

Application of Phoslock™, an innovative phosphorus binding clay, to two Western Australian waterways: preliminary findings.

Journal Details

Title: *Application of Phoslock™, an innovative phosphorus binding clay, to two Western Australian waterways: preliminary findings (2003).*

Authors: *Robb, M., Greenop, B., Goss, Z., Douglas, G. & Adeney, J.*

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Results: *Phoslock was effective in significantly reducing the phosphorus concentrations from both the bottom and surface waters at the Canning and Vasse River study sites.*

Summary of Findings

This paper describes the findings from a Phoslock application to two riverine sections of estuaries along the coastal plain of south west Western Australia. Both rivers are subject to blue-green algal blooms in the summer months.

Sections of the Canning and Vasse Rivers were dosed with Phoslock in the summer of 2001/2002. Phoslock was applied to the rivers as a slurry from a spray manifold on a boat. An initial application of 20 tonnes (dry weight equivalent) of Phoslock was made to a 650 m section of the Vasse River during October 2001, with two subsequent applications of 10 tonnes each in December 2001 and January 2002. An initial application of 30 tonnes of Phoslock was made to a 1.5 km section of the Canning River in November 2001. A subsequent application of 15 tonnes was made in January 2002 at the onset of hot weather.

Results from the field trial showed that there was a substantial shift in phosphorus availability in both the Vasse and Canning trial sites. It appeared that the application worked better at the Vasse site and it was possible that the slower removal of Filterable Reactive Phosphorus (FRP) in the Canning site was probably due to FRP laden water moving from the control site into the Canning trial site. However, as noted in previous trials, Phoslock was effective in significantly reducing the phosphorus concentrations from both the bottom and surface waters at the field sites studied in this publication.

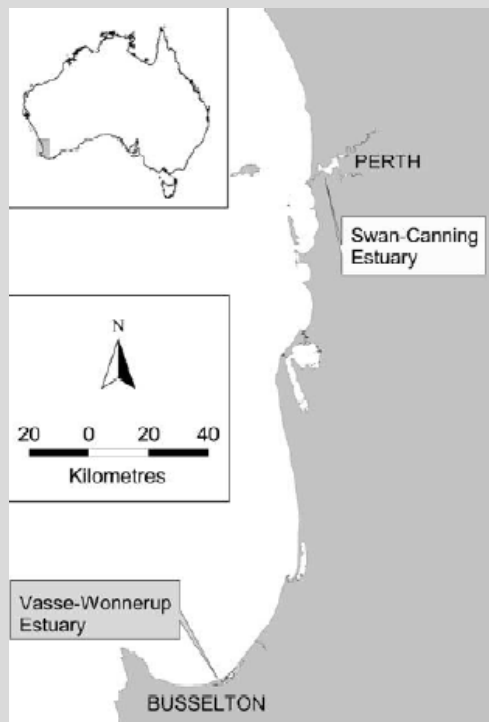


Figure: Location map of the Swan Canning and Vasse Wonnerup estuaries on the Swan Coastal Plain of Western Australia (from Robb et al., 2003).