



Local to Landscape Heathcote: Spring Plains Watershed Repair project

Addressing the pressing need to restore damaged bushland so it can continue to provide critical habitat for the endangered species under a rapidly changing climate.

Woodland birds under threat

The beautiful but critically endangered Swift Parrot relies on the nectar of the box-ironbark forests in central Victoria to sustain them through the winter. They migrate from their breeding grounds in Tasmania to feed on nectar flows that were once abundant and reliable but are no longer so. Increasingly prolonged droughts, on top of years of degradation through gold mining and timber cutting, has made the forests less healthy, biodiverse and productive than they once were.

The Springs Plains reserve is a local hotspot for Swift Parrots and other threatened woodland birds. However, its damaged soils are not porous enough to absorb the rainfall as they once did, so less water is available to the landscape and its food webs.

New approaches to climate-proof habitat

The Spring Plains Watershed Repair project will apply a range of innovative ecological restoration

techniques to a 138 hectare watershed in the Heathcote region to 'reset' the altered forest so that it can withstand and is better prepared to buffer its biodiversity values against the worst impacts of climate change. Measures are designed to help make watersheds more absorbent – or less 'leaky' and so more productive.

Restoration techniques include: contour ripping (soil water infiltration), direct seeding natives grasses (soil biology and understorey health), grazing pressure management (to maximise understorey regeneration), ecological thinning (habitat and landscape health), and 'leaky weir' ponding (gully hydration). The project will establish a baseline monitoring program measuring bird assemblages, arboreal mammals, kangaroos, vegetation cover, canopy productivity and soil condition.

As a pilot project in the *Heathcote Local to Landscape* Program, the project is part of a longer-term and landscape-scale plan for ecological restoration of the region.

Strong collaboration

Bringing together the lands Traditional Owners, the Taungurung people who are wanting to heal country, Parks Victoria, Birdlife Australia and the broader Heathcote community, the project will integrate restoration techniques that, at least in central Victoria, have never before been combined at a landscape-scale to demonstrate how the health of bushland damaged can be quickly and cost effectively restored.



Taungurung Elder Shane Monk standing by a rare old Grey box in Spring Plains Nature Conservation Reserve found on a planning field trip this year

If we are going to halt species extinctions and ecological breakdown, and to build resilience to climate change in our environment, we need efficacious technologies and to work together. If successful we believe the 'Spring Plains' project has great potential as a kind of modular solution, that could be adapted, amplified and repeated in watersheds – large and small – across the region.

Philanthropy and investment

A detailed implementation plan has been developed for the project, funded by private philanthropists, and funding is now being sought for Phase 2 of its implementation over the next two years. In 2020 the Ross Trust awarded a 3 year major grant towards the Heathcote Local to Landscape project, providing funding for a Project manager and some of the proposed Spring Plains Watershed Repair measures. In-kind investment from partner organisations includes knowledge, equipment and linking to existing volunteer programs.

The total estimated budget for Phase 2 of the project is \$294,000. While it is expected the interventions will drive immediate improvements (e.g. soil water infiltration), it is anticipated the full ecological benefits will take up to a decade to manifest and thus Biolinks, through Local to Landscape Heathcote, is committed to managing the project over at least this time frame.

	Cost (2 years)	Raised	Required
Hydrological restoration works	\$10,730	-	\$10,730
Ecological thinning dense regrowth	\$82,000	\$30,000	\$52,000
Deliberative revegetation	\$25,000	-	\$25,000
First Nations involvement	\$30,000	\$5,000	\$25,000
Measurement and monitoring	\$61,750	\$10,000	\$51,750
Personnel – Manager, Ecologist	\$60,000	\$50,000	\$10,000
Total	\$294,280	\$120,000	\$174,480

For more information:

Paul Foreman, Project Ecologist

e: Paul@biolinksalliance.org.au

m: 0429 009743

Ellie McKenna, Relationship manager

e: ellie@biolinksalliance.org.au

m: 0432 072 288