## **Barmah National Park timeline Activities**

Added to May 2015 by Jill Pickering Added by Renee Neubauer and referenced 2020

20,000 years ago, a geological event lifted a large land area, blocking the Murray River. A huge lake formed & the river changed direction, flowing north & south around uplifted land. The resulting narrow river channel (known as the Barmah choke), ensured regular flooding of surrounding plains, creating a unique set of wetland habitats. (1)

- **1830s** Area first explored and settled soon after. Europeans and Aboriginals worked *sheep*, *cattle*, *horses and timber* from this area. Following European settlement of the area, land was extensively cleared to allow for *farming and agriculture*. (2)
- 1850 Sheep and cattle grazed around the Barmah region from mid to late 1800s. Periodic burning previously undertaken by Indigenous Australians was also halted. Logging of River Red Gum forests was an important part of late 1800s and early 1900s. (3 & 4)
- **1860** Punts began serviced this crossing 1860s and 1966. (5)
- 1863/4 Railway line from Bendigo to Echuca built, and consumed large volumes of sleepers cut from the red gums in the Barmah forest. The punt joins the tracks from Echuca to Yarrawonga where they crossed the Murray River. (6)
- **1866** Barmah surveyed and laid out in 1866, on rising ground near the punt. The resulting Barmah village became a river outlet for wool from surrounding pastoral stations. (7)
- **1871** Barmah township was small and consisted of a hotel, sale yard and a few houses.(7)
- **1871** A school was opened at Barmah. (7)
- **1876** A Barmah Post Office opened 16 Sept 1876. (8)
- **1877** St Michael's Catholic Church built [at approx. 100 people in the vicinity. (9)
- 1876/80 Barmah East Wine Palace (now Moira Lakes Wine Palace) built, original home of Joseph Waldo Rice, who set up Murray River Fishing Company at Moira Lakes. (9)
- **1877** Barmah was, for a time, a prosperous centre, whose chief industry was sawmilling. There were two major sawmills; that of <u>Robert Barbour</u> on the N.S.W. side of the river, and James MacIntosh's and E. Whitely's on the Victorian side. Much of the timber was exported to India for piles and railway sleepers until a government prohibition of the export of redgum, forcing closure of the Barmah mills (when?) (10)
- **1878** 'Barmah Common' gazetted (17,000 acres including lower half of Kinnear's Island).(11)
- **1878** Echuca Shire council built the first yards, as first managers of the Common.(11)
- **1879** Barmah Common was reserved for stock to be grazed, particularly in drought years.(11)
- **1882** Management transferred from Echuca Shire council to a committee of local farmers who employed a herdsman and arranged quarterly musters. (11)
- **1885** In July, over 220 cultivators used the Common. As a group they grazed 2,436 cattle.
- **1886** A town surveyed on rising ground near the punt and became **Barmah** village which became a river outlet for wool from surrounding pastoral stations & the shipping point for railway sleepers cut for domestic use and for export to India & New Zealand. (7)
- **1891** Barmah's population census recorded as 73. (7)
- **1892** Perrin organised thinning of 15,000 acres. Under the Forest Commission's trained foresters (ie Tingate) *silvicultural* became an integral feature of forest management. 121 acres were ring-barked in the Barmah muster paddock, to improve grass. (11&12)
- **1894** A Barmah Village Settlement brought more people to the area. Timber-cutting rose and fell with demand, and was milled locally or at Echuca.

- **1895** Under Forest Department control and referred to by many as 'State Common', a local farmers committee appointed a herdsman and maintained yards and fences. (11)
- Late 1800s/early 1900s, Barmah Forest visitors marvelled at the extensive 'emerald green' treeless grassy plains, dominated by highly productive semi-aquatic Moira Grass that provides important habitat for fauna, including colonially-nesting waterbirds. (13)
- **1902** Barmah Township Post Office opened on 2 May (8)
- 1907 Barmah PO opened 16 Sept 1876 renamed Barmah East.(8)
- **1911** Barmah's census populations recorded as <u>328</u> [highest recorded?] (7)
- **1911** Forest Dept. employed its own herdsmen. Two annual musters held. During musters up to the 1940s cattle were drafted in succession at Mannions Yards, the Cherry Tree Yards and finally at the Barmah Yards. (11)
- **1910s** Trade picked up later, with the expansion of the railway network and a new sawmill was opened by R. Evans, who shipped the sawn timber to <u>Echuca</u> on his steamboat in 1916, the *Edwards*. (14)
- **1920s** Barmah became a destination for campers and fishermen. Its popularity has grown, particularly for canoeing during flood times. (7)
- **1920s** Dams construction upstream from Barmah Forest had a vast impact on water flowing in the Murray River and instances of flooding. (15 & 16)
- **1924/4** Longer-term significant ecological changes in the Moira Grass plains first became apparent leading to substantial extinction of this interesting ecosystem (Chesterfield 1984).
- **1920s** Sleeper hewing was Barmah Forest's 2<sup>nd</sup> major revenue source(Charles Fahey history)
- **1930** Forest Commission Barmah map in 1930 estimated 13.5% (4,050 ha) of the forest as open Moira Grass plain. Over the next 50 years of altered flood regimes show Giant Rush & River Red Gums invading to reduce Moira grasslands to **5.5%** (Chesterfield 1986)
- **1936** The <u>Hume Dam</u> was operational from 1936, (17)
- **1939** Tom Galloway herded cattle in Barmah from 1939 to 1970 (18)
- **1939** The <u>Yarrawonga Weir</u> became operational in 1939.
- **1930s** Extent of Barmah Forest Moira Grass has declined since the Murray River's natural flood regimes were regulated in the late 1930s. Severe drought occurred in the region between 2001-2009, followed by large-scale flooding from late 2010 to early 2012. Despite drought-breaking floods, Moira Grass did not recover as expected. (Mapping ref) (19)
- **1947** Barmah's population census recorded as <u>183</u> [*Drop of 145 from 1911*] (7)
- **1950** Yielima & Yalca Shire grazing areas closed in 1950 & Mannions yards fell to disuse. (11)
- **1950s** Showed that weirs built on the Murray River for irrigation were decreasing the flood frequency in the Barmah forest. The change of rhythm decreased the germination of red gum seedlings and interfered with the breeding of water birds. Effluent from human and farm activity also adversely affected water quality. (7)
- **1950s** Tom Galloway built the herdsman's hut adjacent to the Barmah Muster Yards in the early 1950s, and at times brand trees for saw loggers and sleeper cutters (5)
- **1951** Barmah East PO closed. (8)
- **1954/84** Changes in Moira Grass plains are one of more significant longer-term ecological changes in the forest which first became apparent about 3 decades ago and lead to substantial extinction of this interesting ecosystem (Chesterfield 1984).
- **1955** Cherry Tree muster yards were abandoned as motor vehicles gave musterers more mobility, and all of the cattle were drafted at the Barmah Yards. (11)
- **1959** Flood regulators installed. (7)
- **1960** Gradual reduction in number of cattle grazed from 1960s. (11)
- **1961** Barmah's census populations recorded as <u>167</u> [*Drop of 22 from 1947*]. (7)

- **1966** Punt pulled out of the river and replaced by a bridge. (5)
- **1968** Government paid musterer commenced [1968-1984] & later supervised cattle grazing and timber harvesting until they ceased prior to Barmah National Park. Mature River Red Gums in Barmah can reach 45 metres in height and are up to 500 years old.
- **1970** Tom Galloway ceased herding cattle in Barmah after starting work in 1939. (5)
- 1970 Reports of wild horses, kangaroos, emus were trapped caused by flooding 400 balesOf hay ,70 bags of oats were aerial dropped in due to distress of starving animals. (31)
- **1970** Land Conservation Council was established by the Land Conservation Act 1970.
- **1975** Cattle quotas for summer & winter seasons determined by DSE on advice of Barmah Forest Grazing Advisory Committee, est. under National Parks Act 1975. Agistees grazed between 1,000 2,000 cattle in summer and 300 -700 cattle in Winter. (20)
- **1979** The <u>Dartmouth Dam</u> became operational from 1979. (21)
- **1980s** Forest Commission was successful and able to sustain saw mill production in Barmah 1922 through to the 1980s. *Ref: Barmah Forest – A History by Charles Fahey*
- **1981** From 1920 to 1981, cattle agistment was Barmah Forest's 3<sup>rd</sup> major revenue. (*Fahey*)
- **1982** RAMSAR lists Barmah Forest as a wetland of significance. (22)
- **1982** Grazing occuring in Ramsar site by grazing licences issued under Forests Act 1958. (23)
- **1984** Report on changes in Moira Grass plains as significant longer-term ecological change in the forest and substantial extinction of this ecosystem (Chesterfield 1984).
- **1984** Government paid musterer stopped working. [1968 to 1984]. (11)
- **1984** Hydrological changes have reduced fish and waterbird populations and their breeding habitats, particularly species dependent upon flood waters. Decline in numbers and species of birds breeding documented, particularly over last 30 years (Chesterfield et al.1984, Leslie 1988). Much of this is attributed to changed hydrological conditions, as flooding is required to provide suitable nesting conditions & sufficient feed to rear young successfully. Lack of drying phase in low lying wetlands, & consequent change in vegetation, disadvantaged species (grebes, terns, coots, avocets & stilts (Leslie 1998).
- **1984 Barmah Cattlemen's Association** formed to look after grazing after Department of Conservation and Lands divested itself of this responsibility. Mustering work was carried out by local farmer volunteers, some of which were descendants of original Common users. The muster became a wider social district event, with increasing participants, families & friends camping at the yards over several days each year. (11)
- **1984** Non-palatable Giant Rush become more widespread, favoured by the hydrological changes caused by river regulation, has (Chesterfield et al.1984).
- **1985** Importance of Barmah forest for recreation was reinforced by the opening of Dharuya Centre, jointly run by State government and the local Aboriginal community. (7)
- **1985** Timber cutting and summer grazing continue.
- **1985** Land Conservation Council Murray Valley area Final Recommendations published.
- **1986/8** Changes in Barmah forest vegetation are well documented (ie:Chesterfield 1986; Bren & Gibbs 1988; Leitch 1989). The condition of flood plain vegetation is strongly influenced by flood timing, frequency, duration and depth. These parameters have altered since construction of two major storages, Hume Reservoir and the Dartmouth Reservoir, followed by changes in botanical associations of floodplain communities (Chesterfield 1986, Bren and Gibbs 1988). The site quality of red gum provides a good indication of water availability under natural conditions, as many of the mature trees grew before regulation of Murray flows reduced their water supply.
- **1986** Area mapped 1979-80 by Chesterfield (1986) shows Moira Grass plain had reduced to 5.5% (1,650 ha) of the total area of Barmah Forest, a loss of approximately 2,400 ha.

- **1986** Chesterfield (1986) estimates that 1,200 ha of the Moira Grass plain has been lost to Red Gum regeneration and the remaining 1,200 ha to Giant Rush encroachment.
- **1986** Chesterfield (1986) suggested changes in the Barmah area water regime as a result of river regulation on the Murray has allowed *Juncus ingens* to out compete the Moira grass (*Pseudoraphis spinescens*) previously found to a much greater extent.
- 1987 Barmah State Park Established
- **1988** Moira grassland plains covered only 5.2% in 1988 (Bren and Gibbs 1988). Prior to 1934, Moira grassland plains covered 13.5% of forest area (Chesterfield et al. 1984). Some former Moira Grass plains have developed into rushlands because of prolonged flooding resulting from higher river levels in summer & autumn; whereas others have been encroached upon by river red gum seedlings where regulation caused a reduction in flood frequency (MDBC 1987).
- **1988** Forest flooding was often been observed to alter the quality of water within the forest. Morrison (1989) described water during a trial release December 1988 as being darkly coloured, less turbid and oxygen deficient as it passed through the floodplains.
- **1989** Under natural conditions, inundation occurred every year & lasted 8.7 months on ave. Dry periods lasting an ave 3.9 months would have occurred in 4 of 5 yrs. Under the **conditions current in 1989**, flooding duration had significantly decreased with dry periods lasting for more than 10 months at a time (Leitch, 1989).
- **1989** Sedimentation in Barmah Forest wetland areas appear to have increased (Leitch 1989). Forest wetlands, particular Top Island and Barmah Lakes, appear to be silting up very rapidly (Leitch 1989), requiring higher rivers to effectively flood these areas. Although siltation is a natural process, the rate of sediment build-up seems to have accelerated over recent years (DCE 1992).
- **1988/98** Noted:Under natural conditions, 70% of the forest would be flooded for average of 2.9 mths in 78% of yrs. Since regulation, this level of flooding is only experienced for an average of 1.3 mths in 37% of yrs (Leitch 1989, Bren and Gibbs 1988).
- **1992** Distribution and condition of the shorter-lived understorey species are more strongly influenced by recent watering conditions (MDBC 1992).
- **1992** Bren noted that the Moira Grass plains have continued to decline in extent in the 12 years since Chesterfield's assessment. (24)
- 1993 Surveys undertaken since 1993 indicate considerable decline in breeding events for Rufous Night Heron, spoonbills, egrets & cormorants compared to previous records. (25)
- **1998** Irrigation drainage identified as major contributor of nutrients, especially phosphorous to waterways in the catchment (GBCMA 1998).
- 1998 Native Title Determination Application by Yorta Yorta Aboriginal Community was heard by Federal Court December 1998 which determined the Yorta Yorta had no continuous association with the land, so no Native Title over claimed land & waters. (26)
- **2000/1** Mid-Murray Forest Management Plan (NRE 2002b) records timber produced from Barmah in 2000/2001 as; 2,631 m3of sawlogs, 842 m3 of sleepers and 1,056 m3 of residual logs (low grade logs by-product of sawlog/sleeper harvesting and regrowth management operations) were removed from the forest. Wood products derived from Barmah include; heavy construction timbers, railway sleepers, house stumps, furniture timbers, flooring, feature panelling, poles, fence posts, firewood & charcoal.
- 2000/1 River Red Gum species harvested, not Yellow Box, Grey Box & Black Box (NRE 2002b).
- **2001** Yorta Yorta appealed to the Full Bench of the Federal Court, which, in February 2001 upheld the previous decision. (27)

- **2002** May 2002, Yorta Yorta appealed the Federal Court's decision before the Full Bench of the High Court. (27)
- **2002** Full Bench of the High Court in December upheld the Federal Court's decision. (27)
- 2002 Localised floods, covering under 10% of forest, occur at least 8 times more frequently since regulation began (Chong & Ladson 2002) AND more likely to occur between December & April. Forest flooding is affected by earthen block banks, levees, and regulators constructed over the past 50 yrs to regulate flows & control bank erosion.
- 2003 Moira Grass plains constitute about 5.5% of the forest area (DCE 1992).
- **2005/6** A large volume of environmental water was released to the forest over the spring and summer of 2005-06, triggering a major bird and fish breeding event. (21)
- 2007/9 Prolonged drought conditions then prevailed and even some 'permanent' wetlands dried up. Giant Rush (*Juncus ingens*) took over much of the wetlands ~ growing one and an half metres tall in six months ~ whilst red gum saplings took over other areas.
- 2007/8 Cattle grazing in Barmah forest ceased. (28)
- **2010** Victorian Government created Barmah National Park(29)
- **2010** Blackwater event December 2010 resulting in substantial fish & crayfish death in the Murray River downstream of Barmah Forest (King *et al.* 2011), appearing to result in complete loss of crayfish downstream of the forest while some of the more mobile fish species have returned to the area (Raymond *et al.* 2012). Almost all the red river gum was flooded for the first time is 15 years and the park was temporarily closed. (7)
- **2010** Logging stopped following establishment of the River Red Gum national parks. (29)
- **2010/11** Biggest (natural) flood for years resulted in colonial water birds nesting and raising young and absence of hypoxic blackwater during the period. Highlighted the need for annual to near annual floodplain inundation to reduce the accumulation of organic compounds that lead to blackwater development. Timing of flood inundation & return flows is critical (avoid warmer months of summer & early autumn), plus the need for a drying regime on the floodplain during summer to early winter. (30)
- **2012**? Parks Victoria established the Barmah Horse Advisory Committee (BHAC) to provide specialist advice on horse management and consultation with the broader community to inform development of the Barmah Horse Management Strategy. (32)
- **2013** Late 2013, Parks Victoria decided all Barmah horses will be removed soon, before BHAC completed its assessment of management options or made recommendations.
- **2013** Barmah forest seasonal watering Proposal for 2013-2014 [return to natural flooding] Concerns now exist for alarming decrease in extent & cover of Moira Grass, that used to dominate the treeless Barmah Forest floodplain & serve as major waterbird feeding ground on which Ramsar status has been bestowed on the reserve. Moira Grass was recently mapped had approx.. 5% of the area that existed 70 years ago, Should benefit with recent dry regime **but only** if followed by a return to deep winter-spring floods. Increase natural peaks during early-to mid-spring to flush the floodplain during cooler conditions which will reduce the likelihood of a blackwater event.
- **2013/14** Budget cuts to Condition & Intervention monitoring will cause most, if not all, monitoring programs to cease & no data to measure if environmental targets are met.
- **2015** As of February 2015 the BHAC has not met since being told all horses to be removed.(35)
- **2015** Barmah Town has a hotel/motel, Caravan Park, school, boat ramp, picnic spots along the river and Anglican & Catholic churches. Logging & cattle grazing have ceased, and Barmah horses alone remain to show Barmah's post settlement cultural living heritage and colourful/productive history to pass on to future generations. (7)
- **2015** Hon.Lisa Neville No Barmah Brumby removal pending consultation process finished.(36)

- 2015 April 29, Barmah Horse consultation Group (BHCH) reconvenes after 18mth gap. (35)
- 2016 Barmah population 282 – ABS June 2017
- 2016
- /17 Barmah Millewa seasonal watering proposal – To minimise hypoxic black water, enhance vegetation health, recovery of native fish, minimise summer-autumn unseasonable flooding (37)
- Parties involved in the debate over the future of brumbies in Barmah National Park. 2016 Expressed disappointment over the lack of consultation. (38)
- 2016 Options to manage the impacts of brumby populations are being considered in partnership with Yorta Yorta & TOLMB and Parks Victoria (40)
- 2018/ Moira Grass was recorded in areas where it had previously disappeared. (39)
- 19
- 2018/ Unnatural floodwaters were forced upon the Barmah by MDBA that killed vital food sources and brumbies along with other wildlife. Unprecedented flooding, depth and duration made it a disastrous time with high death rates of animals both for the brumbies and native animals. Causing the mass starvation of hundreds of animals. Support groups stepped in and feed over 130 brumbies and countless native animals for approx. 4 months. Parks Victoria euthanised many brumbies that were deprived of their normal environment to survive in. Estimates are well over 80 brumbies deceased - true numbers would be unknown to the real toll within the park. Parks Victoria and Yorta Yorta jointly drafted a Strategic Action Plan – Protection of Floodplain Marshes 2020 – 2023. Submissions were made by many groups and individuals. The proposals will see dramatic changes to the use and management of the Park. 19
- 2020 Release of the Strategic Action Plan – Protection of Floodplain Marshes 2020 – 2023. Yorta Yorta have not released theirs as yet.
- Key dates: 1830s Cattle & horses began grazing & trees logged for timber.
  - RAMSAR lists Barmah Forest as a wetland of significance. 1982
  - 2007/8 Catle grazing ceased in Barmah Forest
  - Logging stopped in Barmah. 2010
  - 2013 Parks Victoria decide all Barmah horses will be removed soon.



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