Table C10: AGS suggested Acceptable qualitative risk to property criteria.

Importance Level of Structure (1)	Suggested Upper Limit of Acceptable Qualitative Risk Property (2)	
	Existing Slope (3) / Existing Development (4)	New Constructed Slope (5) / New Development (6) / Existing Landslide (7)
1	Moderate	Moderate
2	Low	Low
3	Low	Low
4	Very Low	Very Low

Notes:

1. Refer to Appendix A, Practice Note
2. Based on Appendix C, Practice Note
3. "Existing Slopes" in this context are slopes that are not part of a recognizable landslide and have demonstrated non-failure performance over at least several seasons or events of extended adverse weather, usually being a period of at least 10 to 20 years.
4. "Existing Development" includes existing structures, and slopes that have been modified by cut and fill, that are not located on or part of a recognizable landslide and have demonstrated non-failure performance over at least several seasons or events of extended adverse weather, usually being a period of at least 10 to 20 years.
5. "New Constructed Slope" includes any change to existing slopes by cut or fill or changes to existing slopes by new stabilisation works (including replacement of existing retaining walls or replacement of existing stabilisation measures, such as rock bolts or catch fences).
6. "New Development" includes any new structure or change to an existing slope or structure. Where changes to an existing structure or slope result in any cut or fill of less than 1.0 m vertical height from the toe to the crest and this change does not increase the risk, then the Existing Slope / Existing Structure criterion may be adopted. Where changes to an existing structure do not increase the building footprint or do not result in an overall change in footing loads, then the Existing Development criterion may be adopted.
7. "Existing Landslides" have been considered likely to require remedial works and hence would become a New Constructed Slope and require the lower risk. Even where remedial works are not required per se, it would be reasonable expectation of the public for a known landslide to be assessed to the lower risk category as a matter of "public safety".

Tolerable risk levels would be one class higher (for example Moderate where Low is acceptable). Consideration should be given by regulators to adopting Tolerable risk to property for Existing Slope and Existing Development situations in a similar vein to the recommended differentiation for risk to life.

C9 RISK MANAGEMENT

C9.1 RISK MITIGATION PRINCIPLES

The principal aim of the risk mitigation measures should be to reduce risk, to engineer out uncertainty in the risk and to provide a level of risk satisfying community expectations through the regulator's criteria once properly implemented.

Not all options for risk control methods will be feasible or appropriate for each project/ circumstance.

The issue of whether residual risk (after implementation of risk mitigation measures) is tolerable or acceptable (as appropriate) should take into account the ALARP principle. ANCOLD (2003) defines ALARP (As Low As Reasonably Practicable) principle as "that principle which states that risks, lower than the limit of tolerability, are tolerable only if risk reduction is impracticable or if its cost is grossly disproportionate (depending on level of risk) to the improvement gained." Note that ANCOLD (2003) adopts tolerable risk criteria; where an acceptable risk criterion is adopted, then "acceptable" would replace "tolerable" in that definition. Putting this principle in another way, if risk can be reasonably and cost effectively reduced further than the acceptability criterion, then the additional risk mitigation measures should be adopted also.

Risk control measures are likely to require on-going maintenance in most, if not all, instances.

Detailed specification of the design, construction and maintenance criteria for each risk treatment measure should be appropriately specified or addressed. Feedback is essential throughout the design and construction process to enable re-evaluation of the assessment as appropriate.

C9.2 SITE SPECIFIC DEVELOPMENT CONDITIONS

Site specific development conditions need to be determined such that risk levels are reduced to satisfy the regulator's criteria. They need to take into account uncertainties and limitations of design and construction.