Te Tai o Poutini Plan Proposed Plan Proposed Plan **Submission fo** We need your feedback. We want to hear from you on the proposed Te Tai o Poutini Plan. What do you support and what would you like changed? And why? It is just as important to understand what you like in the Proposed Plan as what you don't. Understanding everyone's perspectives is essential for developing a balanced plan. Your details: Surname: Mac Donell First name: Barry Are you submitting as an individual, or on behalf of an organisation? Forest Habitats Limited Organisation (if applicable): No Would you gain an advantage in trade competition through this submission? If you **could** gain an advantage in trade competition through this submission please complete the following: directly affected by an effect of the subject matter of the submission that (a) adversely lam /am not affects the environment; and (b) does not relate to trade competition or the effects of trade competition. Postal address: 17 Cliffs Road St Clair Dunedin 9012 Email: barry@Macdowellcons/hug. co. 12 Phone: 027 228 2386 Signature: MacDall. Date: 12/10/22 Your submission: The specific provisions of the proposal that my submission relates to are: Hazards and Risks Energy Infrastructure and Transport Strategic Direction Subdivision Natural Environment Values Historical and Cultural Values Schedules Zones General District Wide Matters General feedback Appendices All submitters have the opportunity to present their feedback to Commissioners during the hearings process. Hearings are anticipated to be held in the middle of 2023. Please indicate your preferred option below: I do not wish to speak to my submission VI wish to speak to my submission If others make a similar submission, would you consider presenting a joint case with them at a hearing? No, I would not consider presenting a joint case Yes, I would consider presenting a joint case Public information - all information contained in a submission under the Resource Management Act 1991, including names and addresses for service, becomes public information. The content provided in your submission form will be published to the Te Tai o Poutini Plan website and available to the public. It is your responsibility to ensure that your submission does not include any personal information that you do not want published.

Want to know more? www.ttpp.nz 0508 800 118



My submission:

please refer to the attached and engineering report.	/ /
and engineering report.	
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	How to send in your
2	submission form
	Did you know you can complete this submission form online
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	TTPP Submissions PO Box 66
Please attach more pages if required.	Greymouth 7840

Submissions must be made by 5pm, Friday 28th October 2022

Want to know more? www.ttpp.nz 0508 800 118





Our Ref: L24312d

12 September 2022

MacDonell Consulting Ltd 17 Cliffs Road St Clair Dunedin 9012

Dear Barry,

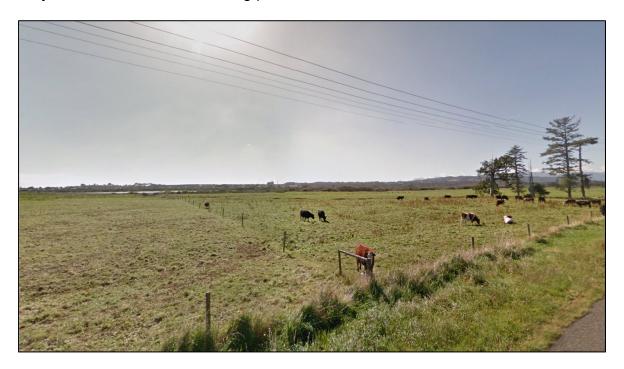
RE: SUBMISSION ON PROPOSED REZONING - TTPP

1.0 Introduction

Further to your request, this office has investigated the potential inundation extent on the property at 117 Arthurstown Road, Hokitika.

2.0 <u>Site</u>

The 100 hectare (or there-about) site is located on either side of Arthurstown Road approximately 1.0 km east of its intersection with Ruatapu Road (SH6), Hokitika. The property is on the southern side of the Hokitika river mouth. The site comprises pastural grazing and is relatively level at an elevation of between around RL3.0m and RL5.0m. The site drains gently towards the north to the Hokitika River. The site is subject to flood inundation during peak river flood flows.



3.0 Potential Inundation

We have reviewed the West Coast Regional Council report Hokitika River Hydraulic Modelling and Flood Hazard Mapping dated 10th June 2020.

https://www.wcrc.govt.nz/repository/libraries/id:2459ikxj617q9ser65rr/hierarchy/Docu ments/Publications/Natural%20Hazard%20Reports/Westland%20District/Hokitika/20 20 LRS Hokitika%20River Hydraulic%20modelling%20and%20flood%20hazard%2 0mapping v2-10-12-2020%20optimized%20for%20web.pdf

Assuming Scenario 6 for the flood mapping reporting, 100 Year, Climate Change Scenario RCP6.0 (2100), 1m Sea Level rise including 400mm of storm surge the site will be in the range of around existing ground level to around 2+m below water during the peak flood flow events.

The topographical survey plan of this site prepared by Chris J Coll Surveying Ltd indicates the majority of the site is around RL3.0m to RL5.0m.

The Hokitika River Flood Modelling report indicates that the November 2018 Flood Debris Levels in the vicinity of the site were to an elevation of RL4.83m, refer Appendix A. Essentially a good part of the site remained flood free during this storm.

The reason for suggesting a conservative flood free building platform level of RL5.5m for future development on this site is that the flood modelling takes into effect sea level rise, global warming and storm surge contemporaneously.

The 1 in 100 year event including climate change (2100) RCP Scenario 6.0 with a 1m sea level rise and 0.4m Storm Surge the site inundates to 0.0m to 2.0+m flood peak depth map, refer Appendix B.

The same West Coast Regional Council flood modelling report defines flood risk on the Hazard Map for most of the site as H1 and H2, generally safe for vehicles, people buildings, and unsafe for small vehicles respectively, refer Appendix C.

The flood depth model was superimposed over the topographical model of the site and flood elevations typically range from around RL4.5m at the western end of the proposed development to around RL5.5m at the eastern end of the proposed development. There are outlier peaks of up to around RL6.0m in certain areas however this is not representative of the RL5.5m average over the site. Refer to Appendix D, Hokitika River Peak Flood Levels, A3-24312 RC GE-08.

Hutchinson Consulting Engineers have also prepared an 'Existing Ground Level above RL4.0m' plan, refer A3-24312 RC GE-09. This plan indicates the land area that is most suitable for development to accommodate platform levels to a minimum elevation of RL5.5m, refer Appendix D.

Finished floor levels of habitable space should be set no lower than RL6.0m however all future building sites should be assessed at the time of future building consent to

assess if the higher modelled flood levels above RL5.5 are applicable to that particular development site. Finished floor levers of future habitable dwellings should be constructed no lower than 500mm above the inundation level for any particular development site.

Given the inundation potential for the site and intended use, the proposed re-zoning is appropriate and the potential flood risk to the building platform activity is low particularly given the building sites will be elevated above the flood risk.

Although the imperviousness of the future sites will increase from pasture to portions of decreased permeability, any adverse effect will be mitigated in that the site is at the lowest portion of the catchment close to the discharge point. Any analysis of increased discharge would be offset by any peak flood flow event being discharged before the time of concentration of the entire catchment is reached. Imperviousness has little effect if the site is theoretically already flooded also.

4.0 <u>Summary</u>

The site is suitable for re-zoning provided flood free building platforms are constructed to a minimum elevation of RL5.5m and any future habitable space is constructed no lower than RL6.0m.

Consideration should be given to certain areas of the site where theoretical flood levels are above RL5.5m and the minimum finished floor levels should be adjusted accordingly.

Should you wish to discuss any aspects of the above information, please contact this office.

We trust this meets with your approval.

Yours faithfully, HUTCHINSON CONSULTING ENGINEERS LTD

Prepared by

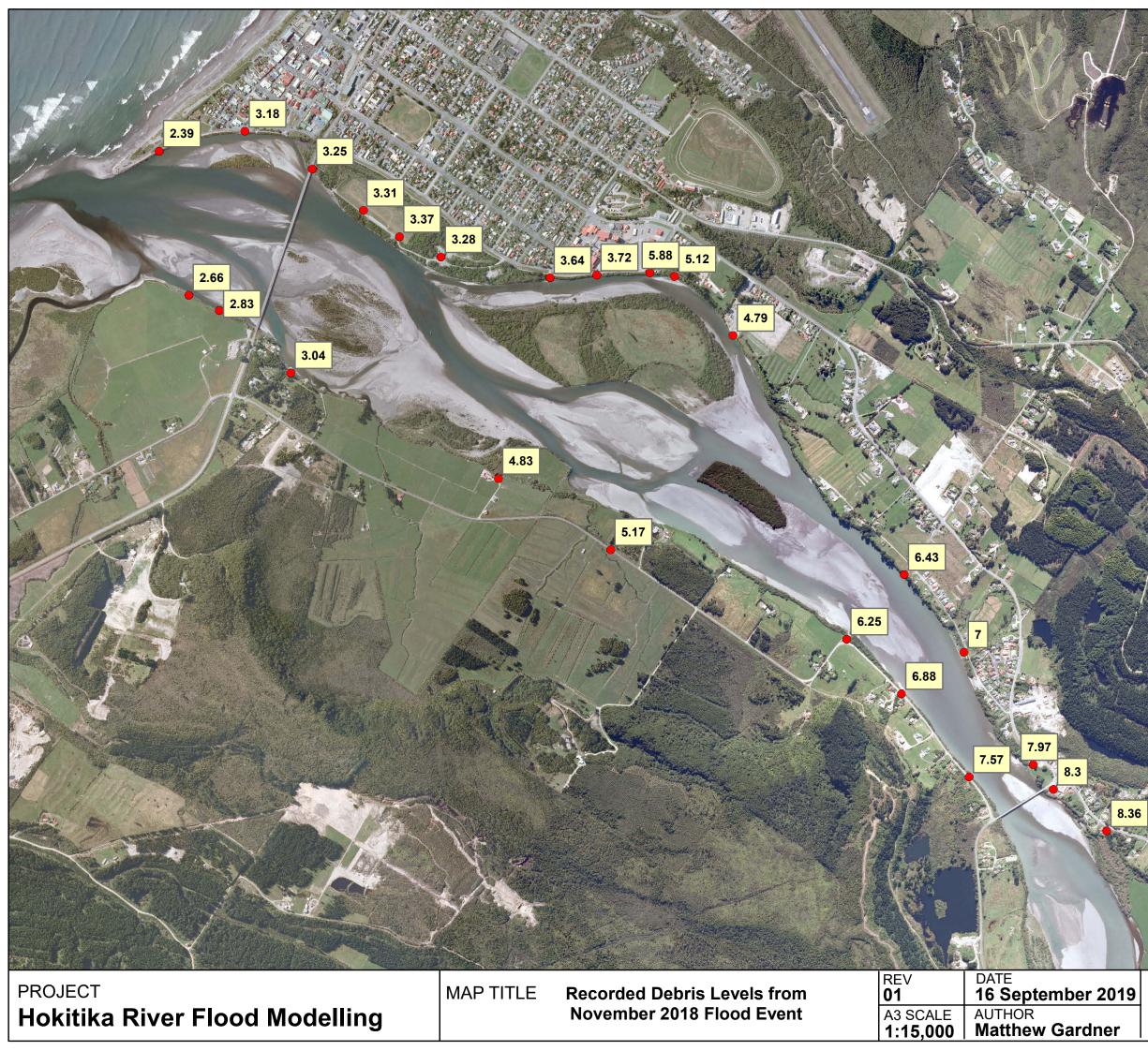
Matt/Symons ENGINEER

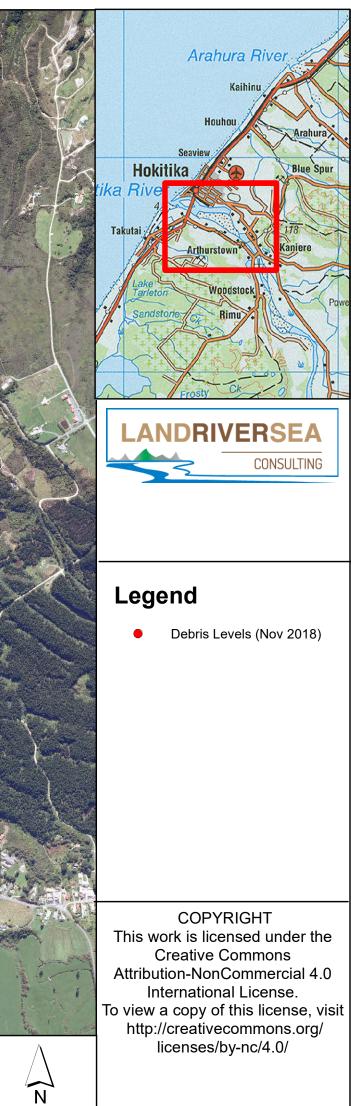
Reviewed by

CIVIL MANAGER

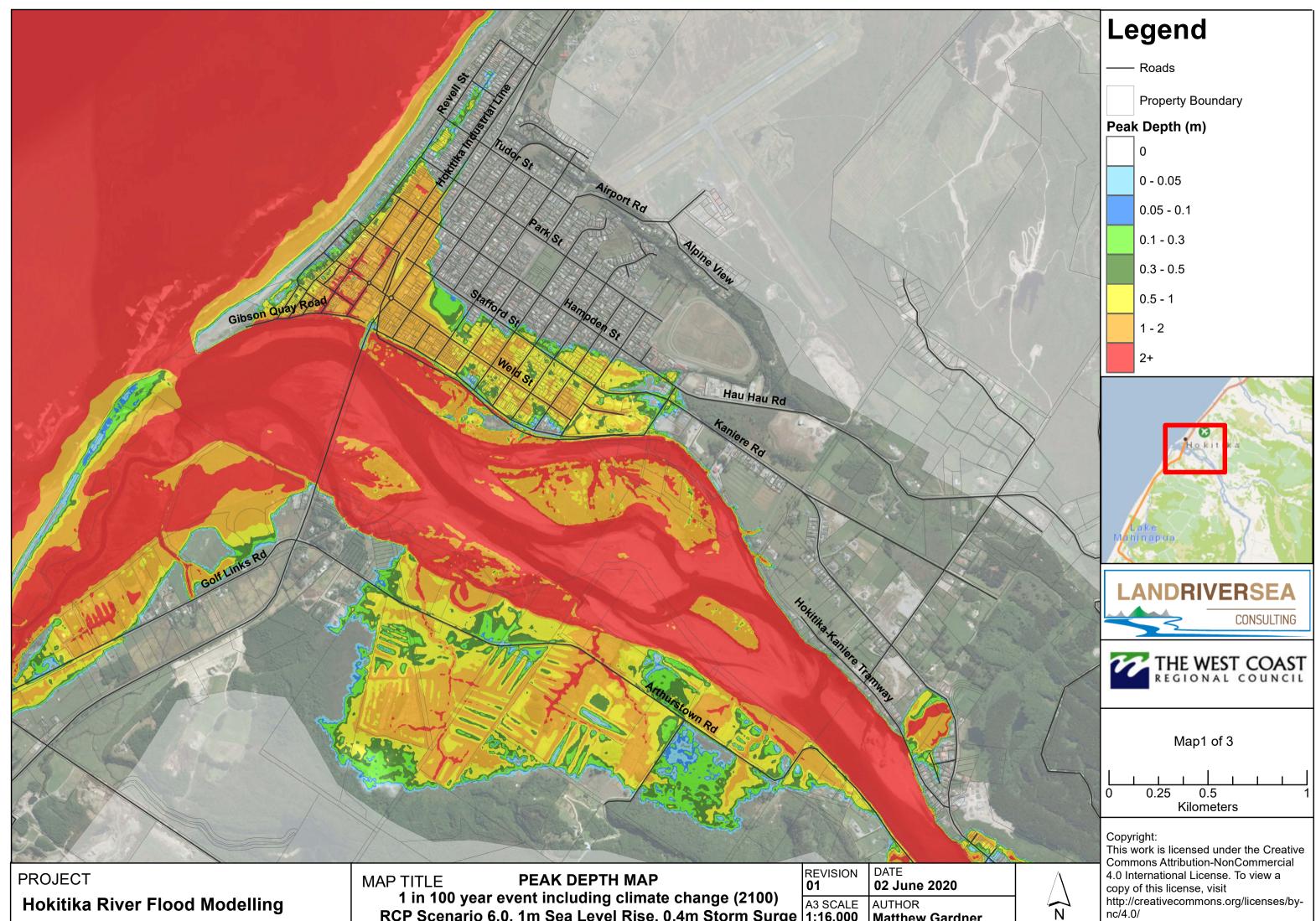
Approved by

Ian Hutchinson MANAGING DIRECTOR APPENDIX A Hokitika River Flood Modelling – Debris Level November 2018 Flood Event





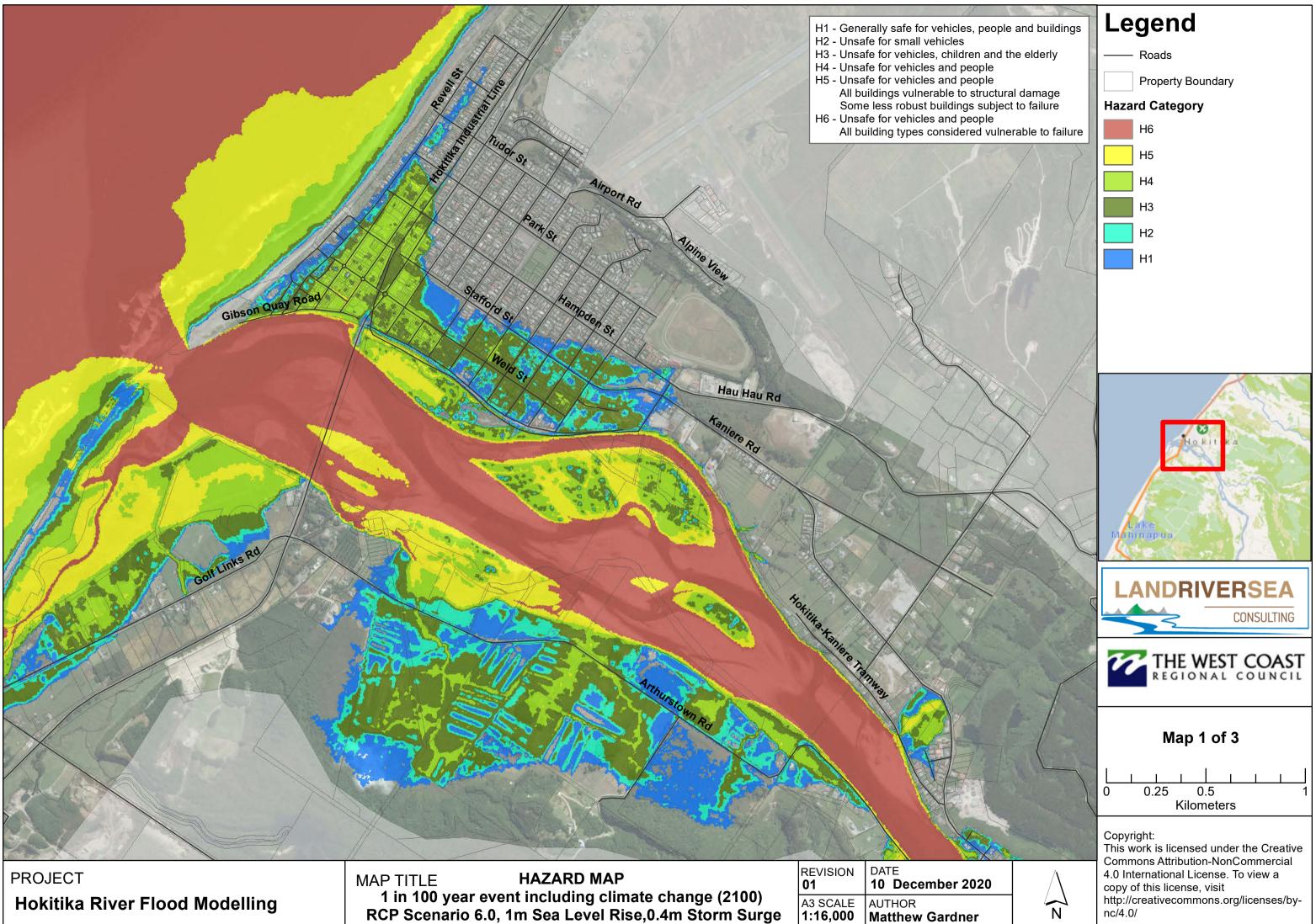
APPENDIX B Hokitika River Flood Modelling – Peak Depth Map



RCP Scenario 6.0, 1m Sea Level Rise, 0.4m Storm Surge 1:16,000

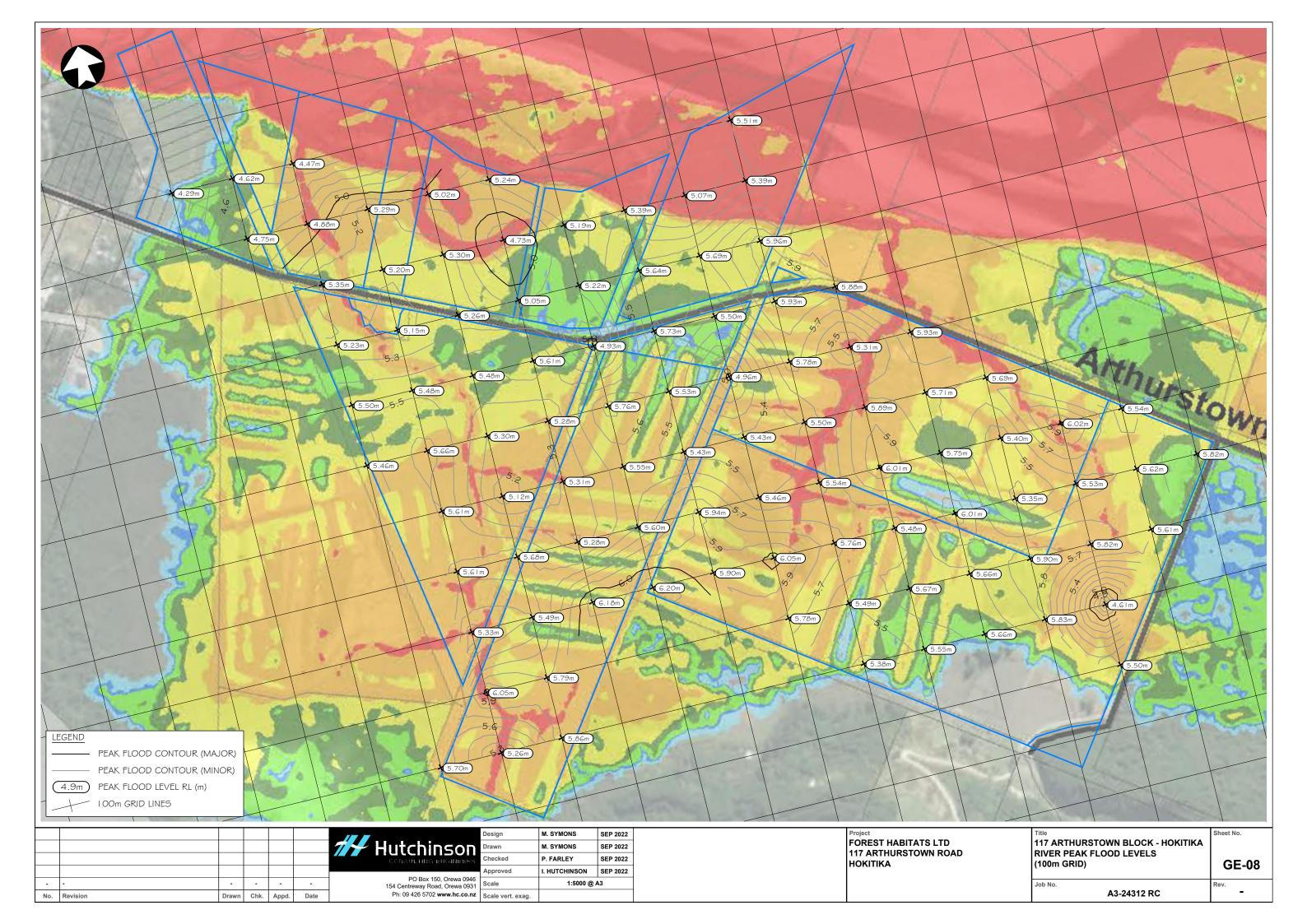
Matthew Gardner

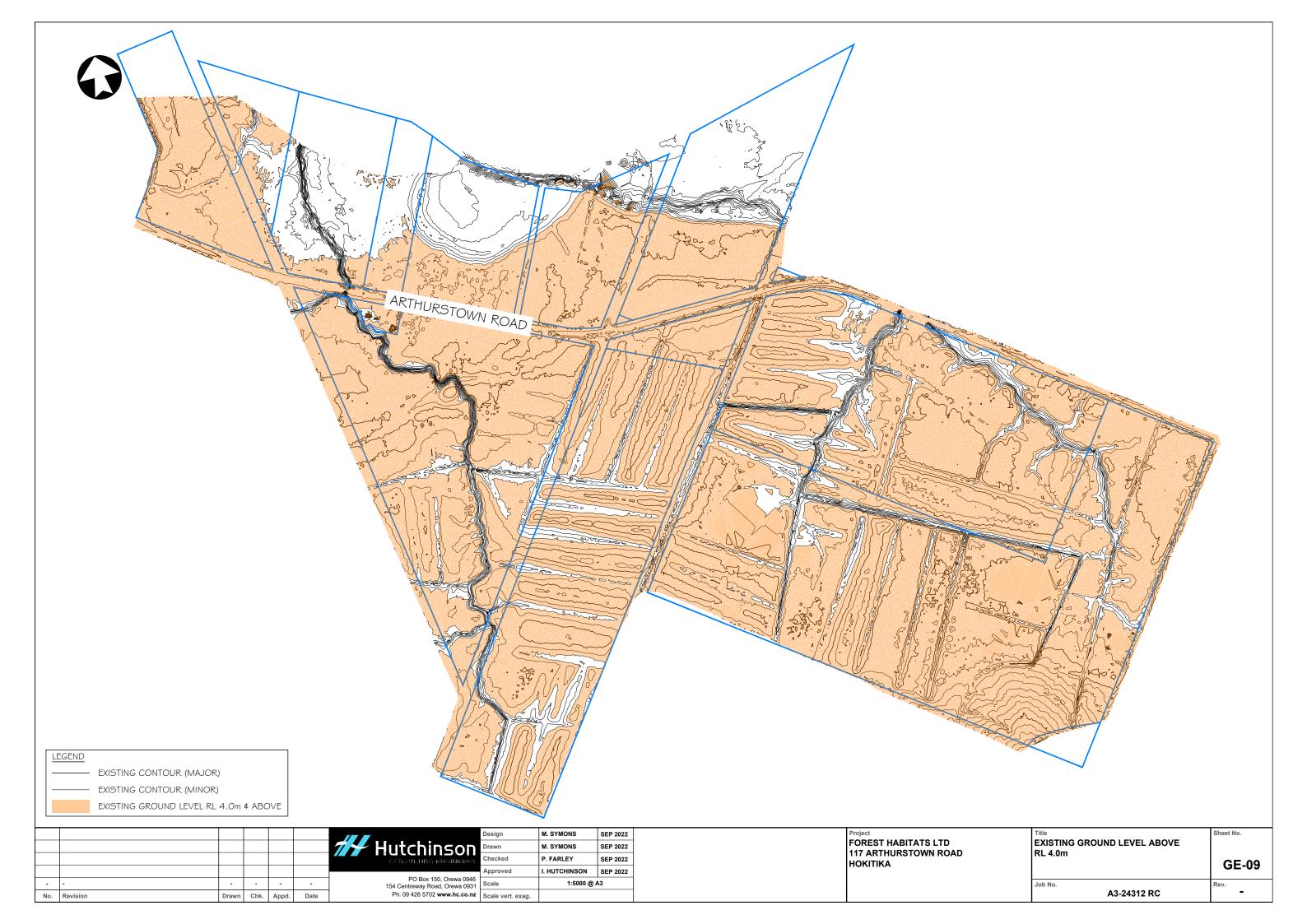
APPENDIX C Hokitika River Flood Modelling – Hazard Map

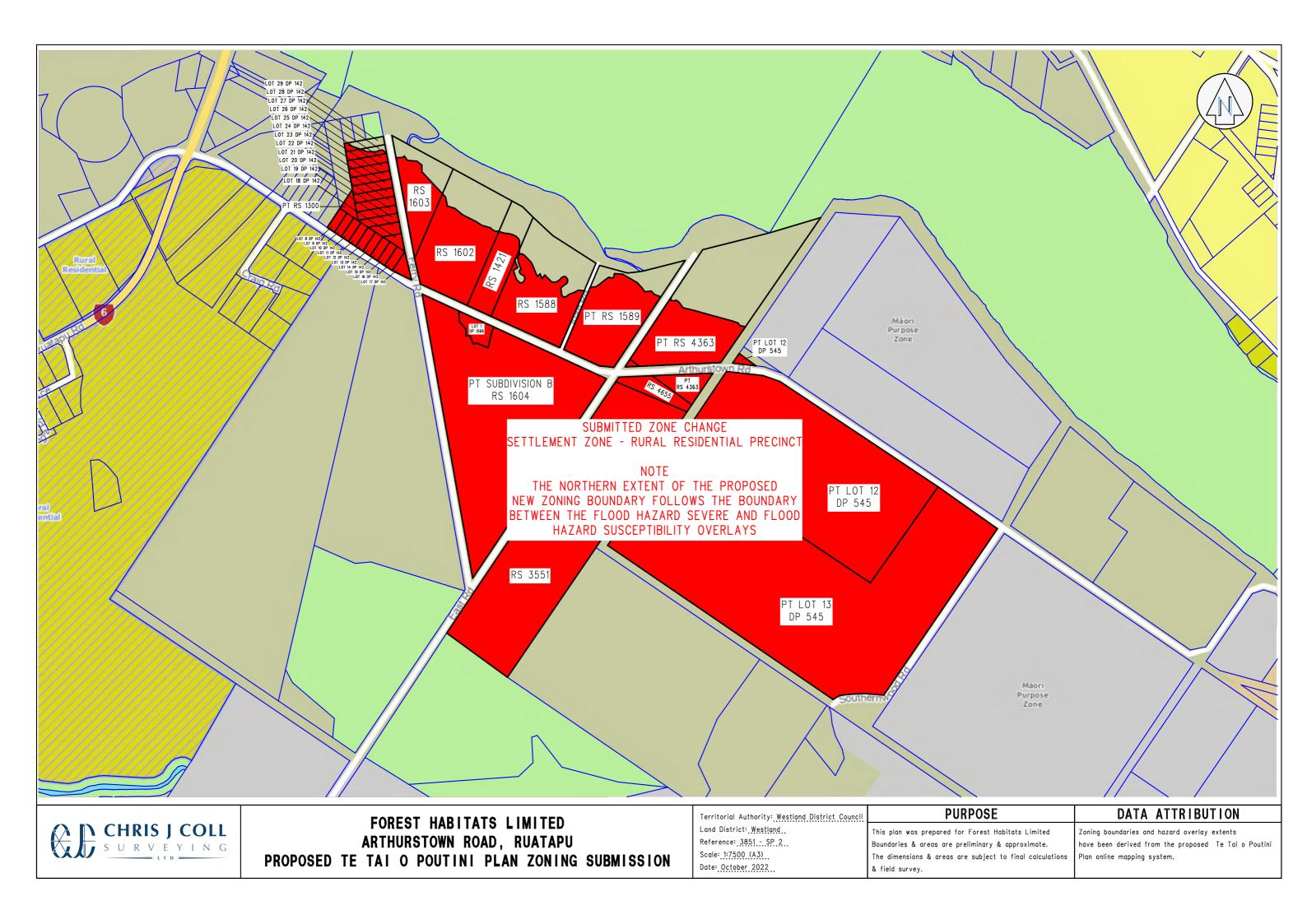


	REVISION 01	DATE 10 December 2020
ļ	A3 SCALE 1:16,000	AUTHOR Matthew Gardner

APPENDIX D Drawings







Proposed Te Tai o Poutini Plan

Submission by: Forest Habitats Ltd

Submitter: S92

117 Arthurstown Road, Hokitika

The submitter requests that the zoning of 117 Arthurstown Road is changed from General Rural to Settlement Zone – Rural Residential Precinct, in accordance with the attached plan. This would allow lots down to 4000 m^2 in size.

<u>Reasons</u>

- The land is of low productive capacity, and is better suited to rural residential living, being close to the township of Hokitika, and adjoining land to the west already proposed to be zoned Settlement Zone Rural Residential Precinct.
- The area proposed for re-zoning is within walking distance of Hokitika.
- The area is in close proximity to the rail trail.
- The attached engineering report confirms that the area is suitable for development with building platforms able to be constructed above the flood plain.
- The area is relatively level and geotechnically suitability for residential building platforms.
- The area has attractive amenity values, with a north facing aspect towards Hokitika.
- Additional higher value rural lifestyle properties here will enhance the rating base, for the benefit of the wider community.

Agent;

Barry MacDonell barry@macdonellconsulting.co.nz

17 Cliffs Road St Clair Dunedin 9012

027 228 2386