

# ON THE RECEIVING END: LONG-TERM SITE MANAGEMENT IN THE ZONE OF THE NORTH ROTHBURY PERSOONIA

## INTRODUCTION

Lot 56 is a 14.5 hectare woodland lot in North Rothbury, 22 kms north of Cessnock and 2 km south of Branxton in the Lower Hunter Valley. I have owned this block for over 20 years. It has no dwelling and is 400 metres from the closest sealed road. Until 2009 I also owned Lot 55 to its south.



In 1997 while undertaking a plant survey in the North Rothbury area Gordon Patrick came across an unusual *Persoonia*. It turned out to be a previously undescribed species and was named *Persoonia pauciflora*, with the common name North Rothbury persoonia. It occurs around the small township of North Rothbury. When I first heard about this plant, I was amazed. It seemed incredible that a new plant could be discovered in such a non-remote area. For over a 100 years farming and coal mining have been happening all around this plant. I spotted the first specimen on the road verge on Tuckers Lane. Then I found about 6 specimens on my blocks.



## DECIDING TO CONSERVE

My early contact with the conservation of *Persoonia pauciflora* was through Tricia Hogbin. She was contacting landholders and raising awareness in the local community. The possibility of land conservation arose. I was only really interested in a Conservation Agreement which is in perpetuity and goes onto the land title. As a concession to future owners of the block I left 1 hectare off the agreement, so a dwelling could be built.



## ASSESSMENT

Once the initial request for the land to be given conservation status is received the block is assessed by an authorised ecologist.

The agreement listed not only the occurrence of the *Persoonia pauciflora* but also the endangered ecological community, Central Hunter Ironbark–Spotted Gum–Grey Box Forest, threatened species *Grevillea montana*, and possible habitat for Swift Parrots, Regent Honeyeaters and Grey-crowned Babblers. It is also situated within the identified Climate Change Corridor.

## LINKING IN WITH THE BIGGER PICTURE

The Conservation Agreement came into affect in 2010. In 2014 Tricia contacted me asking if I was open to a trial translocation site being put on my block. I said yes. After an initial site inspection, three trial sites were chosen, two on Persoonia Park to my east and one on my block.

The translocation sites were established in Autumn 2015. Early 2015 was wet and the ground was perfect for the new plants. Each site had 24 plants in 6 plots. Three were fenced and three were left unfenced. I have monitored my plants since. Some have died. Some have been damaged by animals. Replacement plants have been planted. The plants within the fenced areas have done better than those unfenced.

Since these trial sites were established 3 “public” translocations have gone ahead. To link in with the North Rothbury community leaflets letting people know about the translocations were distributed to the residents. The turn out at each translocation has been good. The mood on the day is fantastic; positive, friendly and productive.

Last year a Bushcare group has been established and we meet most months.



planting the translocation site on Lot 56



public planting in 2017



North Rothbury bushcare group working, Winter 2018

## GETTING TO KNOW THE SITE

The responsibilities of the Conversation Agreement extend beyond one species.

I have started a project which I call Mapping Summerfield. At the core of this project is getting to know the block. It involves keeping a written record of the visits I make on a monthly basis, mapping my movement around the block, keeping a photographic record of the translocated plants.

### *plant survey:*

In the mid 2000s I started a plant survey of Lot 55, and then broadened it to include Lot 56. I thought I would end up with a short list of weeds. Using these three books I identified the plants I had photographed. I realised how wrong I was about the weeds. Instead I had a growing list of native plants and the more I looked the more I found. When I sold Lot 55 I gave this plant survey to the new owners. It seemed important to me that they were aware of the botanical diversity of their block.

In 2015 I started a new survey of Lot 56. I have identified about 150 different species. This listing includes about 20 exotics, both those I remove and those I don't. There are always a few plants which remain unidentified. Others I wait to see in flower so my identification can be verified. I have also consulted with a local horticulturist and plant buff in the Bushcare group. It is an open ended survey. This allows for corrections and additions.

The diversity of the flora on the block has intrigued me. Just recently on a document relating to the Huntlee development (which I will mention again later) I came across a series of aerial maps from 1963 – 2017. Although the maps focus on the area of the development, the four early maps 1963 – 1994 taken at 10 year intervals capture my block. Although a major clearing happened to the north east in the 60s and then again to the north in 80s, they confirm that Lot 56 was not severely cleared.

Some thinning was done across the block. I now suspect it was done in the 1980s.

It was a half hearted job. Many of the trees were cut at waist height and many have regrown.

I purchased the block in 1998. Since then regrowth has gone ahead in leaps and bounds.



left: aerial photo showing clearing done between 1964 and 1974

below: aerial photo showing area re-cleared between 1984 and 1994



### *bird watching:*

Most months I list the birds that I have seen. One of the main reasons for making these lists is to have a pre-Huntlee record. With hundreds of houses being built over the next decades the number of cats in the area will undoubtedly explode. What chance will the brown quail have against this onslaught?

### *animal tracking:*

Aside from monitoring animal tracks and traces of mammals, birds, insects, spiders I have been intrigued by the holes on my block.

Last year the hole digging increased, both the number of dig sites and the frequency with which they appeared. From the shape and digging pattern of the holes they were certainly dug by the same animal.

The animal seemed to be going after insects rather than roots but there were no tracks or scats to identify the culprit. Research pointed to the echidna but there was no proof until camera traps were set.



## MAINTENANCE

The Conservation Agreement requires the landholder to maintain the conservation value and integrity of the land. This obviously means dealing with weeds.

### *weeds:*

Since purchasing the block my attitude to weeds or exotic plants has shifted from wanting to irradiate all foreign plants forever to one of tolerance. I focus on removing only the problem weeds. A few years ago I adopted a policy of no chemicals, only hand removal. It works because I return again and again.

I have spent hours pulling out hundreds of lantana plants but with constant vigilance I have reduced its occurrence to a minimum. I realise there will always be lantana to be pulled out.

Prickly pear is harder work but it grows slowly and is really easy to spot. I carry it out, take it home and drown it i.e. submerge it in water until it goes to moosh then tip it on my garden or in the compost. The *Cactoblastis* moth is in the area and it does a fair amount of welcome damage.

The african olive I cut and cut again. I noticed that around a plant which was poisoned in 2010 after the Conservation Agreement came into affect and professional bush regenerators did a sweep through, dozens of tiny new plants had come up around the old stump. The larger plants death seemed to have triggered the new plants.

Jacarandas are another plant that crop up on my block. I cut them down, although I do wonder if they would ever get anywhere near full size in this dryer climate.

*ti-tree:*

After the last conference in Melbourne and the day trip to the Wilson's Promontory isthmus looking at the impact of ti-tree on grasslands I realise that the ti-tree *Leptospermum polyanthum* on my block was perhaps an invasive native species.

The ti-tree reaches a density which means nothing can grow under it. 20 years ago when I purchased the block the ti-tree was in one smaller area, since then it has spread. I decided first I had to get an idea of what I was dealing with. So I have tagged the ti-tree stands then plotted them using GPS. Looking at the mapping below it becomes pretty easy to predict what will happen. I suspect the area between the larger stand in the middle of the block and the larger stands on the eastern boundary will slowly fill with ti-tree. This is the area where the *Persoonia pauciflora* occurs naturally.



## THE FUTURE

The Huntlee development is pretty scary, projected to cover about 905 hectares. About 7000 new dwellings will be built. The local population of North Rothbury and Branxton is now about 2000. Huntlee will see the population increase to over 21,000. My block is right on the edge of it. Currently the area directly abutting my block is still zoned as “lower density residential”, what ever that means. The question is whether it will stay like still. Obviously there are advantages and disadvantages of such a development. They are catering for the population increase by including a school, shopping centre, medical centre and even a retirement village.

The developer was required to purchase offset land locally, an area of about 800 hectares, including Persoonia Park. But what will the impact of such a growth in population of people, cats and dogs have on the natural environment?

The conservation of the Persoonia is connected to this development, not only financially through funding the conservation process but also the success of its conservation allowed the development to precede and with it severe land clearing.



The Biodiversity Conservation Trust has recently been formed since the changes in NSW laws relating to land clearing. The land clearing laws have been slackened. As a result funds have been made available to through the BCT to landholders such as me who have a conservation agreement on their land. I have recently submitted a grant application for funds for an enclosure fence to be put around the translocation site and for funds over 3 years to pay local botanist, Stephen Bell to assess and monitor the thinning of the ti-tree. This is great but it is a bit like preaching to the converted and whether it will result in a better conservation outcome for NSW I have my doubts.

We are leaping into an unknown future. Thank you for listening.

Monica Oppen 2018

