BEFORE AN INDEPENDENT HEARINGS PANEL
OF THE WAIKATO DISTRICT COUNCIL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the proposed Waikato District Plan (Stage 1) Hearing 25

EVIDENCE SUMMARY OF CAMPBELL JAMES MCGREGOR ON BEHALF OF HYNDS PIPE SYSTEMS LIMITED AND THE HYNDS FOUNDATION

STORMWATER

12 May 2021

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1. INTRODUCTION

1.1 My full name is Campbell James McGregor. I am a Technical Director at Harrison Grierson. I have prepared two statements of evidence on behalf Hynds Pipe Systems Limited and the Hynds Foundation (together, **Hynds**) in relation to their submissions/further submissions on the Proposed Waikato District Plan (**Proposed Plan**):

(a) The focus of my evidence dated 17 February 2021 was Hynds' request that the lower portion of its site at 62 Bluff Road (**Expansion Land**) be zoned Heavy Industrial whilst retaining the proposed Rural zone on the upper portion of the land; and

(b) The focus of my evidence dated 17 March 2021 was on the stormwater implications of the submissions lodged by other parties, in particular Havelock Village Limited (**HVL**), seeking that the elevated land above Hynds' site be rezoned from Rural (notified Proposed Plan) to Residential.

1.2 This statement provides a summary of this evidence, and also comments on the rebuttal evidence filed by HVL.

2. SUMMARY OF EVIDENCE

2.1 For both of my statements of evidence I undertook a review of the existing stormwater infrastructure as it relates to the catchments adjacent to and upstream of the existing Hynds Factory Site at 9 McDonald Road and Hynds' site at 62 Bluff Road, and the submissions and further evidence provided by relevant submitters, but in particular HVL.

2.2 In particular I note that a number of the stormwater management devices that were identified as being required following the structure planning process that preceded the current industrial zoning, have either not commenced or have not been completed. As a result access to the Hynds Factory Site has been impacted by flood waters twice since its establishment 7 years ago.

Evidence in support of Hynds' rezoning request

2.3 The Expansion Land is located within a gully. Stormwater flows from the gully pond on 10 and 62 Bluff Road before discharging through the culvert under

State Highway 1 (**SH1**). This ponding occurs because the culvert pipe invert is elevated above the immediate ground upstream of the motorway corridor.

2.4 Developing the Expansion Land will likely require earthworks and infilling of part of the gully. My initial assessment suggests that while the overall discharge volume would increase if the Expansion Land were developed, earlier release of the water to the culvert below would in fact result in a reduction in the peak storage volume (ponding volume) that currently occurs on 10 and 62 Bluff Road.

2.5 In my opinion, any stormwater effects of the rezoning can be mitigated. I recommend that as a part of the resource consent for any future development proposal, a hydrological model is developed to confirm the effects on 62 and 10 Bluff Road (including the Expansion Land), and downstream so that the adverse stormwater effects are appropriately mitigated. The reduction in flood storage area that would result from the development of this land will also need to be assessed as part of any future resource consent application.

2.6 While no public wastewater or water supply networks exist in close proximity to the Expansion Land, should servicing be required, in my opinion these could be provided either through onsite systems or through extension of the existing private networks.

2.7 Having assessed the existing infrastructure and acknowledging further consents will be required in relation to any proposed development, I consider there are no infrastructural constraints that would prohibit the ability to develop the Expansion Land. On this basis I support Hynds' proposed rezoning of the Expansion Land.

Evidence opposing HVL's rezoning request

2.8 In my evidence in chief I identified a number of existing stormwater site constraints previously identified in the Stormwater Catchment Management Plan (**SCMP**) that needed to be rectified prior to HVL's rezoning being approved in order to mitigfatre existing flood risks impacts. These are:

(a) Completion of infrastructure works required under the previous plan change (PC24) to ensure the safe conveyance of stormwater flows and flood waters;

(b) Completion of Pipeline A including vesting of these assets and construction of appropriate inletting structures for the conveyance of stormwater flows from both the Synlait and HVL landholdings;

(c) Confirmation of a viable secondary flow path through the Synlait site to Pipeline A and McDonald Road.

2.9 In my evidence in chief I also raised a number of issues with HVL's proposed stormwater management. First, the original report prepared by Civilplan (as attached to HVL's submission) had adopted an approach to keep all stormwater discharge to predevelopment levels in all storm events up to the 1 in 100-year storm including an allowance for climate change. However, the report did not identify the existing 1 in 100-year flow paths or confirm their ability to cater for existing flooding. I note overland flow paths have now been identified and illustrated by the attached plans within Mr Pitkethley's rebuttal evidence.

2.10 I understand from the rebuttal evidence that was recently filed by Mr Pitkethley on behalf of HVL, that HVL is now proposing to reduce the flow rates from the HVL site to 80% of predevelopment flow rates. This represents a change in thinking and in some way does acknowledge the potential stormwater management risks that I identified in my evidence in chief.

2.11 HVL's original proposal (included in the submission) was to attenuate flood flows by using offline storage through numerous tank systems and/or increased storage within raingardens or online ponds. While technically feasible, I noted in my evidence in chief that that this approach results in a requirement to store significant volumes of surface runoff which could pose a significant engineering challenge. The required storage volume also has the potential to increase by up to 40% should the underlying soils be found to be more permeable than currently assumed.

2.12 The stormwater management approach in Mr Pitkethleys evidence in chief modified the stormwater management approach from what was set out on HVL's submission, recommending the construction of a number of offline detention ponds. While this in my opinion was a more appropriate stormwater management response, the solution lacked detail as to how this might be achieved.

2.13 I note that Mr Pitkethley's rebuttal evidence provides more detail as to the locations and indicative sizing of these offline storage ponds.

2.14 The lower residential yield now sought through HVL's evidence in chief, the commitment in HVL's rebuttal evidence to attenuate flows to 80% of predevelopment flows and the change to the proposed stormwater management approach from that proposed in the original submission, in my view provide a more appropriate solution for servicing the proposed residential zoning.

2.15 However, I remain of the view that a catchment-wide assessment (including hydrological modelling) should be undertaken prior to HVL's rezoning being approved. I explain why further below, with reference to Mr Pitkethley's rebuttal evidence.

3. COMMENTS ON MR PITKETHLEY'S REBUTTAL EVIDENCE

3.1 Mr Pitkethley at paragraph 1.5 of his rebuttal evidence dated 3 May 2021 states he "agrees with the suggestion that for appropriate stormwater management, controls should be considered on a catchment wide basis. Mr Pitkethley then goes onto state he doesn't consider the timing of this "catchment wide analysis" to be related to whether the land should be rezoned or developed.

3.2 Therefore I would summise, the key difference in our assessments is not whether an hydrological model should be prepared, but the timing as to when the catchment wide assessment should occur.

3.3 As I stated in my original evidence, it is not uncommon to adopt the "pre-development flow mitigation" approach Mr Pitkethley is taking in relation to stormwater management.

3.4 It is therefore an assessment of the risk associated with the scale of rezoning and the ability to ensure a catchment wide assessment is completed prior to the implementation of any single resource consent. Allowing deferral of the hydrological modelling often leads to piecemeal approaches at resource consent stage rather than considering the wider catchment as indeed was provided for under PC24. This same point is discussed in the evidence of Ms Paice on behalf of Pokeno Village Holdings Limited who also recommends modelling should be completed in advance of rezoning.

3.5 Mr Pitkethley at paragraph 1.7 states:

> *"If development occurring on the upstream land identified in the SCMP as "rural" manages stormwater so as to replicate predevelopment peak flow rates and to*

control increased runoff volumes (as intended in the HVL strategy), then flooding is not likely to be exacerbated downstream."

3.6 Given we are both of the opinion the modelling is required, in my opinion taking an approach which allows you to better understand the risks now is appropriate. This would then allow you to better understand the potential impacts, rather than assume that "flooding is not likely to be exacerbated downstream".

3.7 Mr Pitkethley then goes on to state in the same paragraph:

"Therefore, any further catchment modelling or update to the current SCMP is not required prior to rezoning because the upstream development will still be in line with the SCMP assumptions."

3.8 While this might be the case, the rest of the catchment is not remaining as it existed under the current SCMP. Other areas are being extensively modified for development under the proposed rezoning hence why I remain of the view conducting a catchment wide analysis of all the proposed rezoning now is the prudent decision.

3.9 Therefore, I remain of the view that calculation and analysis of the proposed stormwater management plan, including hydrological modelling, should be undertaken as part of, or in advance of the rezoning process. This will give confidence the anticipated outcomes are achievable and allow for the planning of mitigation measures to manage any adverse effects. This should include all storm events up to the 1 in 100-year storm event including allowance for climate change for all catchments impacted by the proposed rezoning.

3.10 While I agree with Mr Pitkethley's rebuttal evidence at paragraph 3.13, which states the SCMP works I have identified above require resolution regardless of the rezoning outcome, I do not agree with his statement at paragraph 3.12 that suggests because of the chosen HVL stormwater management strategy and the fact HVL do not rely on the completion of the SCMP works that this is unrelated to the rezoning of the HVL land. This in my opinion does not align with our agreed opinion that a catchment wide approach is best and this is an appropriate way to consider stormwater management and controls.

Campbell James McGregor

12 May 2021