## **PEEL-HARVEY**

The Decline and Rescue of an Ecosystem

Excerpt from book by Keith Bradby

## Wetlands Drained and Rivers Cleared

Excerpts from Chapter 3 'Drained and Dammed: How European settlers managed the waterways and wetlands', pp. 59-60 and 64-65, and Chapter 4, p. 77.

'The Drainage Bill, passed by Parliament in 1900, heralded the organised destruction of the rivers and many of the swamps through which fresh water reached the estuary. As a result of this, and of clearing the land for agriculture, much more fresh water reached the estuary than before, it reached the estuary faster, and it was full of soil washed from raw drain banks and new paddocks.'

'By 1939, most large wetlands had been drained to some extent, and most of the trees along the rivers and streams had been cleared. Logs and other snags were pulled from the rivers, to allow free flow of water from the new farmlands. Soil, eroded from the banks and the new farmlands, filled any deep pools that remained. Other rivers were converted into barren drains, and their floodplains were deprived of the life-giving annual flow of water. These changes, combined with the large-scale clearing and ringbarking that was underway by the late 1890s, decimated the habitats of the myriad of waterbirds and animals that once flourished on the coastal plain.'

'In 1932 and 1933, the Serpentine was cleared. From the railway line westward to 'Lowlands',

teams of men and horses systematically removed every living tree and every log from the river. Work was stopped at the 'Lowlands' boundary, as the sons of A.R. Richardson had legal ownership of their part of the river (on a title originally held by Thomas Peel) and refused to let the teams onto the property.

'Mild-mannered landholders like Eric Senior, who lived on the river then and continues to do so today, still feel angry at the erosion that took away the river banks, and the silt that poured down the river as a result of these modern engineering works. Senior can remember the horse teams in 1933 being unable to pull out a particularly large red-gum log in the river by his house. It remained there, and can be seen today. But all the other logs went, and with them went most of the large river pools formed by the tumble of water over these obstacles.

'An additional loss was that of the only large fish, the freshwater cobbler (*Tandanus bostocki*). Families living along the Serpentine in the 1930s could always catch themselves plenty of cobbler, but most fish had gone by World War II.

'In nearly all the sections of the river de-snagged [logs and debris removed] during the 1930s, landholders have allowed, if not encouraged, the flooded gums and the paperbarks to grow back and cover the scars of that time. But little of the original fauna has returned; the large

cobbler are long gone, mussels rare, and water rats virtually extinct. The rivers of this century are not the rivers that charmed the settlers of the nineteenth century.'

'Meredith was the name given to a belt of wet, sandy country between the middle reaches of the Harvey River and the Spearwood dunes. It was the last large area in the catchment to be released for agricultural development, and clearing continued into the 1980s. Work commenced on the Meredith Drain in 1970 and had been completed by 1974. Within six years, scientists were to target Meredith Drain as a significant source of nutrient pollution affecting the estuary.' Proudly brought to you by



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## Chronology

**1900:** first Drainage Act passed by State Parliament.

**1904:** following the winter of 1904, 1300 cubic metres of silt was removed from one section of the Harvey Main Drain.

**1985:** EPA placed a moratorium on drain construction in the Peel-Harvey catchment.

**2011:** Over 7,000 kilometers of gazetted public drains and private drains and creeks flow into the Estuary at Mandurah bringing with them >160 tonnes of phosphorus nutrient pollution per year. Efforts to modify the drains and reduce



Construction of the Harvey River Diversion with axe, shovels and wheelbarrows during the depression in the early1930s, courtesy of the Battye Library.

in the catchment continue, but monitoring shows that pollution levels are not dropping. Phosphorous pollution levels need to be halved for a healthy Estuary and rivers. (A. Del Marco, Peel-Harvey Drainage Reform Plan, 2008).

loss of fertilizers