

**GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER  
FORM NO 1 – To be submitted with Development Application**

Development Application for – **ARH Warriewood**  
Address of Site – **53C Warriewood Road, Warriewood**

Declaration made by geotechnical engineer or engineering geologist as part of a geotechnical report

I, **Indra Jworchan**, on behalf of **Geotechnique Pty Ltd** on this the **16<sup>th</sup> day of September 2014** certify that I am a geotechnical engineer/engineering geologist as defined by the Geotechnical Risk Management Policy for Pittwater and I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least \$2 million.

Please mark appropriate box

<input checked="" type="checkbox"/>	I have prepared the Geotechnical Report referenced below in accordance with the Australian Geomechanics Society's Geotechnical Risk Management Guidelines and the Pittwater Council Policy
<input checked="" type="checkbox"/>	I am willing to technically verify that the Geotechnical Report referenced below has been prepared in accordance with the Australian Geomechanics Society's Geotechnical Risk Management Guidelines and the Pittwater Council Policy
<input checked="" type="checkbox"/>	I have examined the site and the proposed development plan in detail and am of the opinion that the proposed development site is not within Geotechnical Hazard Zones H1 and H2 indicated on the Pittwater 21 Development Control Plan Map MDCP087. Therefore, a detailed geotechnical investigation report for slope stability assessment is not required for a Development Application stage.
<input type="checkbox"/>	I have provided the coastal process and coastal forces analysis for inclusion in the geotechnical report

Geotechnical Report Details:

Report Title – **Geotechnical Investigation Report Ni 13262/1-AA**  
Report Date – **5 September 2014**  
Author/s – **Indra Jworchan**

Documentation which relate to or are relied upon in report preparation

1. Pittwater Council, Geotechnical Risk Management Policy for Pittwater, December, 2009
2. Australian Geomechanics Society (AGS), Landslide Zoning Working Group, "Guideline for Landslide Susceptibility, Hazard and Risk Zoning for Land Use Planning", Journal and News of Australian Geomechanics Society, Volume 42, No 1, March, 2007.

I am aware that above geotechnical report, prepared for above mentioned site is to be submitted in support of a Development Application for the site and will be relied on by Pittwater Council as basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of structure, taken as at least 100 years unless otherwise stated and justified in the report and that reasonable and practical measures have been identified to remove foreseeable risk.



Signature –  
Name – **Indra Jworchan**  
Chartered Professional Status – **CPEng**  
Membership No - **806995**

**GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER  
FORM NO 1(a) – Checklist of requirements for Geotechnical Risk Management  
Report for Development Application or Part V Assessment**

Development Application for – **ARH Warriewood**  
Address of Site – **53C Warriewood Road, Warriewood**

*The following checklist covers the minimum requirements to be addressed in a Geotechnical Risk Management Geotechnical Report. This checklist is to accompany the Geotechnical Report and its certificate (Form 1).*

Geotechnical Report Details:

Report Title – **Geotechnical Investigation Report No 13262/1-AA**  
Report Date – **5 September 2014**  
Author/s – **Indra Jworchan**

Please mark appropriate box

<input checked="" type="checkbox"/>	Comprehensive site mapping conducted on 27 August 2014
<input checked="" type="checkbox"/>	Mapping details presented on contoured site plan with geomorphic mapping
<input checked="" type="checkbox"/>	Subsurface investigation required
<input type="checkbox"/>	<input checked="" type="checkbox"/> No - Justification
<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes – Dated Conducted 27 August 2014
<input checked="" type="checkbox"/>	Geotechnical model developed and reported as an inferred subsurface type section
<input checked="" type="checkbox"/>	Geotechnical hazards identified
<input type="checkbox"/>	<input checked="" type="checkbox"/> Above the site
<input type="checkbox"/>	<input checked="" type="checkbox"/> On the site
<input type="checkbox"/>	<input checked="" type="checkbox"/> Below the site
<input type="checkbox"/>	<input checked="" type="checkbox"/> Beside the site
<input checked="" type="checkbox"/>	Geotechnical hazards described and reported
<input checked="" type="checkbox"/>	Risk assessment conducted in accordance with Council's policy
<input type="checkbox"/>	<input checked="" type="checkbox"/> Consequences analysis
<input type="checkbox"/>	<input checked="" type="checkbox"/> Frequency analysis
<input checked="" type="checkbox"/>	Risk calculation
<input checked="" type="checkbox"/>	Risk assessment for property conducted in accordance with Council's policy
<input checked="" type="checkbox"/>	Risk assessment for loss of life conducted in accordance with Council's policy
<input checked="" type="checkbox"/>	Assessed risks have been compared to "Acceptable Risk Management" criteria as defined in the Geotechnical Risk Management Policy for Pittwater
<input checked="" type="checkbox"/>	Opinion has been provided that the design can achieve the "Acceptable Risk Management" criteria provided that the specified conditions are achieved
<input checked="" type="checkbox"/>	Design life adopted – 100 years
<input checked="" type="checkbox"/>	Development Conditions to be applied to all four phases as described in Pittwater Geotechnical Risk Management Policy have been specified
<input checked="" type="checkbox"/>	Additional action to remove risk where reasonable and practical have been identified and included in the report

I am aware that Pittwater Council will rely on Geotechnical Report, to which this checklist applies, as the basis for ensuring that the geotechnical risk management aspects of the proposal have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of structure, taken as at least 100 years unless otherwise stated and justified in the report and that reasonable and practical measures have been identified to remove foreseeable risk.



Signature –  
Name – **Indra Jworchan**  
Chartered Professional Status – **CPEng**  
Membership No - **806995**