Coastal Catchments Initiative

In June 2008 the Swan River Catchment project was set up to protect its important ecological values and support the Australian Government’s Coastal Catchments in Australia: The Trust was responsible for preparing the regional WQIP for the Swan River Catchment. The regional WQIP provides a road map for reducing nutrient levels in the river system using scientific data and identifying key catchments to support both proposed water use sites.

Background

The Swan River Catchment (SERCUL, 2009) has a diverse array of land uses including agricultural, industrial, commercial, residential and recreation. The Swan River is important for the economic wellbeing of the area, providing opportunities for tourism and recreation. Many of the benefits it provides are complementary and can be achieved through integrated management of the whole river system.

The Southern River Catchment is an area of diverse land uses, including urban, industrial and agricultural activities. The Southern River Catchment is one of the most important rivers in the State, providing significant environmental and social benefits.

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The Swan River Trust (SERT), the Department of Environment and Conservation (DEC), the Department of Planning, Industry and Infrastructure (DPII), and the Department of Water (DoW) have been working together to develop a coordinated approach to the management of the Southern River Catchment.

Southern River Canning Water Quality Improvement Plan

Southern River Canning Water Quality Improvement Plan (WQIP): The WQIP is an integrated management plan for the Southern River Catchment that includes actions to protect and restore the river’s ecological and water quality values.

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Steps to develop a local WQIP

1. Existing activities

What are we doing to improve water quality?

Local WQIPs link to existing projects and programs supported by State, Federal and Western Australian Government agencies, regional NRM groups, community groups, local authorities and the Trust. Such initiatives and programs contribute to improving water quality and inform the development of local WQIPs.

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Strengthening Landscape strategies

The City of Gosnells is increasing river water use in public open space facilities through Catchment Strategy planning and development planning and development. The Trust and Armadale are also increasing river water use in public open space facilities through Catchment Strategy planning and development planning.

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2. Condition: What are the water quality and quantity issues in the Southern River Catchment?

Water quality is monitored fortnightly by the Department of Water throughout the Southern River Catchment. Surface water quality sampling sites are located throughout the Southern River Catchment from 2007-2008. The sampling programme includes groundwaters, a combination of TN levels between 0.02 mg/L and 5 mg/L, and a median for TP of 0.18 mg/L with some samples exceeding 120 mg/L and a median for TP of 0.18 mg/L with identified groundwater levels of TN between 0.02 mg/L and 5 mg/L.

3. Values, objectives and targets: What quality and quantity improvements would we like to achieve in the Southern River Catchment?

Treatment technologies and planning

Military objectives and targets

Treatment technology plans

Management strategies

Implementation

4. Implementation: How do we achieve the water quality targets?

The Southern River Catchment WQIP aims to reduce nutrient loads entering the Canning River through nutrient reduction and management by improving current management strategies and developing new management actions. Selected new projects aligned the pathway for nutrient and contaminant losses to waterways.

The WQIP and supporting partners will implement the WQIP to ensure the sustainability of quality improvements and targets. The WQIP and supporting partners are committed to working together to undertake new research, monitoring and management actions.

High-level of nitrogen, phosphorus and non-nutrient contaminants

The amount of water entering the Canning River from the catchment is important for maintaining environmental values in the catchment. Data collected at gauging station SH4192 from 1997-2006 indicated annual flow ranged from 4 to 13 gigalitres per year. With climate change this variability is likely to continue.

Maintaining seasonal flow variability

Treatment from source planning

Management strategies

Implementation

Load reduction target for total phosphorus

Load reduction target for total nitrogen

The total target annual load on the Swan-Canning Catchment was estimated through the Department of Water (2007) Environmental Water Requirements study. The target for non-nutrient contaminants in the Southern River Catchment is 80% at the 95% probability level.

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