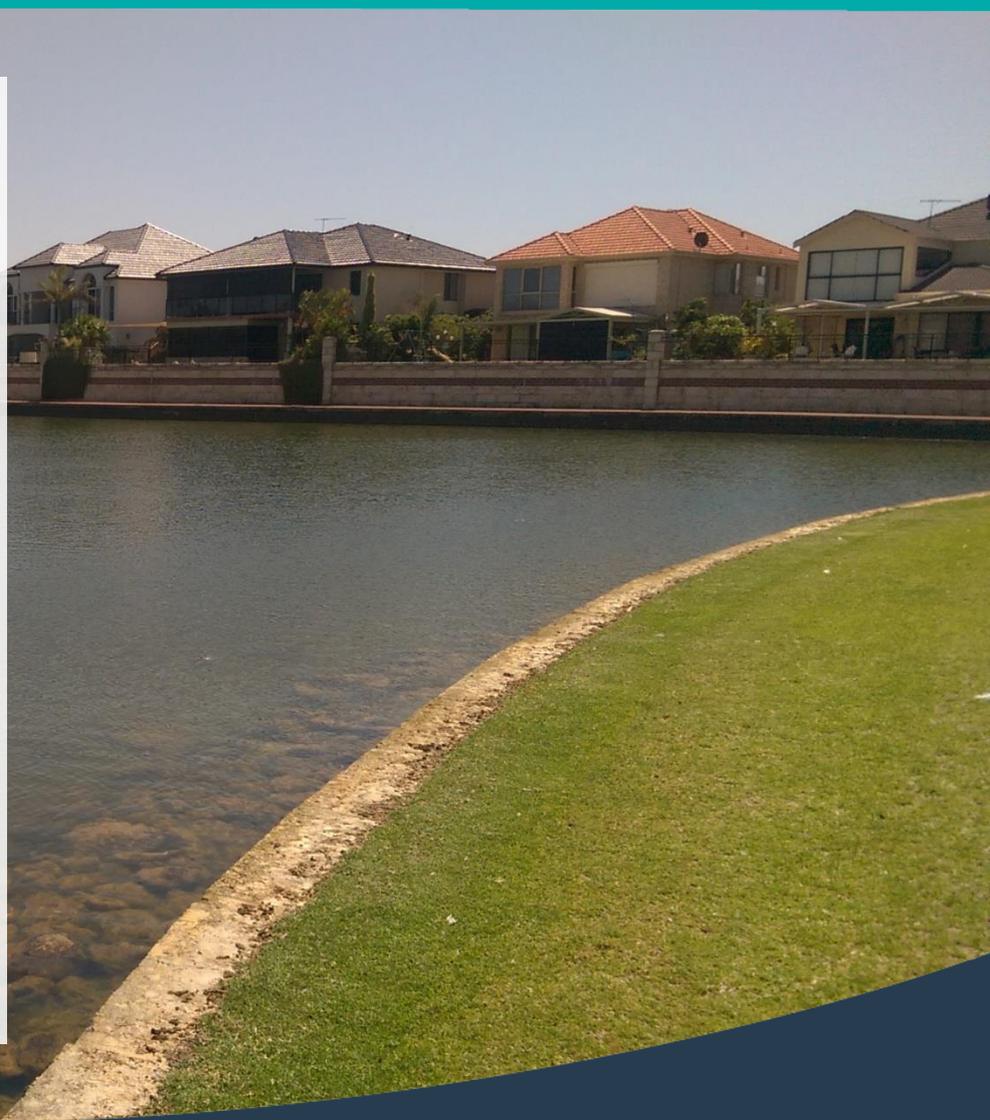


Invitation to participate

# Understanding the relationship between land use and water quality

## Project aims

1. to provide an evidence based understanding of the risks and benefits to water quality in the Peel Harvey estuary system of various potential land use options in the Peel-Harvey catchment.
2. To develop an agreed methodology for setting site and land-use specific water quality targets that are outcome focussed, achievable and foster community and industry understanding of the environment.



**This project will investigate examples of water quality and environmental targets and seek to establish a methodology for application in the Peel Harvey estuary.**

## Project outline

**This project will investigate international examples of water quality and environmental targets and seek to establish a methodology for application in the Peel Harvey estuary.**

The investigation will review the ways that different types of targets have resulted in different levels of community and industry participation in their achievement and will consider the applicability of these learnings in the Peel Harvey catchment.

Broad, 'whole of catchment' phosphorous load reduction targets were established by the EPA in the Water Quality Improvement Plan for the Rivers and Estuary of the Peel-Harvey System - Phosphorus Management (2008). These targets have not been successfully translated into site and land-use specific targets that can be easily used to support the design of water quality treatment measures.

An important component of this project will be the establishment of specialist working groups to provide input to the development of appropriate and achievable targets and methodologies. This approach is expected to result in high levels of community and industry acceptance and understanding that will be necessary for the ultimate successful adoption of targets.

The project will include the following specific phases:

1. Literature review specifically focussing on the development and use of environmental and water quality targets. The review will consider the use of numerical load or concentration targets as well as more outcome focused targets such as health indicator species.
2. Desktop review of existing available data and modelling tools focussing on pattern identification in relation to land use category, soil condition and other characteristics.
3. Identification of water quality risks, benefits, impacts and development of practical options for mitigation and management related to each land use category. This task will require input from a broad range of participants including state government agencies, local government environmental managers, industry practitioners and the research community.

4. Development of an agreed methodology for setting site specific water quality targets. This task will require input from a broad range of participants including state government agencies, local government environmental managers, industry practitioners and the research community.

## Project benefits & beneficiaries

**WA State government** – this project is expected to contribute to the delivery of commitments number 35 and 38 of the State Government's Green Growth Plan: Action Plan G State Environmental Objectives. the project will provide evidence-based information to support land use planning decision making agencies in their determination of appropriate land uses within the Peel-Harvey catchment.

**Local Government** – the project will provide guidance for appropriate design and management of drainage assets in urban and agricultural areas to facilitate improved environmental outcomes in the Peel-Harvey catchment.

**Landowners and developers** – the project will assist landowners in understanding the impacts and opportunities of their current and potential future land uses and provide guidance on ways that land use change can positively contribute to water quality improvements.

## Project cost and timeframe

**The approximate expected cost for the completion of this project is \$60,000 and it can be completed in a timeframe of approximately 6 months.**

**“...the project will provide guidance for appropriate design and management of drainage assets in urban and agricultural areas to facilitate improved environmental outcomes in the Peel-Harvey catchment ...”**

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