Lower Blackwood Catchment
Land Conservation District Committee

Case Study

Evaluation of Landcare Riparian Restoration Projects in the Scott River 2002-2023

natural resource
management program

This project is supported through funding from the State Natural Resource Management (NRM) Program.

1. Background & Scope

The Scott River Catchment is divided between the Shire of Augusta Margaret River (AMRS) and the Shire of Nannup (SN) in the southwest of Western Australia. The Catchment has undergone significant modifications over the past 50 years due to land clearing and drainage for agricultural activities, and other land uses such as tree farming. These activities and changes to the landscape and waterways have been contributing factors (in some areas more than others) to the degradation or loss of riparian zones, loss of biodiversity, and decline in water quality. A major concern regarding water quality is nutrient enrichment (particularly from phosphorus) in the waterways, which is generated from agriculture-related activities.

Over the years, several projects have been carried out to restore, protect and better manage riparian habitats within the Catchment. Several of these projects have been delivered in partnership between landowners and environmental groups such as the Lower Blackwood LCDC and the South West Catchments Council, who have been working with state and federal government grants to spatially capture project information from this catchment since 2017, with records prior to 2017 captured either electronically or hard copy. Analysing pre-2017 was time-consuming, and several data incongruencies and gaps were identified due to insufficient record-keeping, variations in handwriting, and project management skills.

Despite some data inconsistency, this document aims to provide an in-depth summary of riparian restoration work carried out in the Scott River Catchment between 2002 and 2023 with the involvement of the Lower Blackwood LCDC (the LCDC). This summary will help to inform prioritisation processes for future projects, along with key lessons learnt. Findings are summarised by sub-catchment.

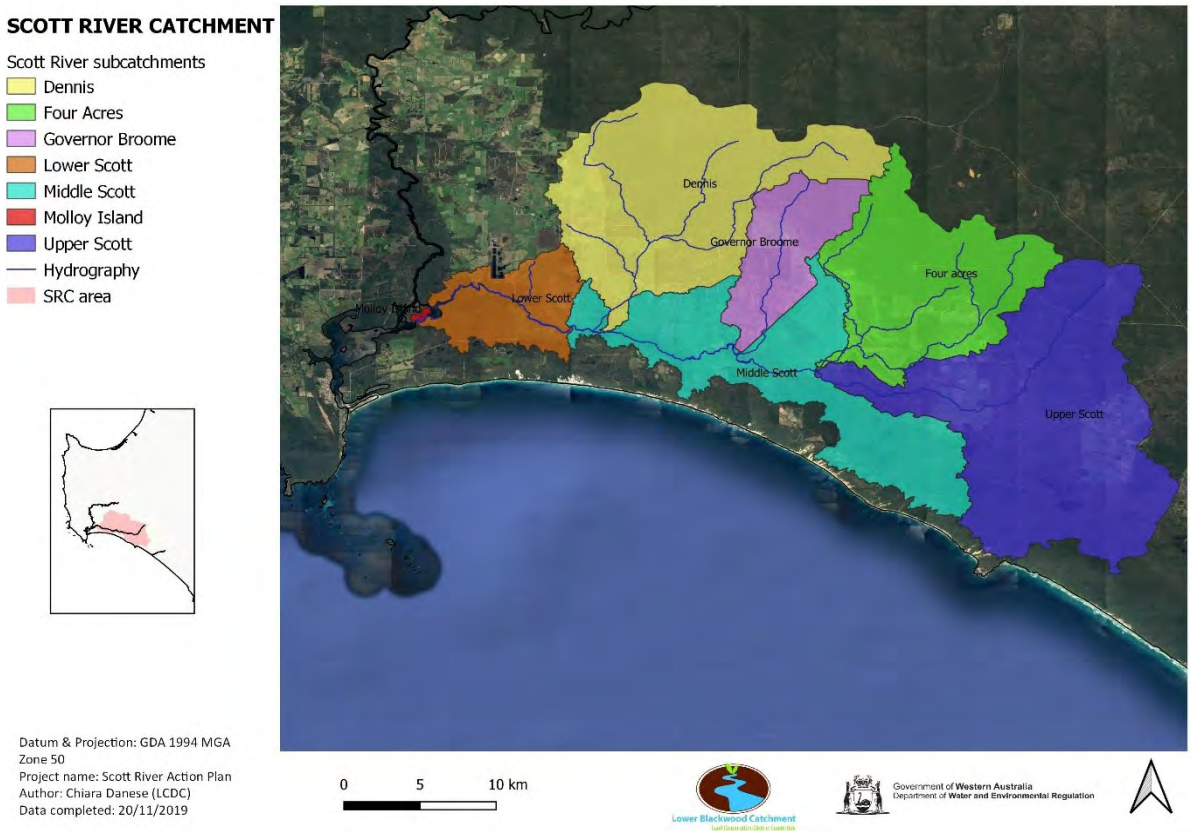


Figure 1: Scott River Catchment showing sub-catchments

Table 1: Size of Scott River sub-catchments (does not include Molloy Island)

Name	Sub-catchments (sqKm)	Reserves (sqKm)
Four Acres	105.19	11
Dennis	149.56	31
Governor Broome	45.390	0.2
Lower Scott	40.026	16.8
Middle Scott	112.48	44
Upper Scott	189.74	102

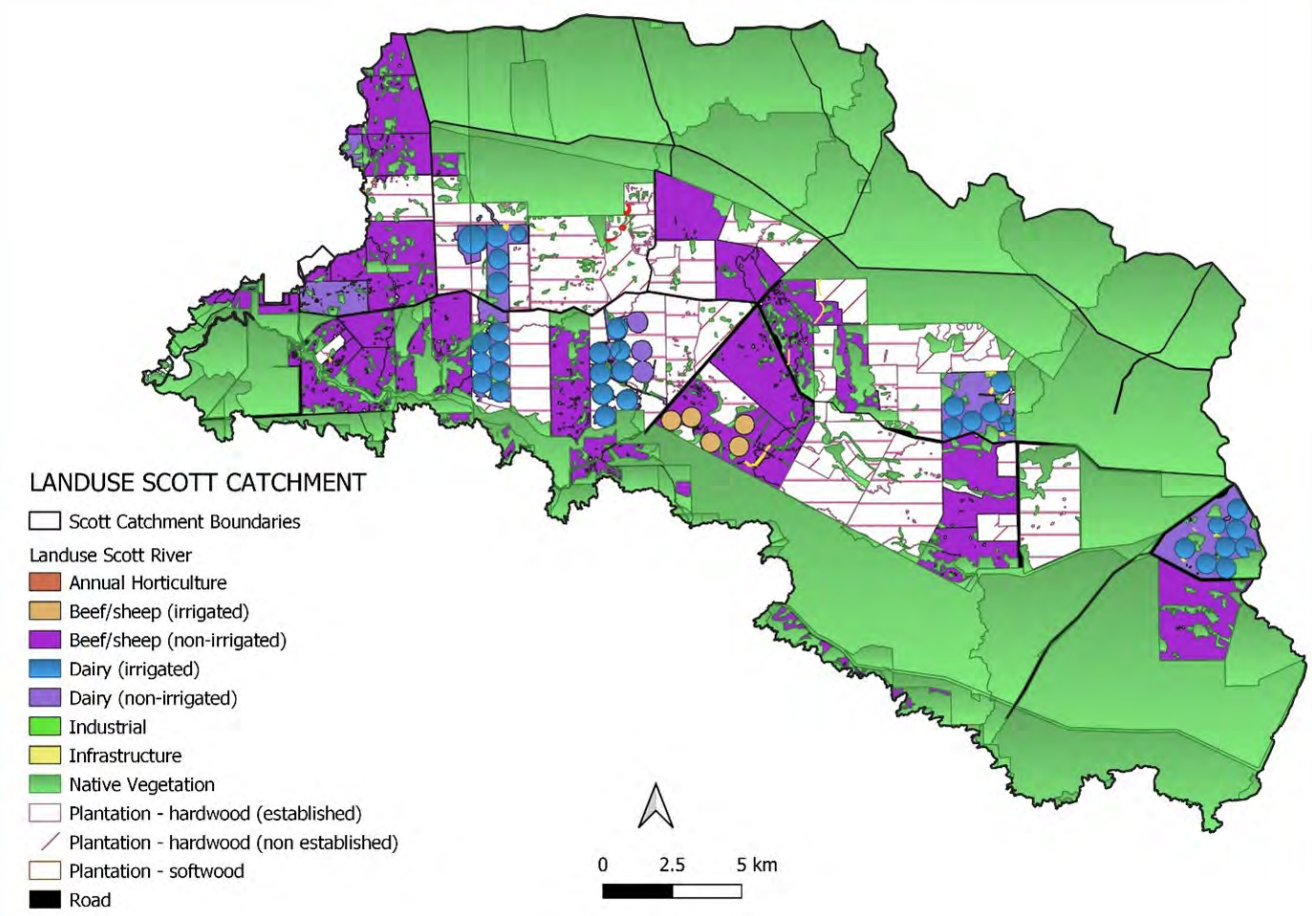
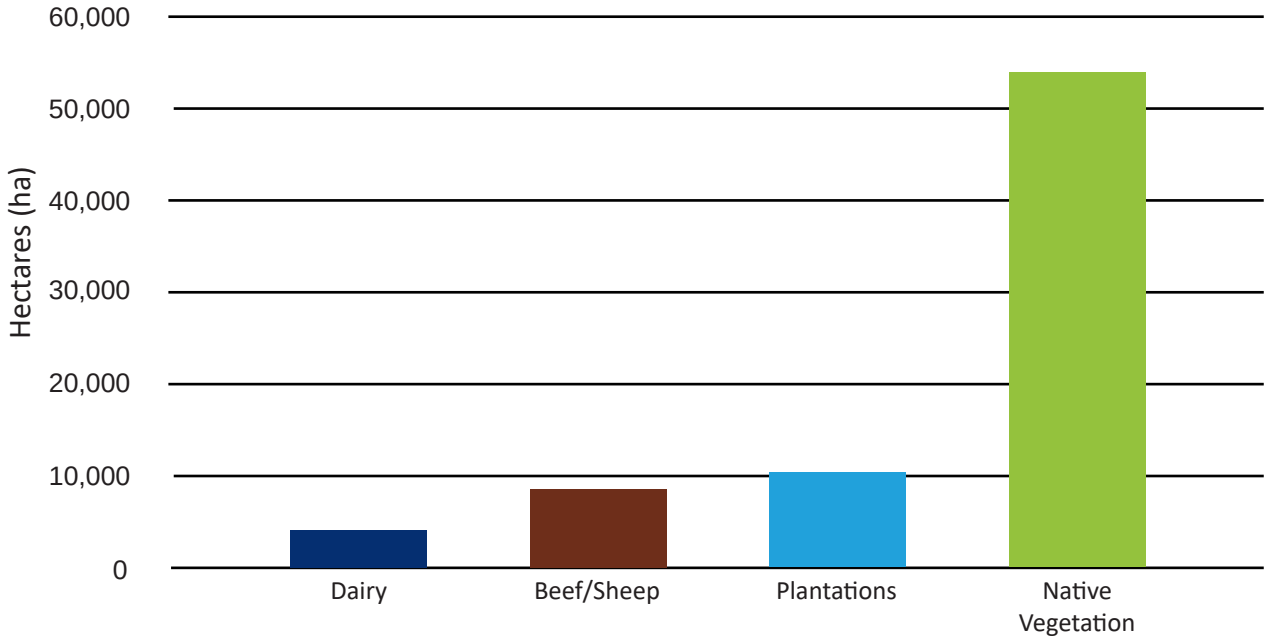


Figure 2: Land Use in the Scott River Catchment (Source: LCDC)

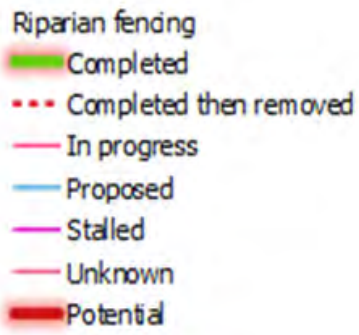
Figure 3: Summary of Land Use in the Scott Catchment (ha)



2. Methodology

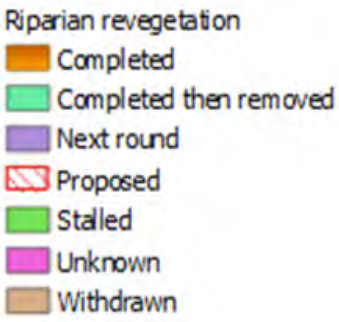
This report summarises the on-ground works completed in six Scott River sub-catchments since 2002. Note that some data may have been wrongly digitised, given that GIS is a recent tool, or some data may be missing altogether. It also provides an update on the projects' success (where possible).

For this report, riparian stock exclusion fencing work has been classified as:



Works that should prioritised are marked as 'potential'. To date, there has been no comprehensive assessment of existing fences in the Scott River catchment or the wider Lower Blackwood District, suggesting that fence lines marked as 'potential' may have already been built by property owners. A foreshore condition assessment (FCA) study was carried out by the LCDC in 2019. The data collected for the FCA has been used in this report.

Riparian revegetation has been classified as:



3. Analysis

Riparian Stock Exclusion Fencing

Since 2002, the LCDC has funded 86.7 kilometres of stock exclusion fencing, with Dennis and Four Acres sub-catchments leading the way. A total of $347,659 of funds has been allocated to the Scott River Catchment to improve waterway health, with the most significant project being the federally funded National Heritage Trust (NHT) program in 2002. There is still plenty of work to be done for each sub-catchment. However, the characteristics of the catchment, with the large number of drains, make it difficult to identify priorities for fencing.

Table 2: Length riparian fencing carried out in the Scott River Catchment 2002 to 2023.

Sub-catchment	Fencing (km)
Dennis	
Completed* of which 12.98km removed	21.1
Potential	10.16
Stalled	0.48
Four Acres	
Completed* of which 1.26km removed	15.24
Potential	6.46
Stalled	1.61
Governer Broome	
Potential	3.93
Lower Scott	
Completed	9.76
Potential	31.13
Stalled	0.63
Middle Scott	
Completed	3.23
Potential	5.54
Unknown Status	0.93
Upper Scott	
Completed	0.62
In Progress	0.93
TOTAL	86.75

Table 3: Funding spent on riparian fencing projects in the Scott River Catchment

Sub-catchment	Gov Funds Allocated ($)
Dennis	
Completed*	250,000
Four Acres	
Completed	67,457
Lower Scott	
Completed	27,322
Middle Scott	
Completed	0**
Upper Scott	
Completed	2,880
TOTAL	347,659

*Estimated $100,000 from removal of infrastructure
**Funding allocated towards kilometres erected along the boundaries of two sub-catchments has been assigned to the main sub-catchment.

Riparian Revegetation

Approximately 30 hectares of riparian fringes have been revegetated since 2002 at a total cost of $229,445 from allocated grant funds.

Table 4: Total hectares of completed riparian revegetation projects in the Scott River Catchment.

Sub-catchment	Fencing (ha)
Dennis	
Completed*	9.3292
Four Acres	
Completed	8.171
Lower Scott	
Completed	0.628
In Progress	0.771
Middle Scott	
Completed	6.13
Upper Scott	
Completed	3.072
TOTAL	29.233

*6.08 km removed

Table 5: Funding spent on riparian fencing projects in the Scott River Catchment.

Sub-catchment	Gov Funds Allocated ($)
Dennis	118,100
Four Acres	81,880
Lower Scott	2,325
Middle Scott	0
Upper Scott	21,140
TOTAL	229,445

3.1 Lower Scott

The Lower Scott sub-catchment covers an area of approximately 40 square kilometres. A significant amount of work has been carried out in this sub-catchment, particularly along the main channel, which is almost entirely fenced off. A 2.4km section still needs to be fenced, as shown in the map below. The farm north of the sub-catchment is fairly denuded, but some pockets of vegetation should be fenced off (unless they have already been). The high priority is the area closer to the main channel.

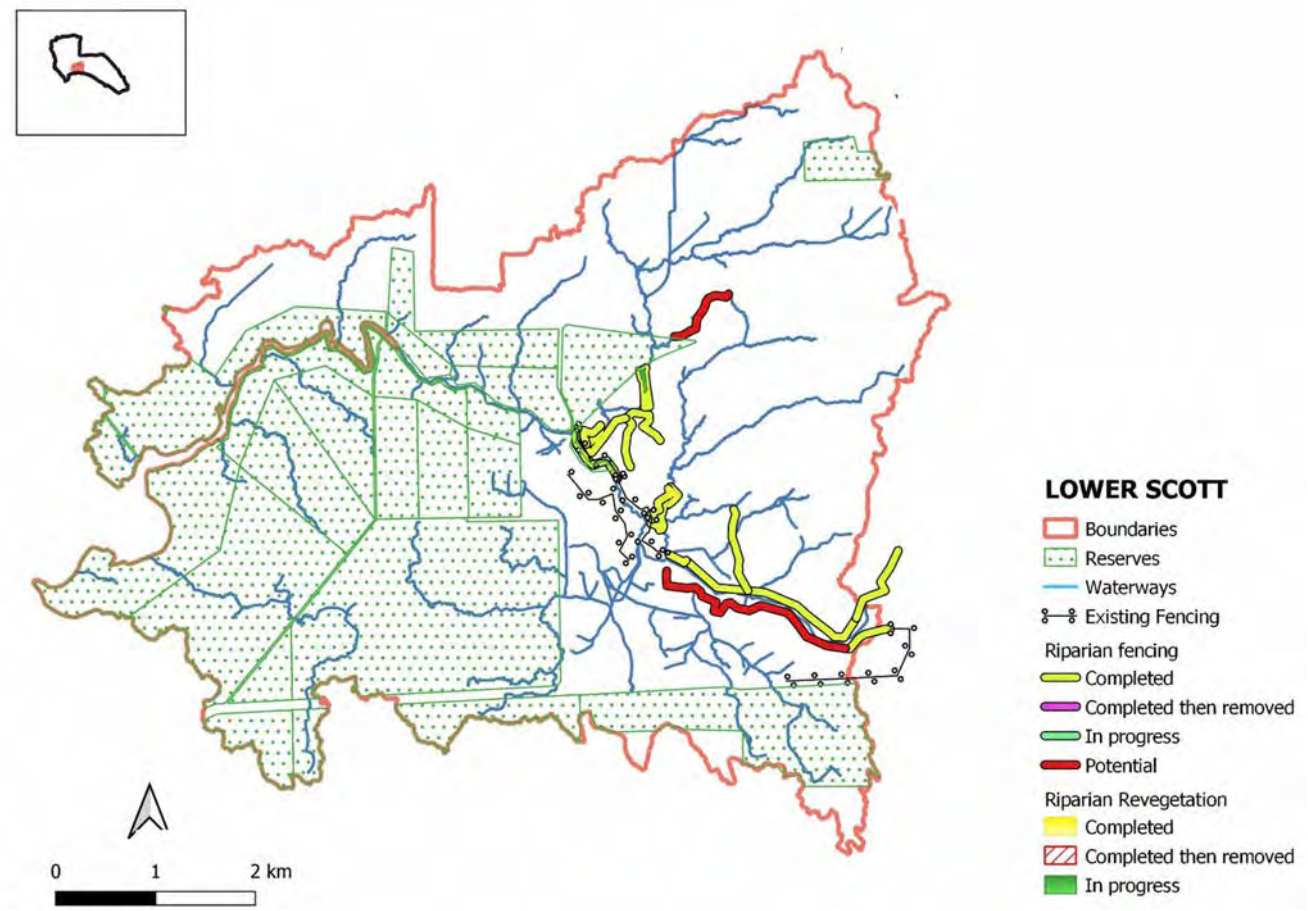


Figure 4: Lower Scott sub-catchment fencing and revegetation works completed with LCDC involvement since 2022.

3.2 Dennis

In 2002, a large NHT grant was allocated to this catchment to carry out riparian restoration works, which included fencing, revegetation, and major earthworks to reduce bank erosion. Information about this project was poorly recorded, and only a sketch is available, so some of the data recorded in the map below may be slightly incorrect. It is understood that with land use changes from grazing to plantations, most of the work carried out in 2002 has been removed (particularly the fences). Further fencing work could be carried out at the southern boundary of the sub-catchment.

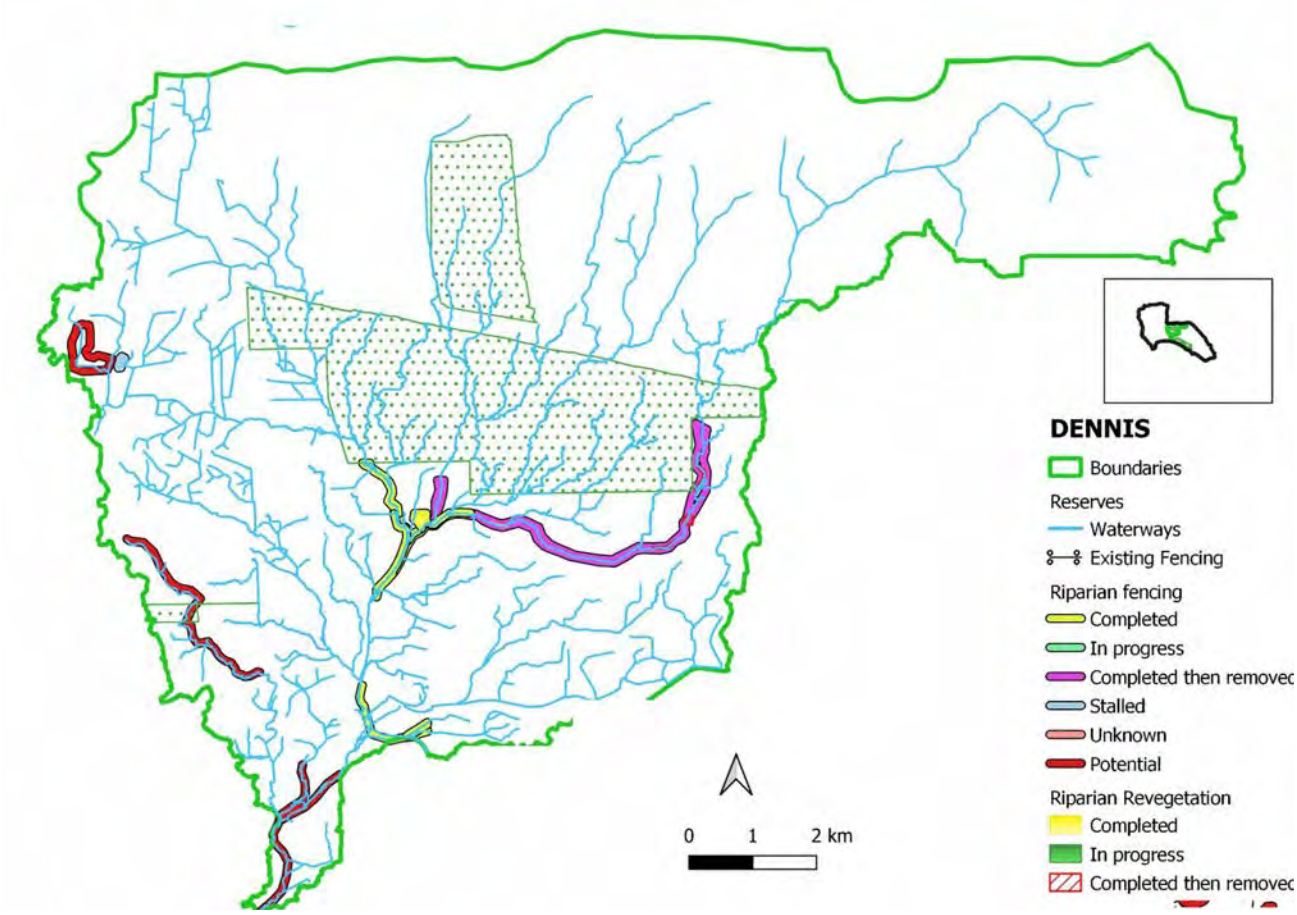


Figure 5: Dennis sub-catchment fencing and revegetation works completed with LCDC involvement since 2002.

3.3 Four Acres

The Four Acres sub-catchment is a high-priority catchment for water quality. A significant amount of work has been carried out on one of the properties (beef grazing), and more work could be done on one of the beef grazing properties as per the map below. Plantations cover a large proportion of the catchment area. There is one property that is completely denuded. It would be worth working with the landholder to determine if any of the 'original' creek line could be restored.

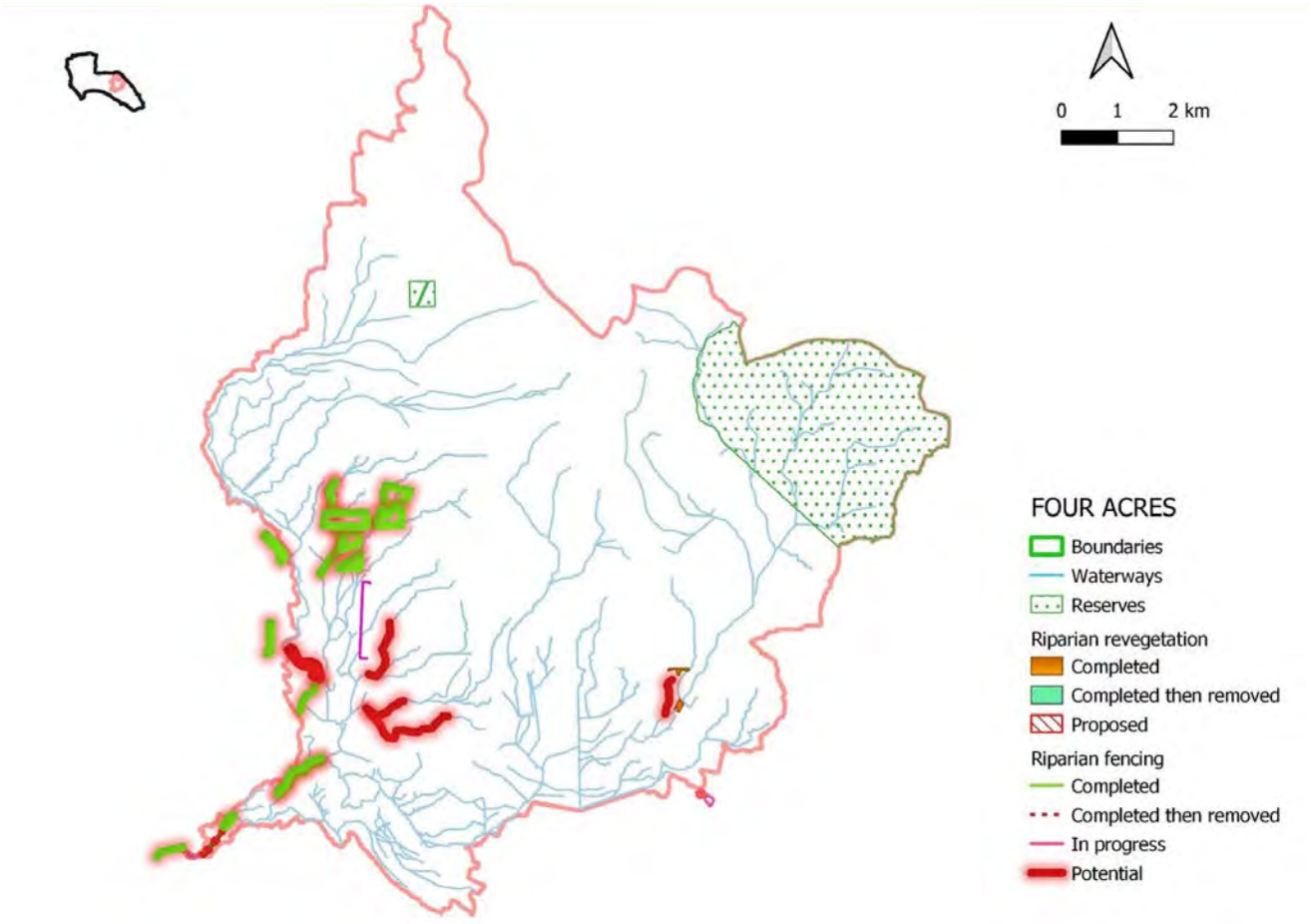


Figure 6: Four Acres sub-catchment fencing and revegetation works completed with LCDC involvement since 2002.

3.4 Governor Broome

Primarily covered in plantations, the Governor Broome sub-catchment has only one area in the north that can be restored from a riparian health point of view. Farms are completely denuded, so any restoration efforts would require significant investment.

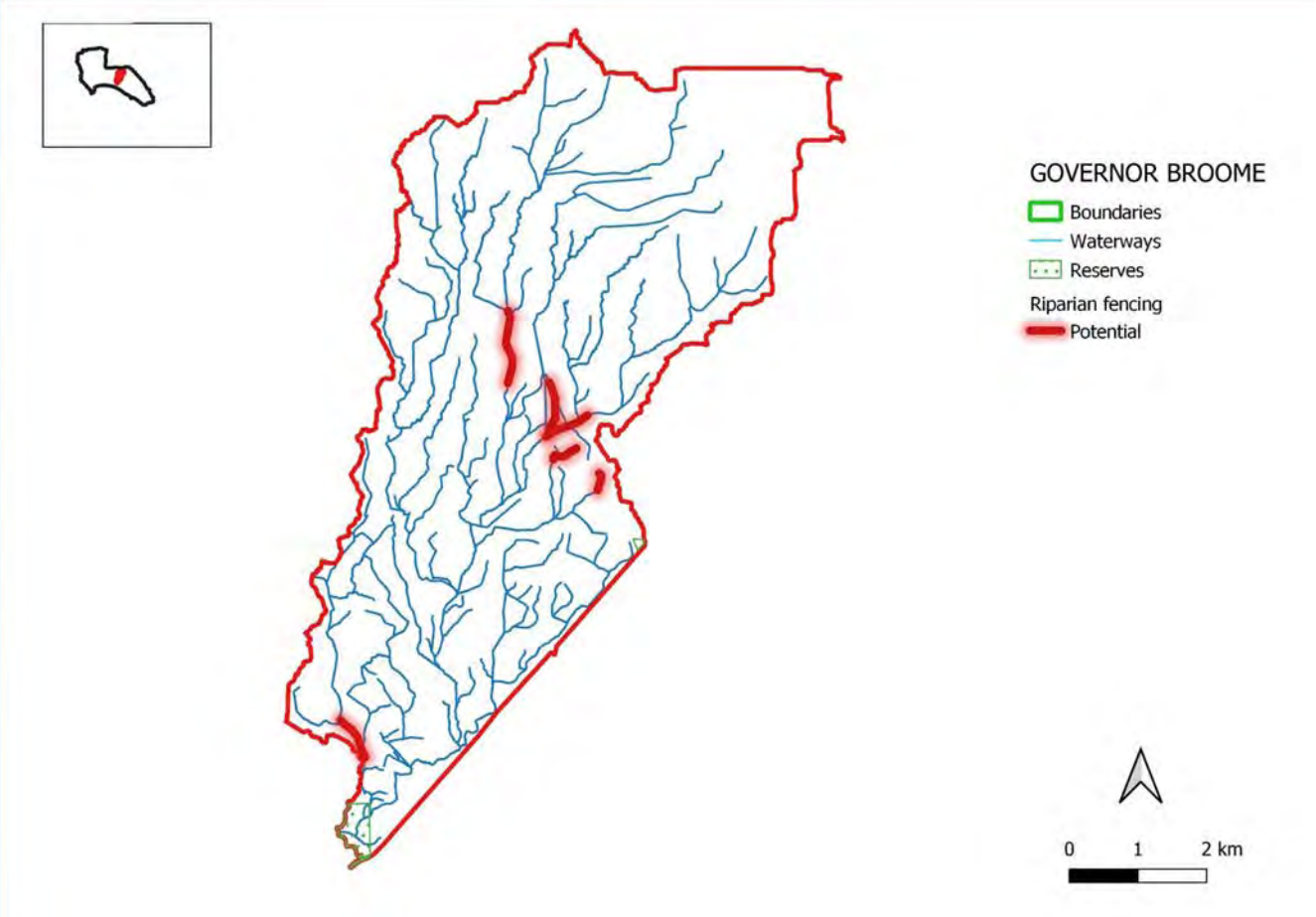


Figure 7: Governor Broome sub-catchment fencing and revegetation works completed with LCDC involvement since 2002.

3.5 Upper Scott

The Upper Scott is not a high-priority catchment for water quality. However, four farms have been extensively cleared and would benefit from riparian restoration. The foreshore condition assessment carried out in 2019 did not include this sub-catchment. It is understood (from previous conversations with landholders) that the priority here is diverting water off the farm through drainage systems and were not particularly keen to carry out riparian restoration work. It is recommended to map where the existing fences are and have a conversation with the landholders about where water can be retained and natural waterways restored.

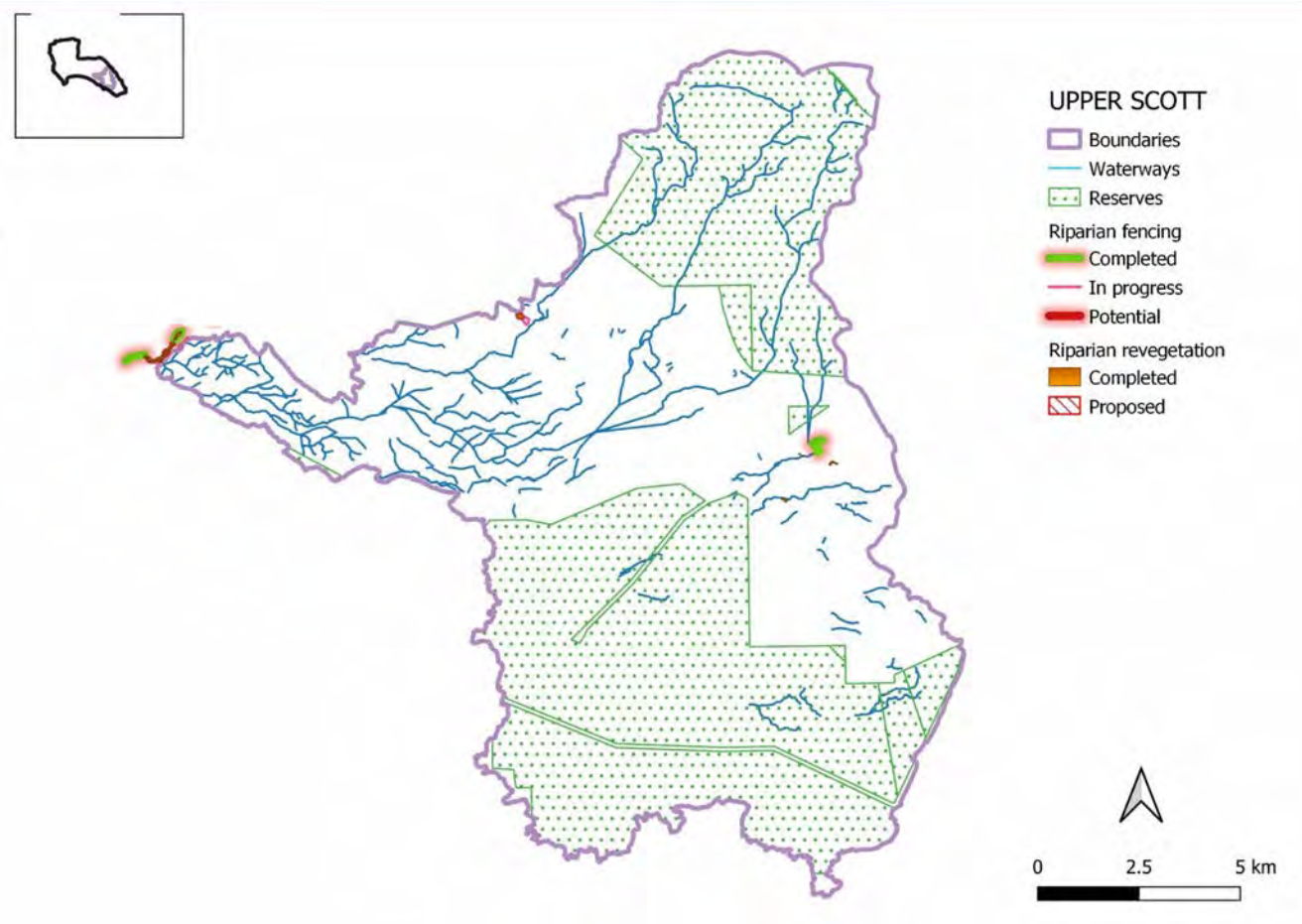


Figure 8: Upper Scott sub-catchment fencing and revegetation works completed since 2002 with LCDC involvement.

3.6 Middle Scott

A small amount of riparian work has been carried out in the Middle Scott sub-catchment. The water quality at Brennan's Ford is not improving. It is recommended to check whether the main channel is fenced off.

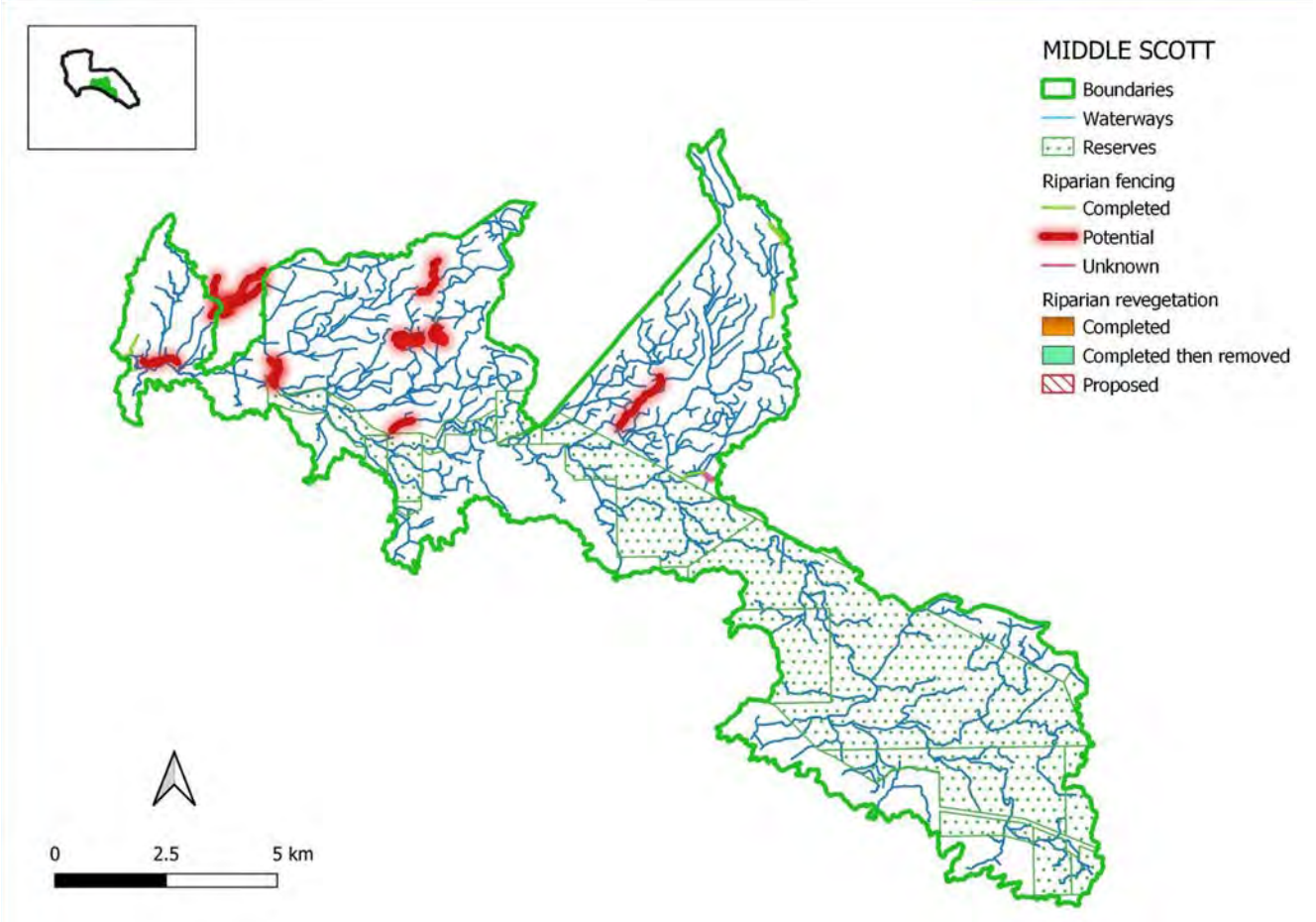


Figure 9: Middle Scott sub-catchment fencing and revegetation works completed since 2002 with LCDC involvement.

Lower Blackwood Catchment

Land Conservation District Committee

www.lowerblackwood.com.au

PO Box 42, Karridale, WA 6288

403 Kudardup Road, Kudardup, WA 6290