





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

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VOLUME TWO: Catchment and Subcatchment Profiles

Information was reviewed and presented for six catchments. Two of these catchments have streams that drain directly to the ocean (Pacific Ocean), or are located wholly within Royal National Park (Hacking River), and draining directly to Port Hacking. The results of an extensive review of literature for catchment and subcatchment histories and current conditions are presented in the following chapters:

- Chapter 1: Botany Bay catchment profiles
- Chapter 2: Georges River catchment profiles
- Chapter 3: Hacking River catchment profile
- Chapter 4: Port Hacking catchment profiles
- Chapter 5: Pacific Ocean catchment profiles
- Chapter 6: Woronora River catchment profiles

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