

# PEEL-HARVEY

## The Decline and Rescue of an Ecosystem

Excerpt from book by Keith Bradby  
1997



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### Analysis Paralysis

*Excerpts from Chapter 5, 'The End of Certainty: Tackling the problem, 1970s', pp. 100 -105.*

'In 1970, the Health Surveyors of both the Murray and Mandurah Shires had commenced regular water sampling, partly because of concern at increasing bacterial contamination of river water, but also as part of their involvement with the Peel Inlet Conservation Advisory Committee. Several small studies were conducted in the early 1970s, and by 1974 some definite conclusions had been drawn. In July that year, a report prepared by the Department of Fisheries and Fauna confirmed that phosphorous levels in the estuary were high by world standards, and were probably responsible for the increased algal growth. Samples from the Serpentine and Harvey rivers held the most phosphorous, the highest levels being recorded during the months of greatest river flow.'

'So by the end of 1974, the immediate cause of the estuary's decline had been reasonably well established and documented. With hindsight, it seems curious that programs to reduce the amount of nutrients reaching the estuary were not quickly put in place.'

In 1973, the Environmental Protection Authority had established an Estuarine and Marine Advisory Committee (EMAC)

to focus on coastal issues. 'Unfortunately, there was not a similar level of interest in the catchment of the estuary. Despite the obvious conclusion that changes in the estuary were the result of changes in the catchment, the initial studies were to concentrate largely on the waterbody itself.'

'In 1976, the EPA finally commissioned a major study of the Peel-Harvey estuary, and Dr Ernest Hodgkin was appointed to head it. The study ran for four years. Its objectives were *"to further our understanding of the working estuarine ecosystems in south-western WA ... and to determine the cause and mechanisms of weed growth and accumulation in Peel Inlet"*.'

'By the final year of the study, it was concluded that the main cause of the weed problem was the excess of phosphorus in the estuary water, and that superphosphate used on coastal plain farmland was the principal source of the phosphorus. Much of this annual nutrient input stayed in the estuary, with very little flushed to the sea. The critical conclusion of the study was that *"The only satisfactory long term solution to the problem will be to substantially reduce the availability of nutrients, especially phosphorus, to algae"*.'

'EMAC prepared its summary report on the study, together with a number of firm

recommendations for management.' 'In early June 1981, Ernest Hodgkin and other scientists involved in the study, along with members of the EPA, briefed a special meeting of Cabinet Ministers holding portfolios relevant to the study.

'Owen Tuckey, by then chair of the Peel Inlet Management Authority, also attended this briefing, and it left him very concerned that positive action was as far away as ever. He sent a long and detailed letter to Premier Sir Charles Court, reporting that he was: *"... greatly dismayed at the apparent lack of interest shown in the report, despite the fact that Dr Hodgkin had stressed the urgency of the situation during his address"*.'

'With the prodding of Tuckey and others, the EMAC report was approved by Cabinet in August 1981, with its recommendations virtually unchanged. But there was no provision for funds to implement the recommendations, and this, combined with the delays and lack of public discussion, was not a good start to the 1980s.'



Dr Ernest Pease Hodgkin

### Chronology

**Nov 1970:** President of the Mandurah Professional Fishermen's Association quoted in the local press: '...fishermen were convinced the use of superphosphate and fertilisers on farm land and the water run-off in winter accelerated algae growth'.

**Dec 1972:** Peel Inlet Advisory Committee calls for 'a long term biological and hydrological study of the estuary and its associated waters to work out remedial action'.

**1976 - Nov 1980:** Dr Ernest Hodgkin leads more than 20 senior scientists in a study of the estuary, published as the *Peel-Harvey Estuarine System Study*.

**2011:** "History has a habit of repeating itself. Often it is the lack of political will to act early, that leads to identified problems exacerbating before the weight of evidence and public demand demands enactment of solutions." Professor Peter Rogers, Fisheries Management.

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