

QUARRY REVEGETATION PROJECT

Q.1 What is the goal of the Quarry Revegetation Project?

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Q.2 Why is this an important project?

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Q.3 Measure 15 trees, record their heights in metres, and make notes on their general condition.

| Tree Number Group 1:1-15 Group 2:16-30 | Height (m) | General condition of tree Note number & condition of leaves, any fruit, evidence of stress, insect attack, etc |
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Q.4 On the graph on the next page, chart the growth of these 5 trees.

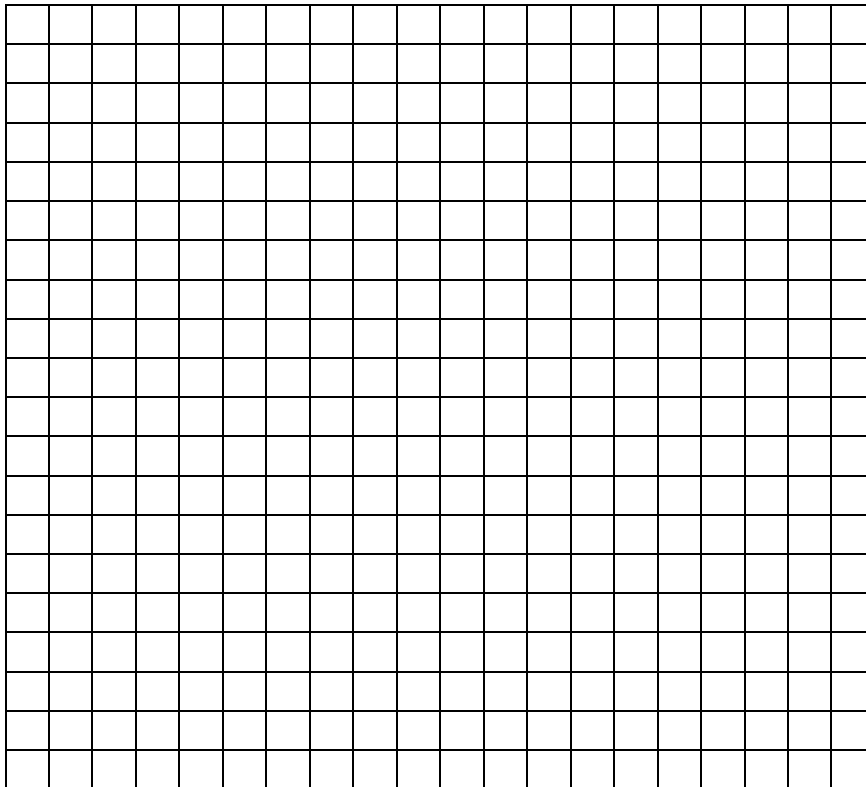
| Tree No. | Botanical name | Key | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|----------|------------------------|---------|--|------|------|------|------|------|------|------|
| 1 | Rhus taitensis | ----- | All trees were when painted >1m tall | 1.9 | 3.4 | 3.7 | 4.3 | 4.3 | 4.55 | |
| 3 | Trema tomentosa | | | 1.5 | 2.5 | 2.3 | 2.2 | 2.4 | 2.2 | |
| 4 | Cardwellia sublimis | ---- | | 1.2 | 2.15 | 2.8 | 3.9 | 4.2 | 5.4 | |
| 7 | Diplogottis spp | ..--..- | | 0.51 | 1.8 | 1.2 | 1.25 | 1.2 | 1.1 | |
| 15 | Chionanthus ramiflorus | ...--.. | | 1.58 | 2.3 | 3.1 | 3.6 | 3.8 | 4.5 | |

This rainfall data will be useful for Questions 5-7

| | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec | Annual |
|---------------|--------|--------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|--------|
| 1997 | 369.5 | * | 289.5 | 55.5 | 118.0 | 23.0 | 0.0 | 53.0 | 235.5 | 25.0 | 23.0 | 299.0 | * |
| 1998 | 1766.0 | * | | | | | | 402.2 | 198.2 | 202.8 | 292.5 | 229.0 | * |
| 1999 | 535.2 | 405.6 | 378.7 | 151.4 | 56.7 | 29.7 | 33.0 | 23.6 | 31.0 | 83.6 | 795.0 | 264.1 | 2787.6 |
| 2000 | 168.1 | 1154.9 | 674.6 | 447.4 | 57.2 | 96.3 | 2.1 | 38.8 | 1.8 | 223.8 | 650.8 | 333.7 | 3849.5 |
| 2001 | 94.5 | 957.8 | 282.1 | 136.1 | 0.4 | 107.5 | 51.0 | 7.2 | 48.9 | 68.5 | 220.3 | 165.8 | 2140.1 |
| 2002 | 172.4 | 976.0 | 76.3 | 123.3 | 24.4 | 43.6 | 1.4 | 49.5 | 8.5 | 4.7 | 27.4 | 62.9 | 1570.4 |
| 2003 | 136.8 | 412.5 | 117.6 | 45.3 | 84.6 | 84.8 | 17.6 | 27.0 | 8.9 | 73.2 | * | | |
| Median | 358.0 | 484.5 | 297.1 | 144.9 | 76.5 | 43.6 | 30.8 | 34.8 | 21.3 | 68.3 | 126.7 | 183.5 | 2354.5 |

* Blank spaces indicate data not supplied by recording station

Tree Height
(metre)



Years (1997-2005)

Q.5 From the graph in Q.4, what general comments can you make about the condition of these five trees?

- a) Trees 1,4 and 15.....
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- b) Trees 3 and 7
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Q.6 Trees 3, 14 and 17 are all the same species – *Trema tomentosa*. Is this species currently performing successfully?

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If another revegetation project was started in Paluma, should this species be considered for inclusion?

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Q.7 Given that all trees were planted at the same time and have all been maintained in the same way, what factors could possibly affect the success rate of individual trees in this project?