Example of a leaky weir.

Natural sequence farming

Rocks, logs help make star

Farmer Peter Andrews turned back water and turned back land degradation, and it turned him into something of a media star. So much so that the ABC's flagship program *Australian Story* twice featured the tale of how he restored the health and fertility of his horse property in the Hunter Valley.

Mr Andrews calls the method he uses "Natural Sequence Farming" (NSF), a method that reverses degradation and turns conventional water management wisdom on its head.

He believes the problems of erosion, salinity and infertility that beset his property were due largely to lost wetlands on the floodplain.

In his opinion, these problems were caused by destruction of wetlands through increased velocity of run-off from clearing and over-grazing. Like most Australian landscapes, a fast-flowing stream drained the surrounding property of water and nutrients and left it susceptible to salinity.

His remedy was to place small, leaky weirs with logs and rocks across the stream and plant vegetation that would stabilise them and retain water. This re-created the perched chains of ponds and swampy meadows that dominated the Australian landscape before European settlement.

The leaky weirs direct water laterally into the floodplain while maintaining an environmental flow through the ponds downstream. Much like a sponge, the land of the floodplain absorbed this water, slowly releasing it to plants and the stream.

The result is that water is very efficiently managed in the landscape, with very few losses from evaporation as a freshwater lens is created just below the surface. The water moves slowly, cycling nutrients and repressing salinity while leaving soil moisture for the plants' root systems through dry spells.

"The natural processes started rebuilding wetlands and reeds, and in a very short period of time too," Andrews says. "Biodiversity is the key to building up nutrients."

The result is a property that remains agriculturally productive without artificial fertilisers and artificial irrigation, and that also supports native wildlife, fish and birds.

Andrews' unconventional methods have, at various times, brought him into conflict with neighbours and the government. The strain has cost him dearly, leading to loss of his property and marriage. But the results he has achieved have led to vindication and intense interest from scientists, land managers and, now, government. His methods are now being trialled on properties in Queensland and NSW.

Peter Andrews at his property Tarwyn Park.

Andrews' solutions to salinity, erosion and land degradation show that one person with intelligence, vision and incredible tenacity can achieve much by swimming against the stream of conventional wisdom and working with nature.

For more information, visit the NSF website <www.nsfarming.com>; and *Australian Story* website <www.abc.net.au/austory>.

Biological Farmers of Australia will follow the progress of trials and report in more detail on NSF methods in future issues of the *Australian Organic Journal*. ■