas and overland flow paths to adopt integrated catchment plan-based stormwater management methods which achieve a number of listed matters. However, there is no guidance in the policy or elsewhere within the PWDP that I am aware of as to what integrated catchment plan-based stormwater management methods are. In my view, plan should include guidance as to what Councils expectations are for the development of CMPs.

⁴ Paragraph 424, Section 42A Report, Hearing 27c

⁵ Paragraph 425, Section 42A Report, Hearing 27c

⁶ Paragraph 425, Section 42A Report, Hearing 27c

⁷ Paragraph 425, Section 42A Report, Hearing 27c

- (b) Whilst referenced in the policy a CMP is not identified within the information requirements as being required to support new subdivision or development. In my view, a CMP should be a requirement to support urbanization.
- (c) Does not recognize that a catchment-based approach to stormwater management may result in changes to floodplains and overland flowpaths.
- (d) Does not recognize that the minimization of impervious surfaces is not always appropriate or desirable and other approaches to stormwater management may be identified through a CMP process.
- (e) Does not include a requirement for new subdivision or development within new urban areas to have regard to or to be in general accordance with an approved (or adopted) CMP. I consider the approach proposed by the Reporting Officer is inappropriate as:
 - (i) A requirement to consider the CMPs as relevant is not sufficient to ensure that the key components (such as those outlined at paragraph 4.5 above) of the CMPS will be achieved; and
 - (ii) It does not recognize that additional CMPs may be produced to support urbanization for example to support the expansion of Pokeno beyond the urban area considered for the 2010 CMP.

4.11 With respect to 4.7(d) above, I note that the concern raised by the Reporting Officer reflects the fact that to date, CMPs have been prepared in support of urbanization without any guidance being provided by the District Plan. In my view, the concern raised can be addressed by providing more specific guidance within the PWDP with regards to Council's expectations for information requirements for CMPs to support urbanization.

5. HAZARD MAPPING

5.1 In its submission PVHL requested that, at a minimum, non-statutory maps showing areas that warranted natural hazard risk assessments be included in the PWDP noting that providing the maps as non-statutory layers allows for regular updates to the maps to reflect changes in the environment without the need for a first schedule RMA process. In considering this submission point the Reporting Officer notes that:

- (a) In Waikato District, the flood modelling information is not uncertain, which in other places might be a reason to adopt non-statutory maps⁸.
- (b) Placing the flood modelling information on the planning maps gives the community the greatest amount of certainty regarding whether they are in or out of the overlay and therefore whether there are standards to be met or consent required⁹.
- (c) A non-statutory layer is potentially subject to multiple changes, and hence the permitted threshold can change when the maps are tweaked or updated¹⁰
- (d) Allowing the Council to update the flood maps without a statutory process can be problematic in terms of fairness and transparency¹¹.
- (e) A non-statutory layer is overall less appropriate in comparison to a robustly constructed and peer reviewed modelled flood extent placed on the planning maps¹²

5.2 With respect to the accuracy of the WDC floodplain modelling, from my experience the accuracy of such modelling is generally limited by budget, extent of area to be modelled and other matters such as achieving access to private property to ground truth modelling. In this regard, I note from Appendix 4 to the Section 42A Report that the peer review of the modelling considers the modelling to be fit for purpose whilst acknowledging that the model only produces estimates of flooding outside of the river channel under stopbank overtopping conditions¹³. From these comments I am unclear how the Reporting Officer is able to conclude that the model is uncertain.

5.3 Regardless of the accuracy of the modelling undertaken, in my view it still only represents an estimate of the situation at the time the model was undertaken. I consider that it will become more inaccurate as a result of development and changes in the environment. For example, the development of a stop bank can have a fundamental change to the extent of a floodplain. In such a scenario, applicants will be required to acquire resource consent (for a discretionary activity) for activities identified within

⁸ Paragraph 464, Section 42A Report, Hearing 27c

⁹ Paragraph 466, Section 42A Report, Hearing 27c

¹⁰ Paragraph 466, Section 42A Report, Hearing 27c

¹¹ Paragraph 466, Section 42A Report, Hearing 27c

¹² Paragraph 467, Section 42A Report, Hearing 27c

¹³ Page 4, Appendix 4, Section 42A Report, Hearing 27c

the mapped floodplain which in reality are no longer within a floodplain. I consider this to be inefficient and an unnecessary burden on the community.

5.4 To address this issue, PVHL has recommended that the floodplain mapping be retained as a non-statutory layer as opposed to a statutory layer. In my view this approach allows for the floodplain mapping to be updated by Council as required without the need for a first schedule RMA process. To supplement this approach and to provide sufficient technical veracity of changes to floodplain mapping, I would recommend a rule or other method that identifies that a potential applicant is required to provide the Council with a site specific technical report prepared by a suitably qualified and experienced person to establish the extent, depth and flow characteristics of the floodplain. Where a potential applicant can demonstrate that the floodplain doesn't apply, the associated provisions of the plan should not apply. I note that a similar approach has been adopted in Auckland and from my experience this approach is an efficient and appropriate method. I consider this approach to be appropriate as it:

- (a) Avoids the costly first schedule process for minor mapping amendments; and
- (b) Is unlikely to result in any transparency issues as raised by the Reporting Officer. For example, I do not consider that an applicant seeking to update the floodplain mapping could propose to divert the floodplain to a third-party property without having the approval of the third-party. Further to this point, the decision of whether the floodplain mapping requires updating or not would be at the discretion of the Council.

5.5 In my view, this approach is appropriate as ground proofing of modelling is likely to result in a more accurate assessment of where the floodplain is, particularly where a floodplain has changed since the modelling has been embedded in the plan.

Christopher James Scrafton

15 April 2021