

**IN THE MATTER** of the Resource Management Act 1991

**AND**

**IN THE MATTER** of an application for resource consent by Woolworths New Zealand Limited for the construction and operation of a supermarket and associated activities at 58 Great South Road, Pokeno

**STATEMENT OF EVIDENCE OF MIKE SMITH  
ON BEHALF OF WOOLWORTHS NEW ZEALAND LIMITED**

**CIVIL ENGINEERING**

**1. INTRODUCTION**

- 1.1 My name is Mike Smith and I hold the position of director at CivilPlan Consultants Ltd ("**CivilPlan**"). I have held this position for 5 years. Prior to that, I was Engineering Manager of the South Auckland office of Harrison Grierson Consultants and was also a Senior Associate and Principal of the company for 10 years.
- 1.2 I hold a NZCE (civil) from Auckland University of Technology. I am a full chartered member of Engineering New Zealand (CMEngNZ) and the Project Management Institute of New Zealand. CivilPlan is a member of the Association of Consulting Engineers of New Zealand.
- 1.3 I have been involved in civil engineering projects in Pokeno since the conception of the rezoning process by the Pokeno Landowners Consortium. I presented evidence at hearings in support of the district plan changes that have enabled large scale development of Pokeno, including the site that is the subject of this statement. Since then, I have provided engineering services in respect of the design and delivery of around 2,000 residential and industrial lots in Pokeno. I have also been the lead engineer for the civil works involved with

establishing the Hynds pipe manufacturing plant. These projects have entailed many resource consent applications to the regional and district councils.

- 1.4 With respect to this application by Woolworths New Zealand Limited ("**Applicant**") to construct and operate a supermarket (and associated enabling works, including earthworks, cleanfill importation, retaining wall construction and services) ("**Proposal**") on the site at 58 Great South Road, Pokeno ("**Site**"), I prepared the Civil Engineering and Infrastructure Report dated 29 April 2019 and supervised preparation of the Stormwater Report dated 17 July 2019 that accompanied the Assessment of Environmental Effects". I have attended meetings with the Waikato District Council ("**Council**") to discuss the Proposal and have met with Ngāti Tamaoho to discuss the potential for effects on mana whenua values. I have reviewed the Council officer's pre-hearing report ("**Pre-hearing Report**"), the proposed conditions, the Council's Land Development Engineer's memorandum and all submissions.

#### **Code of conduct**

- 1.5 I confirm that I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2014. I have complied with the Code of Conduct in preparing this evidence and will continue to comply with it while giving oral evidence at the hearing. Except where I state that I am relying on the evidence of another person, this written evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

## **2. SCOPE OF EVIDENCE**

- 2.1 This statement of evidence will:
- (a) outline the proposed site works, earthworks, retaining and cleanfill importation;
  - (b) explain the wastewater infrastructure and utility services required by the Proposal;
  - (c) outline the proposed stormwater management strategy and potential for adverse effects in terms of flood risk that may arise from the Proposal;

- (d) respond to the relevant submissions received and the Pre-hearing Report; and
- (e) provide overall conclusions regarding the Proposal.

### **3. SITE WORKS**

- 3.1 Earthworks details are described in Part 3 of the Infrastructure Report.
- 3.2 In short, earthworks will cover the entire Site and most of the contiguous paper road (Wellington Street). Bulk earthworks will consist of 750 m<sup>3</sup> of cut and 15,500 m<sup>3</sup> of fill. The earthworks are necessary to achieve desirable grades for the supermarket carpark, building platform and loading and delivery activities. About 4,000 m<sup>3</sup> of material will be removed from the Site (topsoil) and 23,000 m<sup>3</sup> of clean fill and aggregates will be imported.
- 3.3 There will be three retaining walls, the most significant of which will have a finished maximum height of 6.1m. This will be a mechanically stabilised earth "wall with a 70 degree rake and planted face, located to the rear of the site.
- 3.4 A variety of sediment and erosion control measures are proposed in accordance with Waikato Regional Council's Technical Report 2009/002, Erosion and Sediment Control Guide for Land Disturbing Activities. These include:
  - (a) a stabilised construction entrance;
  - (b) clean water diversion drains (if necessary);
  - (c) catchpit protection;
  - (d) a sediment retention pond;
  - (e) decanting earth bunds; and
  - (f) a silt fence along the northern boundary.
- 3.5 Council's Senior Land Development Engineer, Mr Gatehouse, has proposed conditions of consent to manage the site works. I agree with his proposed conditions, subject to the amendments proposed by Ms Panther Knight.

- 3.6 In my opinion, adherence with the control measures, the earthworks methodology contained in the Infrastructure Report,<sup>1</sup> and the conditions of consent proposed by the Council (as amended by Ms Panther Knight), will ensure that any adverse noise, dust, sediment, or other effects resulting from the works will be less than minor.

#### **4. WATER SUPPLY, WASTEWATER AND UTILITY SERVICES**

- 4.1 In terms of wastewater, the Site can be served by the construction of a new connection from an existing, recently constructed, gravity pipe running parallel to the Site's frontage in Great South Road. The recent and ongoing upgrades to the infrastructure in the Pokeno area have provided sufficient capacity for the anticipated growth in the town centre.
- 4.2 For water, there are existing public bulk mains and fire mains along Great South Road. Pokeno's water services have also been recently upgraded to provide for the anticipated growth. A new extension to the networks is proposed to cross Great South Road and Wellington Street that is suitable to connect the front of the Site.
- 4.3 A suitable power supply point and telecommunications connection for the Proposal will be available following the execution of an agreement between the relevant authority and the Applicant.
- 4.4 I consider that the Proposal can be adequately serviced in terms of wastewater, water and power. Mr Gatehouse agrees.<sup>2</sup>

#### **5. STORMWATER**

- 5.1 Stormwater effects are discussed in CivilPlan's Stormwater Report, I supervised this report and agree with its conclusions.
- 5.2 The Proposal, including the formation of Wellington Street, has the potential to cause adverse effects in terms of runoff quantity and quality. However, these effects will be mitigated by various treatment and storage devices as described

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<sup>1</sup> Infrastructure Report at section 3.2.

<sup>2</sup> Council's Engineering Assessment (Land Use) dated 14 May 2019.

in the Stormwater Report and accompanying drawings. In summary, the proposed management measures are:

- (a) grass swale in Wellington Street for quality treatment and infiltration;
- (b) proprietary device in Wellington Street for quality treatment;
- (c) storage basin for extended detention for Wellington Street runoff;
- (d) detention tank in the Site for extended detention and peak flow mitigation;
- (e) proprietary device in the Site for quality treatment;
- (f) rain garden in the Site for quality treatment and retention; and
- (g) recharge pits at down pipe locations for retention.

5.3 These devices have been designed in accordance with the Regional Council's TR2018/01 and TR2018/02 and the Regional Infrastructure Technical Standard ("**RITS**").

5.4 I note that due to the Site conditions, and the nature of the development, it is not practical to meet the requirements of the Waikato Regional Council LID scoring matrix. This is due in particular to:

- (a) low soakage rates onsite arising from soil conditions;
- (b) geotechnical advice that soakage should not be provided in the fill material and vicinity of the retaining wall; and
- (c) the criteria being designed around subdivisions, rather than a single commercial lot in an urban centre (ie requiring additional space eg for ponds, swales, or revegetation of bush areas).

5.5 In my opinion, the combination of soft engineering (swales, soakage and re-use, for example) and harder options such as tanks and filters has been well reasoned and is the best practicable option for the private and public infrastructure. This is necessary to effectively mitigate the effects of the Proposal in terms of stormwater quality, quantity and on the receiving environment.

## 6. FLOODING EFFECTS

6.1 A hydraulic modelling analysis has been undertaken to ascertain whether the Proposal adversely affects, or is adversely affected by, the floodplain in the northern corner of the Site. Pre and post-development models were run using flow data and upstream and downstream boundary conditions from the Pokeno Catchment Management Plan. The modelling concluded that the proposed fill and retaining wall does not alter the flooding. This is what was expected, as:

- (a) the proposed earthworks only extend slightly into the floodplain, which also narrows downstream of the Site; and
- (b) the floodplain is relatively large, with a significant backwater effect, due to the restriction at the downstream culvert.

6.2 Overall, the flood modelling shows that the Proposal will not impact the adjacent or downstream properties.<sup>3</sup> Mr Gatehouse agrees that there will be less than minor effects.<sup>4</sup>

## 7. RESPONSE TO RELEVANT SUBMISSIONS

7.1 I have read the submissions received in relation to the Proposal and respond to relevant submissions in the following section.

### **Swale**

7.2 One submission in support of the Proposal, received from Tha Mao, raised an objection to the extent of the proposed swale drain in Wellington Street on the basis that this encroaches on the probable access point to a redevelopment of 44 Great South Road.

7.3 I confirm that the swale can be shortened to eliminate the encroachment and consider that this could be addressed at the detailed design stage. Crossings over swales can be easily designed and a standard detail exists for such a circumstance. Condition 12 requires the engineering design plans to ensure that the swale does not impede practical formation of an access to 44 Great

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<sup>3</sup> Stormwater Report at section 8.

<sup>4</sup> Council's Engineering Assessment (Land Use) dated 14 May 2019 at Assessment of Effects.

South Road from Wellington Street. I consider that this is an appropriate condition and will address Mr Mao's concerns.

### **Earthworks**

- 7.4 The submission of Pokeno Bacon raises a concern that its business will be interrupted during construction. As set out above, no more than minor effects are predicted to arise from the Proposal during construction in terms of earthworks, dust, erosion and sediment.
- 7.5 The submission of Kelvin James Norgrove, who shares the western boundary with the Site, requests that potential earthworks be coordinated, and a compatible ground level be created between the two sites. This submission supports the Proposal, and notes that it is anticipated that adequate controls over construction effects will be achieved by the Proposal.
- 7.6 As above, I consider that the potential effects arising from construction are adequately managed through the mitigation measures proposed in the Infrastructure Report, and the conditions of consent as amended by Ms Panther Knight. In terms of the ground level, I do not predict that the ground level sought by the Proposal will affect Mr Norgrove's site.

## **8. RESPONSE TO COUNCIL OFFICER'S PRE-HEARING REPORT**

- 8.1 I have reviewed the Pre-hearing Report. The Council's planner concludes that provided the conditions of consent are complied with:
- (a) the effects associated with the preparatory site works, visual effects of landform modification, dust, sedimentation and erosion will be acceptable; and
  - (b) the effects associated with wastewater, water supply and stormwater can be managed appropriately through conditions of consent.
- 8.2 The only matter that I wish to comment on is at Section 8.6 (Stormwater) of the Pre-hearing Report where it is stated that proprietary devices are not Council's preferred method of stormwater treatment. There is often tension in this area which arises from asset managers' reluctance to accept stormwater treatment devices as Council assets due to:

- (a) ongoing maintenance obligations and the life cycle cost of this;
- (b) Applicants' desires to be responsible in their obligations for mitigation of effects by the provision of appropriate devices;
- (c) iwi expectations in respect of effects mitigation;
- (d) Regional Council requirements under TR2018/01 and TR2018/02; and
- (e) the RITS.

8.3 The reality is that the devices proposed are not difficult to maintain and the suppliers provide maintenance contracts. Notwithstanding this, the Council's stormwater expert, Mr Gatehouse, concludes that the use of the proprietary stormwater device can be worked through at the detailed design stage, and the conditions of consent can address this matter.<sup>5</sup> The Council's planner concludes that as a result, stormwater can be managed appropriately and the effects are acceptable.

8.4 I agree with this approach.

#### **Proposed conditions**

8.5 I have reviewed the Council's draft conditions of consent relating to the parts of the Proposal within my area of expertise. These are similar to the usual suite of conditions received for subdivisions and developments elsewhere in Pokeno that I have been involved with in recent years.

8.6 In my opinion, the draft conditions are reasonable and appropriate, having regard to the proposed amendments sought by the Applicant, appended to Ms Panther Knight's evidence. I endorse Ms Panther Knight's amendments to the conditions where applicable to my area of expertise.

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<sup>5</sup> Council's Engineering Assessment (Land Use) dated 14 May 2019 at Assessment of Effects.

## 9. CONCLUSION

- 9.1 The Proposal is for the establishment of a supermarket on Business zoned land in Pokeno. This involves earthworks and the provision of stormwater, wastewater and water supply services, all of which can be readily achieved.
- 9.2 I consider that any potential, temporary adverse effects arising from noise, dust, and sediment during the construction phase of the earthworks and other civil engineering works can be mitigated by adherence to:
- (a) the CivilPlan drawings;
  - (b) the management plans and methodologies provided in the resource consent application; and
  - (c) the conditions of consent proposed by the Council, as amended by Ms Panther Knight.
- 9.3 Any potential for reduced stormwater quality and increased quantity will be mitigated by the various devices and facilities detailed in the application documents proposed in the conditions.
- 9.4 The potential of the Proposal to affect the prevailing flood regime has been analysed. The modelling indicates that the Proposal does not cause worsening of existing flood characteristics.
- 9.5 Overall, from a civil engineering perspective, the Proposal is quite straightforward and uses proven techniques, technologies and practises in its construction.
- 9.6 Council's Senior Land Development Engineer, Mr Gatehouse, has not expressed any concerns with the civil engineering proposals except for a stormwater treatment device in the road reserve. Mr Gatehouse is satisfied that this matter can be dealt with through the conditions of consent and detailed design and engineering plan approval stage.

**Mike Smith**  
**9 August 2019**