 **Landcare Broken Hill Inc**

***Greening the Hill Mk.2***

**ABC Radio interview No.4**

**The precious ‘Regen’**

Just 3 weeks have now passed since our Greening the Hill Mk.2 project launch.

We are now just 8 days away from our public meeting on **Thursday 30 May** when we will explore the ideas which have been floated. We will determine what’s possible and priorities. **7pm @ Centre for Community, 200 Beryl Street**.

The project continues to cause much discussion around town. As with all new initiatives, I’m beginning to hear some **misdescriptions** of what is being considered. Healthy debate is a good thing as it generates interest, but negative misunderstandings are unhelpful.

**The priority to be given between different proposals will depend on how many people come forward as volunteers to assist** Landcare Broken Hill to achieve its vision for a greener Broken Hill. Partner organisations will also ensure success.

Today I’d like to focus on the Regeneration Belt, the Regen, that surrounds the City’s perimeter. I wish to give a clearer understanding of the scope of our ideas.

**The Regen is one of Broken Hill’s most precious assets.** The Regen is one of Australia’s most historic examples of practical conservation projects. When Albert and Margaret Morris pursued their work from the mid 1930s to the mid 1950s, the creation of the Regen was in the vanguard of such projects in Australia. It provided a model, years later, for similar regeneration efforts in other places. Just about every mining project in Australia nowadays contains in their licence to operate a requirement to rehabilitate impacted land – but that wasn’t always the case. The original creation of the Regen basically showed what could be done in a harsh arid environment with a scarce water supply.

What was so special? Why was the Regen work successful?

First, it was good science – good botany – sound ecological knowledge that the key to the successful creation of the Regen. The Morris couple showed that it was necessary to observe the land and identify which plants grew successfully in the arid zone conditions. Albert Morris commenced an intensive private nursery, studying the plants that grew across the Barrier Ranges, collecting seed and then propagating them in his seed beds. They ascertained what were the factors that led to successful propagation, replanting and survival. Understanding the factors that contribute to survival is critical.

So Albert & Margaret Morris were successful because they studied the native Australian vegetation that was endemic to the region. They carefully determined which plants could and would survive in the region. It should be no surprise that the native plants that had **adapted and evolved, from time-immemorial, to the arid-zone conditions were the most successful**. They were the most hardy, the most tolerant of low rainfall and scorching heat.

It was then unique approach that led to the creation of the Regen, as a forerunner decades ahead of other places, that led to **National Trust classification of the Regen in 1992**, the first such recognition of such a natural landscape in the Nation.

The Regen was also one of the key factors that led to National Heritage Listing under the Commonwealth Government’s Environment Protection & Biodiversity Conservation Act. These are key extracts from the National Listing:

“This far-sighted innovative regeneration work by Morris from 1936 led the Zinc Corporation to apply regeneration practices at Broken Hill. Subsequently the precedent was used by mining companies and spread throughout Australia, particularly in arid zones.

The significance of Morris’ work is demonstrated by the plantations, the creation of popular recreational facilities and the extensive regeneration areas surrounding Broken Hill.

The work of Albert Morris, eventually supported by mine management, in researching, validating and subsequently implementing regeneration measures to protect both the residential and mining areas from devastating dust storms is a major technical achievement. His work, recognised nationally and internationally, is evident in the ‘green belt’ surrounding Broken Hill. Regeneration areas, following the principles established by Morris, now provide an edge to Broken Hill urban areas, particularly on the north-western and south-western boundaries.

A critical factor in successful rehabilitation of land is to **reinstate the natural ecology of an area**. It starts with the correct selection and retention of plant species. A healthy ecology is much more – it is one that retains the linkages, the inter-relationships, between the plants, the soil, the animal and bird species - even the insects. It is a place where the habitat of dependent species is retained. Consider, for instance, the important function of native bees cross-pollinating plants. If the correct plant species exist in sufficient numbers, then the natural systems will continue as they should. Pollinated native plants will produce fertile seed which in turn will more likely result in healthy seedlings leading to natural regeneration. If you destroy that natural order in a place, you weaken its long-term survival.

Moving forward to today and **Greening the Hill Mk.2,** Landcare Broken Hill was originally established in October 2009 with a sole stated objective, that was to assist in the care and maintenance of the Regeneration reserves. Obviously **Greening the Hill Mk.2** has a far wider and bigger objective – in addition to helping look after the Regen, we have launched a city-wide project to assist the whole of Broken Hill to ‘green’ both public and private places. So we’re looking at providing backyard gardeners good advice through to helping public authorities make better decisions regarding public open spaces. It is a broad, all-embracing community-wide project.

The Regen is actually Crown land under the care and maintenance of Broken Hill City Council. The Council has primary responsibility. However, Council’s resources have never been, and will never be in the future, large enough not to willingly accept the offer of on-going assistance of Landcare Broken Hill when it comes to helping to look after the Regen.

So what will Landcare Broken Hill volunteers be doing to assist Council?

First, we will **maintain expert botanical input**. Amongst the Landcare members are highly knowledgeable botanists who know and understand the native Australian plants which are best suited for the Regen. Teaching the wider community - spreading the knowledge - about the botany is seen as key to long-term planning.

Secondly, with Council permission, Landcare volunteers will assist in the **removal of invasive weeds** from the Regen. One of the most threatening processes in any natural ecosystem is the spread of invasive species – plants from another place they may opportunistically overwhelm the fragile natural state. Such plants have no interrelationship with the natural order, so they disrupt the maintenance of the habitat of species dependent on the original ecology surviving. There are, for instance, in the Broken Hill district bad weeds that have escaped and spread: such as a number of different types of cactus, box thorn, datura and mimosa. There are also escapee plants from people’s backyards.

Weed removal can be hard and tiring work from one perspective, but at the same time, it is a healthy outdoor activity which develops comradery amongst the volunteers. A fun day can be had whilst achieving a positive outcome.

When it comes to **fixing degraded areas within the Regen**, in the right season with rain or when there is a capacity of volunteers to water seedlings, the next task of Landcare is to grow a supply of carefully selected native species endemic to the Regen. This involves **seed collection** from the healthiest plants in the bush. Landcare Broken Hill has seed collection sieves ready for action.

Any native seed collection and then any propagation in our plant nursery facility, will be guided activities under the experienced tuition of Landcare Broken Hill volunteers. If members of the community get involved, they will **gain useful knowledge and skills**. Imparting knowledge - to the wider community - about the native vegetation of the region is seen as a key outcome of our Greening the Hill Mk.2 initiative. Teaching the community useful skills about seed collection and propagation of plants, will return positive outcomes time and time again as those people go back and spread awareness and pass on skills.

Given the sensitivity of our precious Regen, there will be times when it is not appropriate to disturb the ground for replanting. There will be times of drought or during dry seasons, when it may become too much of a struggle to keep new plants alive. In those times, the new seedlings may be retained in the nursery until conditions improve or are planted in other places where care is easier. **The key message is that any new planting in the Regen should be in accordance with a management plan in order to provide proper guidance**.

**Planting flexibility elsewhere, but not in the Regen**

In previous interviews, when I spoke of the Broken Hill community adopting a street, or a nature strip, or supporting a community garden, such as a community vegetable garden, I was highlighting areas where greater flexibility in plantings can be exercised. Of course, sense should prevail with street trees and nature strips, meaning that the selection of hardy, low-water-need species, such as arid zone natives from the broader region should be the aim. With the wrong selection of plants, the prospects of success are far less.

However, for the Regen itself, as its rarity, its preciousness, is because of a near-natural state of carefully selected species. The selection of plants, following the Morris’s lead is critical. Despite that rigour, the opportunities for volunteers to provide enthusiastic energy, working under guidance which will give everyone knowledge, the opportunities are boundless.

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