## Appendix 3: Provisions cascade for Natural Hazards (Land Stability, Liquefaction & Mine Subsidence)

Objective	Policy	Rules	Assessment Criteria	Other mechanisms
<b>Objective 15.2.1</b> Resilience to natural hazard risk	<ul> <li>Policy 15.2.1.19 – Development on land subject to instability or subsidence</li> <li>(a) Avoid locating new subdivision, use and development, including rezoning, on land assessed as being subject to, or likely to be subject to, instability or subsidence, unless appropriate mitigation is provided and the activity does not increase the risk to people, property or infrastructure.</li> </ul>			
	<ul> <li>Policy 15.2.1.20</li> <li>Development of land in the Mine Subsidence Risk Area</li> <li>(a) On land identified within the Mine Subsidence Risk Area, ensure that: <ul> <li>(i) an assessment by an appropriately qualified</li> <li>engineer occurs before subdivision, use or development takes place to confirm that the land is suitable for development; and</li> </ul> </li> </ul>	<ul> <li>15.11 Mine Subsidence Risk Area</li> <li>15.11.1 Permitted Activities</li> <li>(a) The activities listed below are permitted activities within the Mine Subsidence Risk Area shown on the Planning Maps if they meet the activity specific conditions set out in this table.</li> <li>(b) Activities may also be restricted discretionary activities, as specified in Rules 15.11.2 and 15.11.3.</li> </ul>	Activity-specific conditions	15.14 Definitions Map 20.2

(ii) buildings are designed and constructed, and uses appropriate materials, to effectively minimise the risk of damage to the buildings from ground subsidence.	P1 Additions to an existing building.	<ul> <li>(a) Additions do not increase the gross floor area of the building by more than 15m2; and</li> <li>(b) Additions do not result in the length of any wall of the building exceeding 20m.</li> </ul>	
	P2 Standalone garage	<ul> <li>(a) The gross floor area of the building does not exceed 55m2; and</li> <li>(b) The maximum length of any wall does not exceed 20m.</li> </ul>	
	P3 Construction, replacement, repair, minor upgrading, upgrading or maintenance of utilities <u>and associated</u> <u>earthworks</u> .	Nil	
	P4 Earthworks	<ul> <li>(a) The maximum volume of filling does not exceed 20m3 per site; and</li> <li>(b) The maximum depth of any excavation or filling does not exceed Im above or below ground level.</li> </ul>	
	Rule 15.11.1A Controlled Activities (a) The activity listed below is a		
	Controlled Activity in the Mine Subsidence Risk Area.		

	CI The construction or alteration of a building that is not provided for under Rule 15.11.1 where a Consent Notice is registered against the Record of Title confirming that a geotechnical assessment has been approved at the time of subdivision and the approved geotechnical report confirms that the ground is suitable for development and the development is in accordance with any recommendations of the	Matters of ControlThe requirements and recommendations of the geotechnical report approved at the time of subdivision.That confirmation is provided from a suitably experienced and qualified geotechnical engineer that confirms the proposed development is consistent with the recommendations and requirements of the geotechnical	
	geotechnical report.	report approved at the time of	
		subdivision.	
	15.11.2 Restricted Discretionary Activities		
	(a) The activities listed below are restricted discretionary activities		
	in the Mine Subsidence Risk Area.		
	(b) Discretion to grant or decline		
	consent and impose conditions is		
	restricted to the matters of		
	discretion set out in the following table.		
	RD1 Earthworks that do not comply with Rule 15.11.1 P4.	Discretion is restricted to: (a) Location and scale of earthworks;	

		(b) Geotechnical and geological stability of the site following the	
		completion of earthworks;	
		(c) Risk to people and property	
		from subsidence as a result of	
		earthworks;	
		(d) Any other mitigation measures	
		to reduce risk.	
		Discretion is restricted to:	
	RD2 Construction of a building	(a) Construction standards and	
	or accessory building or the	materials.	
	reconstruction of or additions to an existing building not provided	(b) Suitability of the site for	
	for in Rule 15.11.1 PI-P3 or C1.	<u>development.</u> (c) The potential effects on health	
	(Kainga Ora [2094.9])	and safety.	
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	15.11.3 Discretionary Activities		
	(a) The activities listed below are		
	discretionary activities in the		
	Mine Subsidence Risk Area.		
	DI Construction of a building or		
	additions to an existing building		
	not provided for in Rule		
	<del>15.11.1 PI P3.</del>		
	D21 Subdivision to create one or		
	more additional vacant lot(s)		
	other than a utility allotment,		
	access allotment or subdivision to		
	create a reserve allotment.		
Policy 15.2.1.21			15.14 Definitions
FUILY 13.2.1.21			13.14 Deminicions

Stormwater management in areas subject to risk of land instability or subsidence (a) Avoid discharge of stormwater directly to ground on land that is potentially at risk of land instability or subsidence unless: (i) an assessment has been undertaken by an appropriately qualified geotechnical specialist, indicating that the site is suitable for the proposed discharges; and (ii) any adverse effects on the site and receiving environment can be		
appropriately mitigated.		
Policy 15.2.1.22 Liquefaction susceptible prone	15.12.1 Overview of method 15.12.2 Additional matters of	15.14 Definitions
land risk assessment	restricted discretion for subdivision to create one or more additional	Zones
(a) On land <u>assessed as potentially</u>	vacant lots – liquefaction risk	
susceptible prone to liquefaction,	15.12.3 Additional matters of	
ensure that: (i) an assessment by a geotechnical	restricted discretion for new land use (e.g. multiunit development) –	
specialist occurs before new	liquefaction risk	
subdivision, use or development	15.13 Information requirements for	
takes place; and	all resource consent applications	
(ii) the level of assessment reflects	addressing natural hazards	
the type and scale of the	15.13.1 General	
subdivision, use or development and the overall vulnerability of the	15.13.2 Liquefaction Potential	
activity to the effects of		
liquefaction.		

Policy 15.2.1.23 – Control	
activities on land susceptible to	
damage from liquefaction	
(a) Control subdivision, use and	
development on land assessed as	
being susceptible to liquefaction	
induced ground damage, to ensure	
that appropriate mitigation is	
provided so that the level of risk to	
people, property, infrastructure	
and the environment is acceptable	