

8. Restoration zoning

Management of the Kate Valley CMA will be based on seven management zones (Fig. 1). Each zone has different attributes, restoration goals and management actions which are summarised in this section (Table 2).

Table 2. Summary of restoration actions by zone

Management action	Zone	1	2	3	4	5	6	7
Planting of black beech		•	•					
Planting of forest species		•	•			•		
Planting of wetland species			•	•				
Plant and animal pest control		•	•	•	•	•	•	•
Natural regeneration		•	•	•	•	•	•	•
Monitoring		•	•	•	•	•	•	•
Recreational access			•		•	•		

8.1 Zone 1 (black beech Remnant "B")

Description: This zone (8 ha) comprises the black beech remnant known as remnant "B" and a small area of shrubland and pasture around this.

Goal: Enhancing the existing black beech remnant.

Management actions: Additional plantings of black beech both within the remnant and on adjacent sites, as well as plantings of other indigenous species (e.g., kanuka, mahoe, fivefinger, kohuhu) into adjacent pasture areas.

8.2 Zone 2 (inland faces including Ella Pond SNA)

Description: This is a large area (107.5 ha) encompassing the faces from remnant "B" around to and including Ella Pond SNA. The area is characterised by substantial patches of regenerating kanuka forest with pasture between. Some areas of gorse are also present.

Goal: Reconnect the existing forest remnants through active restoration and natural regeneration so that there is continuous forest between remnant "B" and Ella Bush SNA. Establish a second population of black beech.

Management actions: Restoration work will focus on connecting the existing patches of regenerating forest by planting fast growing indigenous species into pasture areas and encouraging natural regeneration. Species choice for plantings will depend on site, with species such as kanuka, mahoe, five-finger, lemonwood and kohuhu planted on the faces, kowhai, kaikamako, kahikatea and ngaio on the lower slopes and valley bottoms, and harakeke (flax) in the wettest sites. Totara and matai will also be planted into these areas, as well as into existing regenerating forest. Indigenous species will be planted into areas of gorse regeneration as required. In addition a site will be selected for establishing a second population of black beech which will then be planted.

8.3 Zone 3 (Kate Valley flats)

Description: This small unit (17.2 ha) comprises the flat valley floor of the middle reaches of Kate Valley stream. These flats were probably formed when the Ella Ponds landslide dammed Kate Valley, creating a wetland system up-stream of the landslide. Farm management activities have resulted in the stream being realigned and drainage ditches created, but the area still supports wet grassland.

Goal: Active restoration of the Kate Valley wetland.

Management actions: Landfill management will result in the establishment of a weir at the end of this area which will result in wetter conditions over much of this site. Restoration will then focus on actively restoring wetland vegetation dominated by herbaceous species such as harakeke and purei, with appropriate marginal woody vegetation (e.g., kahikatea, manuka, korimiko and cabbage tree). The possibility of reinstating the meandering course of the Kate Valley stream will be evaluated.

8.4 Zone 4 (coastal faces including Ella Bush SNA)

Description: The lower part of Kate Valley including the Ella Bush SNA and the coastal faces around to Ella Peak Scenic Reserve (142 ha). The current vegetation is a mixture of regenerating forest (mainly centred on Ella Bush SNA) and pasture covered faces. Moderate amounts of native shrubland and gorse are present amongst the pasture.

Goal: Facilitate natural regeneration to native forest.

Management actions: Restoration work will involve animal and plant pest control only, allowing forest regeneration to otherwise occur naturally. Gorse will be allowed to invade pasture areas as it provides a good nurse for indigenous regeneration.

8.5 Zone 5 (lower Kate Valley)

Description: This small zone (14 ha) encompasses the lowermost part of Kate Valley to the coast. The vegetation here has a strong coastal component with ngaio and golden akeake prominent in the main forest remnants.

Goal: Actively re-establish a riparian corridor up the stream from the coast connecting through to Ella Bush SNA and Zone 4.

Management actions: Active planting of appropriate coastal forest species such as ngaio and golden akeake to establish a riparian forest between the coast and Ella Bush SNA.

8.6 Zone 6 (inland faces south of Remnant "B")

Description: The south facing slopes between Zone 1 and Kate Valley stream (61 ha). The current vegetation is a mixture of pasture and shrubland with kanuka prominent.

Goal: Facilitate natural regeneration to native forest.

Management actions: Restoration work will involve animal and plant pest control only, allowing forest regeneration to otherwise occur naturally. Gorse will be allowed to invade pasture areas as it provides a good nurse for indigenous regeneration.

8.7 Zone 7 (Selby Road faces)

Description: North facing slopes with a strong shrubland component (71.5 ha).

Goal: Facilitate natural regeneration to native forest.

Management actions: Restoration work will involve animal and plant pest control only, allowing forest regeneration to otherwise occur naturally. Gorse will be allowed to invade pasture areas as it provides a good nurse for indigenous regeneration.

8.8 Time line

The following timeline indicates the activities that will be undertaken during the first five years of the restoration. Full details will be included in the annual restoration work plans.

Year 0 (2004-05)

Management planning

Prepare Year 1 (2005-06) CMA work plan.

Initial meeting of CMA Advisory Group.

Monitoring

Remeasure photopoints.

Establish initial permanent plots.

Establish bird monitoring lines.

Plant and animal pest control

Complete all fencing to secure CMA and remove all domestic stock.

Survey CMA for priority weeds to be controlled in next year.

Continue with possum control through CMA as part of property possum control operation.

Plant propagation and planting

Collect any available beech seed.

Propagate beech seed.

Collect cuttings and seeds from species for general restoration plantings.

Propagate collected cuttings and seeds.

Recreation/community relations

Finalise track location/route and mark on the ground.

Prepare initial newsletter outlining scope and approach of project.

Year 1 (2005-06)

Management planning

Prepare Year 2 (2006-07) CMA work plan.

Hold meeting of CMA Advisory Group.

Monitoring

Remeasure photopoints.

Establish further permanent plots.

Establish restoration planting monitoring plots as required.

Remeasure bird monitoring lines.

Plant and animal pest control

Prepare field guide to weed species in CMA.

Undertake control of priority weeds identified during Year 0 survey.

Continue with possum control through CMA as part of property possum control operation.

Implement mustelid and rodent control.

Plant propagation and planting

Collect any available beech seed.

Propagate beech seed.

Collect cuttings and seeds from species for general restoration plantings.

Propagate collected cuttings and seeds.

Undertake initial restoration plantings (target = 1 ha plus interplantings plus beech).

Recreation/community relations

Finish track development including signs etc.

Prepare 2005/06 newsletter on project.

Prepare brochure outlining scope and approach of project.

Establish web page that focuses on the CMA.

Year 2 (2006-07)

Management planning

Prepare Year 3 (2007-08) CMA work plan.

Hold meeting of CMA Advisory Group.

Monitoring

Remeasure photopoints.

Establish further permanent plots.

Establish restoration planting monitoring plots as required.

Remeasure existing restoration planting plots.

Remeasure bird monitoring lines.

Plant and animal pest control

Undertake any follow-up control of priority weeds as required.

Continue with possum control through CMA as part of property possum control operation.

Continue with mustelid and rodent control.

Plant propagation and planting

Collect any available beech seed.

Propagate beech seed.

Collect cuttings and seeds from species for general restoration plantings.

Propagate collected cuttings and seeds.

Undertake restoration plantings (target = 1 ha plus interplantings plus beech).

Recreation/community relations

Prepare 2006/07 newsletter on project.

Year 3 (2007-08)

Management planning

Prepare Year 4 (2008-09) CMA work plan.

Hold meeting of CMA Advisory Group.

Monitoring

Remeasure photopoints.
Establish further permanent plots.
Establish restoration planting monitoring plots as required.
Remeasure existing restoration planting plots.
Remeasure bird monitoring lines.

Plant and animal pest control

Undertake any follow-up control of priority weeds as required.
Continue with possum control through CMA as part of property possum control operation.
Continue with mustelid and rodent control.

Plant propagation and planting

Collect any available beech seed.
Propagate beech seed.
Collect cuttings and seeds from species for general restoration plantings.
Propagate collected cuttings and seeds.
Undertake restoration plantings (target = 1 ha plus interplantings plus beech).

Recreation/community relations

Prepare 2007/08 newsletter on project.

Year 4 (2008/09) – same as year 3

Year 5 (2009/10)

Management planning

Prepare Year 6 (2008-09) CMA work plan.
Hold meeting of CMA Advisory Group.

Monitoring

Remeasure photopoints.
Undertake first 5-year permanent plot re-measurements.
Establish restoration planting monitoring plots as required.
Remeasure existing restoration planting plots.
Remeasure bird monitoring lines.

Plant and animal pest control

Undertake any follow-up control of priority weeds as required.
Continue with possum control through CMA as part of property possum control operation.
Continue with mustelid and rodent control.

Plant propagation and planting

Collect all usable plant material from Remnant A prior to its removal.
Utilise salvaged material from Remnant A in restoration and regenerating forest areas.
Propagate beech seed.
Collect cuttings and seeds from species for general restoration plantings.
Propagate collected cuttings and seeds.
Undertake restoration plantings (target = 1 ha plus interplantings plus beech).

Recreation/community relations

Prepare 2009/10 newsletter on project.