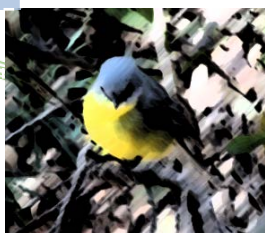


# SUTHERLAND SHIRE WATERCOURSE ASSESSMENT & REHABILITATION PRIORITISATION

## OVERVIEW

2012



# AN OVERVIEW OF SUTHERLAND SHIRE WATERCOURSE ASSESSMENT AND REHABILITATION PRIORITISATION STUDY REPORT

The Watercourse Assessment and Rehabilitation Prioritisation Plan is organised in three volumes:

- **Volume One** provides a review of existing knowledge, including the legislative framework, principles of waterways restoration, predisturbance templates, detailed methodology, overview of techniques, detailed designs for selected sites, prioritisation rationale and plan, and summary of works for catchments and subcatchments.
- **Volume Two** (this volume) presents a review of existing knowledge for each catchment and subcatchment, including waterways, stormwater network, SQIDs; historic and current land use; geology, geomorphology and soils; vegetation communities, threatened species, threatening processes, and a recreated waterways map.
- **Volume Three** comprises the results of the watercourse assessment, ranking of reaches based on ecosystem assets and problems, a sketch map indicating the location of key assets and problems, an assessment of the stormwater network and catchment impervious surface for each reach, and provides rehabilitation objectives, works and activities.

To assist with navigation of the Watercourse Assessment and Rehabilitation Prioritisation Plan, a summary of the contents of each volume is provided below.

## VOLUME ONE: The Watercourse Assessment and Rehabilitation Prioritisation Plan

### CONTENTS

- 1 INTRODUCTION
  - 1.1 Project Background
  - 1.2 Objectives
  - 1.3 Location and study area
- 2 LITERATURE REVIEW
  - 2.1 Sutherland Shire: An overview
  - 2.2 Natural Resources in Sutherland Shire
  - 2.3 Distribution of drainage systems
  - 2.4 The historic role of waterways as transport corridors
  - 2.5 Current Management Policies
  - 2.6 Current Management Practices
  - 2.7 Management of Urban Bushland
  - 2.8 Linking Management with Surrounding Areas
  - 2.9 Degrading Processes in Coastal Streams
  - 2.10 Waterways and Riparian Assessment
  - 2.11 Rehabilitation in Urban Streams



**THE FOLLOWING INFORMATION WAS REVIEWED FOR EACH CATCHMENT:**

- 1) CATCHMENT OVERVIEW
- 2) WATERWAYS
  - a) SUMMARY OF DRAINAGE SYSTEM
  - b) MAJOR NAMED WATERWAYS
- 3) GEOLOGY, GEOMORPHOLOGY AND SOILS
  - a) GEOLOGY AND GEOMORPHOLOGY
  - b) SOILS
  - c) SUMMARY OF CONTAMINATION ISSUES
- 4) LAND USE
  - a) HISTORIC LAND USE
  - b) CURRENT LAND USE
  - c) CATCHMENT IMPERVIOUS SURFACE (% AND DISTRIBUTION)
- 5) VEGETATION COMMUNITIES
  - a) SIGNIFICANT VEGETATION
  - b) EXTANT MAPPED VEGETATION COMMUNITIES
  - c) LEP 2006 SIGNIFICANT VEGETATION
- 6) THREATENED SPECIES
  - a) THREATENED SPECIES: FLORA RECORDS
  - b) THREATENED SPECIES: FAUNA RECORDS
- 7) THREATENING PROCESSES
  - a) SUMMARY OF IMPACTS

**THE FOLLOWING INFORMATION WAS REVIEWED FOR EACH SUBCATCHMENT:**

- 1) SUBCATCHMENT OVERVIEW
- 2) WATERWAYS
  - a) WATER QUALITY ASSESSMENT
  - b) RETICULATED STORMWATER SYSTEM
  - c) LOCATION OF SQIDS
- 3) GEOMORPHIC SETTING
  - a) GEOLOGY, GEOMORPHOLOGY AND SOILS
  - b) TOPOGRAPHY
  - c) ASS/PASS, URBAN SALINITY
  - d) OTHER CONTAMINATION ISSUES
- 4) LAND USE
  - a) HISTORIC LAND USE
  - b) CURRENT LAND USE
  - c) CATCHMENT IMPERVIOUS SURFACE (% AND DISTRIBUTION)
- 5) VEGETATION COMMUNITIES
  - a) LEP 2006 SIGNIFICANT VEGETATION
  - b) MAPPED VEGETATION COMMUNITIES
  - c) BUSHLAND RESERVES AND RESTORATION
- 6) THREATENING PROCESSES
  - a) INSTREAM IMPACTS

- b) RIPARIAN IMPACTS
- 7) RECREATED WATERWAYS MAP

## **VOLUME THREE: Reach proformas for surveyed reaches**

### **CATCHMENTS AND SUBCATCHMENTS:**

- 1) Port Hacking catchment
  - North West Arm
  - South West Arm
  - Turriell Bay
  - Gymea Bay
  - Yowie Bay
  - Dents Creek
  - Saville Creek
  - Burraneer Bay
  - Gunnamatta Bay
- 2) Botany Bay catchment
  - Weeny Bay / Quibray Bay
  - Woolooware Bay
- 3) Georges River catchment
  - Coronation Bay
  - Oyster Bay (West)
  - Carina Bay
  - Sylvania Waters
  - Gwawley Creek
  - Oyster Bay
  - Oyster Creek
  - Mill Creek
  - Great Moon Bay
- 4) Woronora River catchment
  - Audrey Bay / Thompsons Bay
  - Loftus Creek
  - Mandowie Creek
  - Bottle Creek
  - Bonnet Bay
  - Forbes Creek
  - Still Creek
  - Woronora River Tidal
  - Woronora River Non-tidal
  - Woronora River North