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The Australian Rangeland Society

A landholder's perspective of land restoration on Todmorden Station, Oodnadatta SA

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Abstract

What is new to our management is active landscape restoration, which we have commenced by participating in the Ecosystem Management Understanding (EMU) Project™ through the Neales River Catchment Pilot Project. While we are committed to progressing with restoration activities, we see these as being inextricably linked and inter-dependent with our feral animal control, grazing management and other aspects of our whole business. Indeed this vigilant management enhances the likelihood of restoration activities succeeding. In this article I offer my personal perspective as a pastoralist.

Introduction

Todmorden Station is located in the north west of the South Australian Arid Lands Natural Resources Management (SA ALNRM) region. It occupies approximately 7, 300km², straddling the Alberga and Neales Rivers, west of the Oodnadatta Common. The diverse landscape includes river floodplains, chenopod valley sides, gilgai plains and tablelands, hills and extensive sand plain on the southern edge of the Pedirka Desert.

Originally taken up in early 1890s and stage managed in conjunction with Henbury and Idracowra Stations in the Northern Territory, Todmorden was used for sheep and then cattle and horses (for the Army). Todmorden Station has been managed as a cattle enterprise since my parents, Gordon and Mary, acquired the lease in 1962. We run a trial

camel “herd”, but the dominant cattle enterprise involves turning off young steers and cull for age cows, generally to our farm near Snowtown. Todmorden is a critical part of our family business.

Weeds are not a major problem on Todmorden and our general strategy is to reduce disturbance opportunities that favour their proliferation and spread through grazing management. We have always kept up our control of feral animals and they are not a major problem, although we are concerned about rabbits becoming resistant to the calici virus and building up again. We have always tended to lower risk, conservative stocking rates and turning off young steers in keeping with our arid and unpredictable climate. This gives us flexibility to match stocking rate to seasonal vagaries. As a general rule we set stock conservatively, but rest whole or parts of paddocks when the signs of stress first appear. We use our mulga “drought haystack” country heavily (but within limits) and supplement with urea during prolonged dry periods to safely retain as much of the breeder herd as possible. We then plan special grazing management to allow full recovery once seasons improve.

Involvement in the EMU Project

I agreed to participate in trialling the EMU project approach through the Neales River Catchment pilot project which was funded through the South Australian Arid Lands NRM Board (SAALNRMB) and Centralian Land Management Association (CLMA). The EMU approach was developed by two southern Africans, Drs Ken Tinley and Hugh Pringle, in arid Western Australia (Pringle and Tinley 2001).

My motivation includes hearing the Cadzow family from Mt Riddock Station near Alice Springs, presenting on “*cost-effective strategic restoration works*” at a SAALNRMB “Grass with Class” workshop in Oodnadatta.

The process involved the following sequence of activities:

1. Overlay mapping: I mapped property values and salient features on a series of clear overlays using coloured pens. Key areas rich in themes were identified and an aerial traverse was planned to visit them and other specific issues.

2. Aerial traverse: During the flight we viewed and talked about important areas of the Station. Of particular importance, we found that early stages of gully development were threatening our most productive landscapes.
3. Ground traverses: On-ground site visits combined with discussions of feasibility and “bang for the buck” interventions to prevent potential problems.
4. Selecting a pilot catchment. Based on these preceding steps, I chose the Wooldridge Creek catchment as it is largely intact ecologically, highly productive pastorally, only its lowest reaches are on the neighbouring property, it has high potential for cost-effective restoration work and is easily accessible.
5. Interim plans: A whole of property land management plan has been developed, including key areas of production that are not included in Government monitoring systems. A specific Wooldridge Creek Catchment Management Plan (WCCMP) has also been developed and is being updated.
6. The WCCMP is now a trial landscape restoration project based on EMU principles.

Some key points about the EMU Process that I appreciate include:

1. It is voluntary and totally confidential; I own all information and I drive the process.
2. It focuses on best and healthiest country, not most degraded and ugly country.
3. It helps me manage what I already know better and has increased my understanding of some landscape issues.
4. EMU respects my opinion when I disagree with them and this is fertile ground for learning from each other.
5. Through EMU requests, I have been involved with neighbouring pastoralists embarking on EMU and there is potential for us to build local knowledge and expertise together.

The Wooldridge Creek Catchment Management Project

This project is now underway and with support from the local EMU team (Janet Walton, SAALNRMB, Coober Pedy and Dr Hugh Pringle, Centralian Land Management Association, Alice Springs) we have identified strategic intervention sites. The Northern Territory Government has allocated experienced Soil Conservation Officer, Col Stanton, to come

down to Todmorden and get me started on a range of activities so that we can continue ourselves. Like the EMU Project, access to this expertise has been critical to getting things started, but I am now starting to feel confident in managing and coordinating restoration activities, albeit with access to expert advice periodically.

The focus of the WCCMP is to increase local infiltration of raindrops and reduce run-off of water and topsoil to my neighbour. Interventions are planned primarily to secure the productivity of most important landscapes. Key interventions, planned strategically in catchment context, include:

1. Restoring natural sheetflows captured by tracks that have in turn become drainage lines
2. Decommissioning tracks causing problems where alternative routes exist
3. Stabilising and/or starving gullies draining floodplains and floodouts
4. Making flows in wider and deeper creeks “work” by placing heavy mesh floodgates across them, encouraging overbank flow behind
5. Strategic fencing off of a trial area
6. Trials of various techniques to restore groundcover and productivity
7. Trials of various approaches to slow flows in gullies and creeks
8. Moving watering points away from fragile landscapes that affect others.

This is a long-term commitment and whilst many activities have already occurred, there are several initiatives for this project and the whole property that may take many years to achieve. Most of these are captured in plans and overlays, but do not distract us from doing what we can do now whilst still managing the pastoral business. With CLMA and CSIRO support, we have acquired VegMachine to monitor landscape scale change and the local EMU team has been implementing baseline ground monitoring as planned activities are addressed, so that we can assess return on investment in a quantified and demonstrable manner.

Land restoration in its strategic context to a pastoralist

Healing legacies of land degradation is very rewarding, but it does not always pay off commercially. Through the EMU Project, we have focused on “bang for the buck” interventions, but not entirely. An area of importance to healthier plains above (so valid under this criterion anyway), but showing signs of severe topsoil stripping and lost productivity has also been included, because I want to fix this personally and can try out different approaches that will provide useful information to my local landholder community (of all tenures). Most of our restoration is focused on protecting and enhancing healthy landscapes.

There is a cost of doing nothing, particularly if gully systems are just beginning in healthy and productive country. While erosion processes may commence slowly, they may gather pace and suddenly the task of halting them becomes costly and time consuming as production loss accelerates. Doing nothing damages production, sustainability and the environment.

There has to be a balance between public and private good and funding. Perhaps pastoralists need to help themselves in the main, but financial support at the outset can facilitate major changes on-ground. Projects such as EMU can help pastoralists assess key drivers of production and where restoration activities might be most cost-effective. Taxpayers can fund initiatives focusing on public good, but how these are sustained needs to be considered as they may be a recurring impost on the pastoral business. Strategically planned and prioritised, I believe land restoration is another key ingredient of modern “ecologically sustainable” pastoralism.

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