





- ### Land Use History
- Gold / copper mining
 - Natural areas
 - Forestry
 - Agricultural
 - Grazing
 - Extensively cleared
 - Four endangered species
 - One Endangered Ecological Community
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- ### Aims / objectives
- Increase the size, health and diversity of remnant areas.
 - Link areas of remnant vegetation.
 - Improve the sustainability of Cadia valley farms.
 - Improve water quality and stream health by enhancing riparian areas.
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- ### Drivers
- Sustainable land management
 - Threatened species
 - Superb Parrot
 - Yellow bellied Sheath-tailed bat
 - Squirrel Glider
 - *Eucalyptus canobolensis*
 - Endangered Ecological Communities
 - White box - Yellow Box - Blakely's Red Gum EEC
 - Grassy White Box EEC?
 - Conditions of Consent
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- ### CVO Vegetation links
- Protection and movement of fauna
 - Movement of genetic material between isolated populations
 - Shelter belts
 - Visual amenity
 - Possible groundwater / salinity benefits
 - Increased biodiversity
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- ### Enhancement Process
- Planning
 - Consultation
 - Neighbours
 - Collaborators
 - Agistees
 - Other stakeholders
 - Implementation
 - Maintenance
 - Fences
 - Weeds
 - Feral animals
 - Replacement of plantings
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Features of re-veg areas

- Indigenous species
- Species diversity
- Structural diversity
- Enhancement of
 - TS habitat,
 - Threatened flora
 - Endangered Ecological Communities



Selection of priority areas

- Quality of remnant vegetation
 - Resilience
 - Land use history
- Size of remnant area
- Proximity to TS – EEC
- Easy links to other remnants



TAILINGS REVEG TRIAL

- Approx 1000 Ha for revegetation
- Final land-use
 - Pre-mine land-use of Grazing
 - Perennial pasture
 - Groves of trees & shrubs.



Tailings substrate

- Challenges for plant growth
 - pH 8.3
 - Surface crusting
 - Saline
 - Low nutrient
 - Low organic matter
 - Highly erosive
 - Similar structure to very heavy clay
- Benign substrate



Soil amendments

- Plain tailings (control)
- Biosolids (30t/ha)
- 150mm topsoil capping
- 'green manuring' simulation (8t/ha)
- Waste rock
- +/- Dolomite
- +/- Gypsum
- +/- Fertiliser



Species trialled

- Native trees & shrubs
- Native grasses
- Introduced grasses & legumes
- Saline tolerant species
- Alkaline tolerant species



Monitoring

- Soil / substrate analysis
- Germination
- Growth
- Biomass
- Tissue tests



Creek Diversion Restoration

- 2.5km diversion
- Square channel
- Minor pooling & riffling
- Minimal habitat structures
- Hard rock face
- Loose rock face



Aim

- Revegetate aquatic & riparian vegetation.
- Provide habitat structure through placement of timber

