# CASE STUDY 010 2011-2013



People Biophysical





# Parkfield Lake Nutrient Management Basin (Restoring wetlands, transforming local neighbourhoods)

The Parkfield Lake remodeled an unsightly, degraded artificial lake that suffered from flooding and algal blooms into an attractive nutrient stripping wetland with surrounding parklands removing an estimated 75kg of Phosphorus per year.

Working with the City of Kwinana, the Peel-Harvey Catchment Council ensured the project reduced nutrient pollution to local waterways while also reducing local flooding risk, creating new recreational areas and habitat for wildlife. The site had historically been used for marketing gardening and was transitioning to residential use. A key component of the project was to remove the interaction between the artificial wetland on the site and the local groundwater acquifer. This removed the main flow pathway by which nutrients concentrated on the site had been entering the nearby Peel Main Drain and contributing to excessive nutrient levels in the Serpentine River and our Ramsar listed estuary.

The project included an important community consultation process to ensure resident's views were used to enhance and refine the design of the project.

\$250,000

\$846,895

# FUNDING PROGRAM

Australian Government's Caring for Our Country (CfOC)

### PHCC PROGRAM Filtering the Nutrient Storm II

PHCC PROJECT Parkfield Lake Nutrient Management Basin

# FUNDING

Australian Government (CfOC)	
City of Kwinana	

#### STEERING COMMITTEE

Jan Star (PHCC), Bob Pond (DoW), Rob Summers (DAFWA), Jane O'Malley (PHCC), Kim Wilson (PHCC)

#### STAKEHOLDERS

- City of Kwinana
- Department of Water
- Local Bertram residents

#### BENEFICIARIES

- Local residents
- City of Kwinana

PROJECT MANAGER Juan Luis Montoya



"The lake has been great for the community and has helped improve our local waterways. It also mitigated a mosquito problem and improved safety, so it ticked a lot of boxes for us."

~Ashley Harding, Manager Environmental Services, City of Kwinana ~

# **KEY ACHIEVEMENTS**

- Reduction in algal blooms once common on the site due to its previous use as a market garden
- Reduced nutrient and pollutant flow into the Peel Main Drain, through construction of biofilter and nutrient retentive strormwater system. An estimated 75kg of Phosphorus removed per year.
- Reduced health risk (mosquito borne disease) due to less free-standing water and increased wetland habitat diversity
- Creation of an interactive park that is valued by the community
- Improved park access, maintenance and safety due to flood control
- Improved aesthetics
- Extensive landscaping works, including retention of mature trees and the introduction of new native vegetation
- TME Town Planning (Project Consultant) won the 2013 AWA (Australian Water Association) Urban Drainage Asset Innovation Award for this project.

# LOCATION

Corner of Bertram Rd and Parkfield Blvd, Bertram WA



