Part FMU/catchment (Rural)	A. CLM modelled sediment load reduction from PC1 (notified version)[1]	B. Reduction from 'baseline'[2] visual clarity state required to achieve TAS[3], as notified (difference from modelled, col. A)	C. Reduction required from 'baseline' visual clarity state required to achieve TAS, as revised[4] (difference from PC1 CLM notified, col. A)	D. CLM modelled sediment load reduction for FEP provisional scenario 1 – 30%[5]. Compared against the 'baseline' visual clarity state required to achieve TAS, as revised (col. C) (difference from modelled)	E. CLM modelled sediment load reduction for FEP provisional scenario 1 – 40%[5]. Compared against the 'baseline' visual clarity state required to achieve TAS, as revised (col. C) (difference from modelled)	F. CLM modelled sediment load reduction for WRECI provisional scenario 2[6]. Compared against the 'baseline' visual clarity state required to achieve TAS, as revised (col. C), (difference from modelled)
Takapū (Pāuatahanui Stream at Elmwood)	-18%	-24% (+6%)	-26% (+8%)	-18% (+8%)	-23% (+3%)	-8% (+18%)
Te Awa Kairanga rural streams and rural mainstems (Mangaroa at Te Marua)	-20%	-51% (+31%)	-17% (-3%)	-9% (+6%)	-12% (+5%)	-17% (0%)
Te Awa Kairangi lower mainstem (Hutt River at Boulcott)	-6%	-24% (+18%)	-25% (+19%)	-8% (+17%)	-11% (+14%)	-5% (+20%)
Wainuiomata Rural streams (Wainuiomata River downstream of White Bridge)	-4%	-7% (+3%)	-8% (+4%)	-6% (+2%)	-8% (0%)	-4% (+4%)
Parangārehu catchment streams and south-west coast rural streams (Mākara at Kennels)	-38%	-34% (-4%)	-38% (0%)	-22% (+16%)	-29% (+9%)	-22% (+16%)

Advice Note: Columns A – C consider the notified PC1 rural provisions (excluding forestry and earthworks) as modelled in CLM, against the notified visual clarity TAS and revised versions in HS2. Additional sediment reductions (not modelled) are expected from forestry and earthworks provisions. Columns D to F present the provisional scenarios modelled in CLM to support the HS3 S42a revised provisions. Columns D and E are Provisional Scenario 1 (Farm Environment Plans), Column F is Provisional Scenario 2 (WRECI planting and stock exclusion). The modelled load reductions for rural provisions are compared against the *revised* sediment load reductions to meet visual clarity TAS from HS2 in Columns C - F. Red text in brackets indicates provisions may **not meet** the HS2 revised load reductions to achieve TAS, Blue text in brackets indicates provisions **may meet** the HS2 revised load reductions to achieve TAS.

[1] Contaminant Load Modelling (CLM) as presented in HS3 Technical Evidence of James Blyth, Appendix A – CLM Memo, Table 12. CLM Modelling for rural catchments *excludes* any benefit from forestry and earthworks provisions. Effectiveness of forestry provisions was not modelled (to align CLM to the calibrated sediment model in the Source modelling of TAoP, that informed the TAS setting process). Table 3 in HS3 Technical Evidence of James Blyth (farming and forestry sediment loads) provides context on landuse proportions (rural and forestry) relative to TAS catchments – lower proportions of forestry would indicate greater effort is required on rural (pastoral) land to meet the TAS. Section 4.4.2 of the CLM memo details the rural provisions modelled in notified PC1, including space/pole planting, retirement and stock exclusion/fencing.

[2] Baseline refers to the median visual clarity state for fine suspended sediment over 2012-2017, as required in the NPS-FM 2020.

[3] Target Attribute State (TAS) for visual clarity as per Tables 8.5 and 9.4 of notified PC1

[4] Revised sediment reductions to meet visual clarity TAS based on a longer monitoring record and new site relationships, as presented in HS2 Technical Visual Clarity Evidence of James Blyth, Table 4 and Table 5.

[5] As presented in HS3 Technical Evidence of James Blyth, Appendix B – Provisional PC1 Rural Sediment Scenarios Table 2. Farm Environment Plans (FEP) effectiveness is uncertain and site specific, this scenario considered generic sediment reductions at the property scale from 10% to 40% when applied on pastoral properties >20 ha. Column D and E present results from reduction of sediment (all sources) at 30-40% from the FEPs. No additional benefits from forestry or earthworks provisions were modelled. This would apply to ~146 properties, representing 65% of all pastoral land in PC1 (16,461 ha of 25,434 ha).

[6] As presented in HS3 Technical Evidence of James Blyth, Appendix B – Table 4. Provisional Scenario 2 – Current Funding Level (CFL) reflects the ongoing activities of ~130 ha/year of native revegetation as part of the Wellington Region Erosion Control Initiative (WRECI) to 2040, equivalent to 1916 ha of native revegetation. This has been applied to the top 10th percentile potential erosion risk land. In addition, this scenario also includes reductions in load from stock exclusion provisions, but no additional benefits from forestry, earthworks or FEP's.