

Estimate of costs for sediment retention and soil redistribution for Commercial Vegetable Production (CVP)

Part of case study of costs for Balle Bros BRIEXX property Pukekawa

CAPITAL WORKS

PADDOCK PERIMETER BUNDING

20-ton Excavator hire @\$155 hour

Average construction rate of 50 metres per hour

Total length of Bunding on BRIEXX property of 7.8 km

156 hours @\$155 = \$24,700

SEDIMENT RETENTION PONDS

20-ton Excavator hire @\$155 hour

Labour to install decanting devices \$75 hour

Average machine time for pond construction 6 hours per pond = \$930

Average labour in obtaining and installing materials for decant devices 4 hours per pond = \$300

Average material cost per pond \$1,100

Total average cost per pond \$2,330

20 ponds @ \$2330 =\$46,400

TOTAL CAPITAL COST (at property level) \$71,300 plus GST

TOTAL HECTARES 35.66

TOTAL COST PER HA \$1999.43 (say \$2000)

MAINTENANCE WORKS

POND CLEANING (estimate of one clean per annum)

20-ton Excavator hire @\$155 hour

3 hours per pond

Total average cost per pond \$465

SOIL REDISTRIBUTION (Good management practice encourages this activity after crop removal in dry summer/autumn condition to minimise topsoil compaction)

20-ton Excavator hire @\$155 hour

2 x 150 hp tractor and 8m³ scoop @ \$160 hr

Estimate 2 hours per pond total cost \$950 per pond

20 ponds @ \$1465 per pond = \$28,300 divided by 33.65 ha = \$841 per ha

WHEEL TRACK RIPPING

Cost estimate \$120 per ha

TOTAL COST OF MITIGATIONS AND MAINTENANCE AT PROPERTY LEVEL PER ANNUM

\$961 per hectare

** The author has sought advice from the construction industry for stormwater and sediment control on subdivision, land development and roading projects.

Typical costs per detention pond construction in this sector are in the order of \$30-40,000 per pond. Other costs such as bunding is far in excess of the cost estimates described above.

The soil and sediment control guidelines developed by growers and the Franklin Sustainability Project (as described in the costings above) still impose significant costs for growers but are very positive from an environmental and sustainability perspective.

Please refer to the Sustainable Farming Fund project '**Don't Muddy the Waters**' for more information on this subject.

If the Commercial Vegetable Growing (CVP) sector were forced down a regulatory pathway which enforced growers to construct sediment detention systems, such as the Construction sector typically employ then the cost imposition would wipe out the CVP sector.