



Memorandum

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Attention: Mr Gary Wilson

Company: N/A

Date: 23.05.2019

From: Dr Vaughan Keesing

Message Ref: Glenfawin, farm, Swamp Road, Hinds.

Dear Gary

Introduction

You have asked me to review the memorandum I provided on 5 March 2019 ("initial report"), containing an assessment of the past and future ecological effects of diverting a drain on your property and the relative efficacy for the purposes of avoiding remedying or mitigating any such effects, of reinstating the previous course or retaining the new alignment. This review is in light of your agreement also to apply for a consent to do activities that would contravene s13 if the drain were treated as meeting the definition of "river". You have asked me to comment on whether this would alter my conclusions as set out in my initial report. I have reviewed the amended application and draft consent conditions you now wish to submit. I also understand that ECan had some criticism of an alleged failure to compare the drain with other comparable ones.

Expertise

My expertise is set out in full in my initial report.

Ecological Assessment

I note that for the purposes of the application it has been assumed that the diverted drain is a modified watercourse and as such meets the definition of "river" for the purposes of s13, I do not argue this point here, but note that I remain sceptical that the "drain" I viewed was in any way a natural watercourse with natural ecological values. The application now seeks to authorise activities that would otherwise contravene s13. This does of itself does not alter the physical characteristics and the ecological effects of the activities that were undertaken and are proposed.

From the revised application I note that a hardened diversion structure is now also included specifically as part of the activities for which consent is sought. I also note that the profile of the "new" alignment is to be modified somewhat to improve carrying capacity and further reduce the risk of erosion.

My assessment of the ecological effects was based on the physical situation and its physical effects. Whether the newly created alignment is treated as a "drain" or a "river" does not alter the physical parameters that will determine the physical ecological effects. In this regard, the hardened structure now specifically included in the application was already in situ when I assessed the physical situation on site during my site visit of Saturday 23rd of February 2019. Its specific inclusion in the application in no way alters what I assessed on site or my conclusions as to ecological effects as set out in my initial report, because those assessed the situation with that structure already in situ.

The only physical change is some additional reshaping of the new channel in order to improve its flood-carrying capacity and make it less prone to erosion. My initial report addressed the effects of bank reshaping, with the only real potential effect being a temporary sediment release during construction and until the new banks “heal”. However, as I had observed, the settling pond and discharge via filtration to the Hinds River would reduce those potential effects to Nil. In this regard, this minor modification of the physical works for which consent is sought will not alter the sediment release-related ecological effects, or any other ecological effects as assessed in my initial report.

I also understand that ECan has voiced some concern about an alleged failure by my initial report to compare the drain in question with other drains. With respect, I do not accept this criticism, or any suggestion that it would somehow undermine my conclusions. For the avoidance of doubt, my initial report sets out my experience, from which it ought to have been clear that I have very considerable practical experience with such types of drains, from which I have an extensive knowledge of similar and comparable drains. I based my initial conclusions on that expertise and knowledge. I remain comfortable with those conclusions and do not consider that the explicit mention of other comparable drains would in any way have altered my conclusions or been necessary to strengthen the basis for those. This is also the position with regards to my conclusions below.

Overall Conclusion

In view of the above, it remains my opinion that:

- The activity undertaken has not caused any lasting ecological damage or loss of any consequence. As a result the overall ecological effects of the works have been minimal.
- The overall adverse ecological effects of the amended application are the physical effects of retaining the new (now present) alignment, with the additional reprofiling now explicitly included. It remains my opinion that these overall effects on the environment will be less than minor and are better than the pre-existing case in terms of overall water quality and the delivery of that water to the Hinds River. A net water quality gain (to the Hinds River) does not require any additional “mitigation” actions such as planting, but the planting plan proposed will provide some further benefits.

It is therefore also my opinion that the adverse ecological effects of the three types of activities for which consent is now sought are less than minor.



Dr Vaughan Keesing

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23.05.2019