HFNC weed control report for Nigretta Flora Reserve 2023

HFNC requested the Lands Dept to cancel the grazing lease on this Crown Land in 1975. HFNC submissions to the LCC were successful and this 12 ha grassy woodland block with frontage to the Wannon River and Nigretta Falls became a Flora Reserve in 1982. Our flora surveys have shown 205 native species present. An aggressive invader, African Weed Orchid (AWO), was found in great numbers on this site in 2009 and action has been taken over the last 15 years to combat it, as well as other weeds (e.g. Phalaris (PA), Bent Grass (BG), Wild Gladioli *Gladiolus undulatus* (WG), Carrot Weed *Fumaria capreolata* (FC) & Cleavers *Galium aparine* (GA) resulting from a history of grazing, dumping of garden rubbish and other incursions.

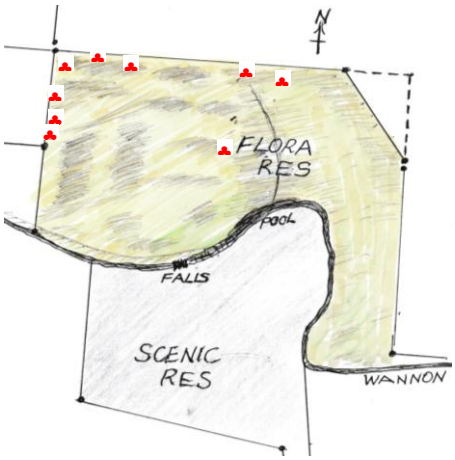
Hamilton's rainfall (mm) for the periods May-Aug, May-Oct. and Sep-Oct are given below.*
In 2023 the winter and spring periods were drier than usual – especially September.

Year	May	June	Jul.	Aug.	Sept.	Oct.	May-Aug	May-Oct.	Sept. + Oct.
2023	53	101	51	30	28	40	235	303	68
2022	48	80	38	109	89	126	275	490	215
2021	53	61	97	64	49	65	275	389	114
2020	90	61	38	70	95	91	229	445	186
2019	79	94	68	64	61	36	305	402	97
Long-term*	55	67	70	77	67	57	269	393	124

* 1984-2023 from Hamilton Airport

Sunday 16 Oct. RB, DL & PH spent 18 hrs wiping 683 AWO with glyphosate (30 mL/L), metsulfuron methyl (1 g/L), wetter and dye. Almost all of the reserve was covered. A mass of GA was spot-sprayed under Tree Violets on NE, mid-N, NW corner and mid-NW fence locations (the latter in bracken). Some phalaris and thistles were also sprayed – total spray applied was 8 L.

Sunday 12 Nov. DL, RB, PH spent 12 hr wiping 155 AWO. All of the open areas were covered, as in 2022. Also spot-sprayed (7 L) GA on the west fence area and revisit to NE patch and clumps of phalaris on N fence. Also treated a couple of *A. paradoxa* seedlings intruding on the grassland.



Fence condition – the fence is failing, with trees fallen over it at various places and posts needing propping or replacing. The fence will soon fail and that would allow the sheep from adjacent paddocks to degrade this important small reserve.

Summary of works to control AWOs since 2009:

- 2023 – 835 AWO were wiped [30 hrs]
- 2022 – 4,720 AWO wiped (4,070 plants) or dug (650 plants) [55hr]
- 2021 – 2,945 AWO wiped (2,295 plants) or dug (650 plants) [59 hrs]
- 2020 – 11,300 AWO wiped (8,335 plants), dug (725 plants) or pulled (2,240 plants) [83 hr]
- 2019 – 7,370 AWO wiped (6,765 plants), dug (499 plants) or pulled (106 plants) [68 hr]
- 2018 – 3,480 AWO wiped (3,225 plants) or dug (255) [60 hr]
- 2017 – 5,190 AWO wiped (3,820 plants), dug (1,265 plants) or pulled (105 plants) [57 hr]
- 2016 – 16,100 AWO wiped (13,625 plants) or dug (2,480 plants) or pulled (2,665 plants) [93 hr]
- 2015 – 4,045 AWO wiped (3,215 plants) or dug (830 plants) over the entire site [46 hr]
- 2014 – 7,975 AWO wiped (6,665 plants) or dug (1,310 plants) over the entire site [65 hr]
- 2013 – 8,275 AWO wiped or dug (8,125 plants) or pulled to remove heads (150 plants) [71 hr]
- 2012 – 6,900 AWO wiped or dug (6,800 plants) or pulled to remove heads (100 plants) [46 hr]
- 2011 – 5,500 AWO wiped (5,000 plants) or pulled to remove heads (500 plants) [39 hr]
- 2010 – 13,720 AWO wiped (10,140 plants) or pulled (3,580 plants); NW & E not done [27 hr]
- 2009 – 22,500 AWO dug (2,290 plants) or pulled (20,280 plants) but NW area not done [68 hr]

We were thorough in our search of the reserve for AWO and 2 visits were sufficient. Our tally was much lower than in any previous year. That may be due to the drier spring. Control of Cleavers by hoeing and spraying must continue, as this is likely to be a greater threat to the native flora.