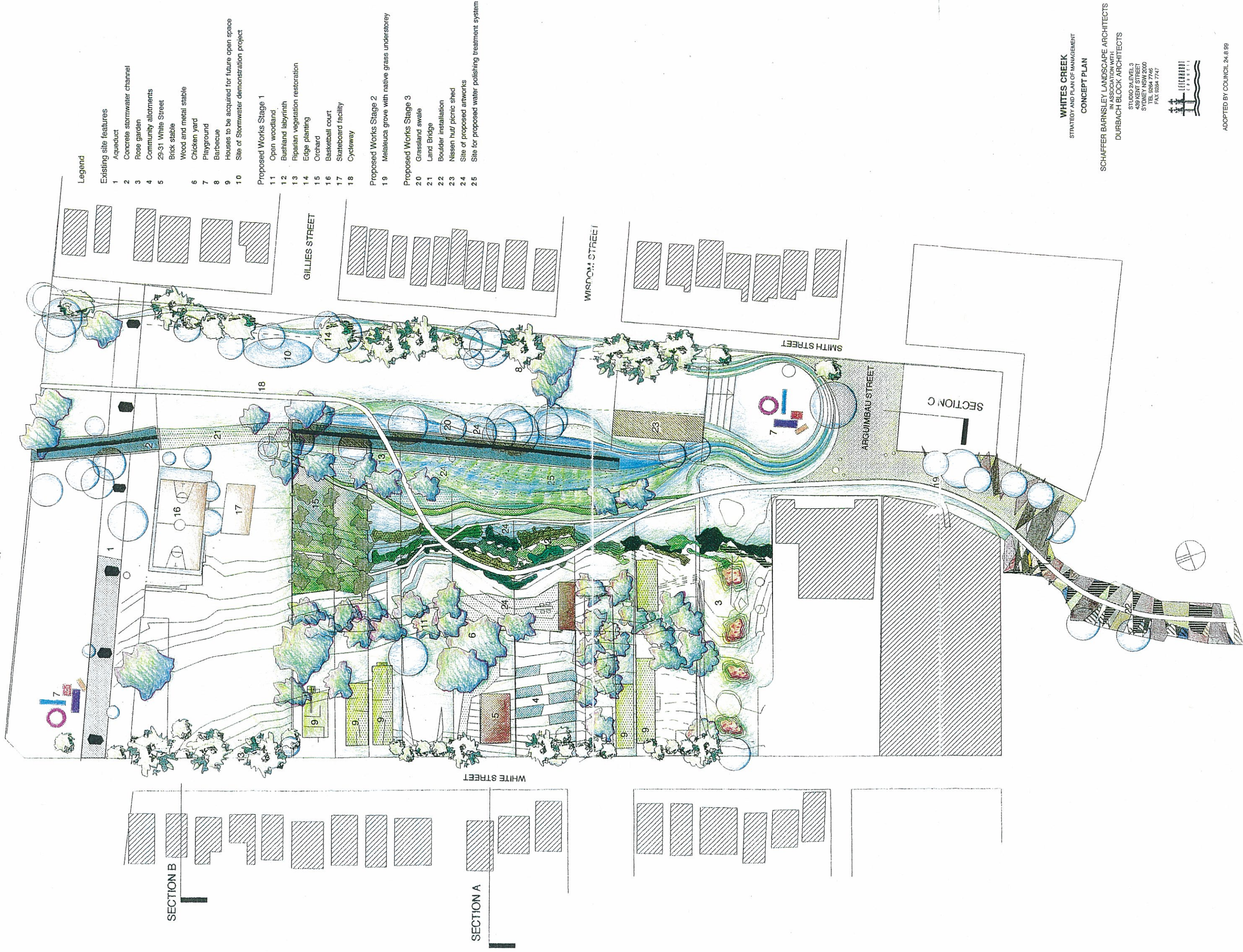


6.0 MAPS + DRAWINGS

PIPER STREET



Legend

Existing site features

- 1 Aqueduct
- 2 Concrete stormwater channel
- 3 Rose garden
- 4 Community allotments
- 5 29-31 White Street
- 6 Brick stable
- 7 Wood and metal stable
- 8 Chicken yard
- 9 Playground
- 10 Barbecue
- 11 Houses to be acquired for future open space
- 12 Site of Stormwater demonstration project

Proposed Works Stage 1

- 11 Open woodland
- 12 Bushland labyrinth
- 13 Riparian vegetation restoration
- 14 Edge planting
- 15 Orchard
- 16 Basketball court
- 17 Skateboard facility
- 18 Cycleway

Proposed Works Stage 2

- 19 Melaleuca grove with native grass understorey

Proposed Works Stage 3

- 20 Grassland swale
- 21 Land Bridge
- 22 Boulder installation
- 23 Nissen hut/ picnic shed
- 24 Site of proposed artworks
- 25 Site for proposed water polishing treatment system

WHITES CREEK

STRATEGY AND PLAN OF MANAGEMENT

CONCEPT PLAN

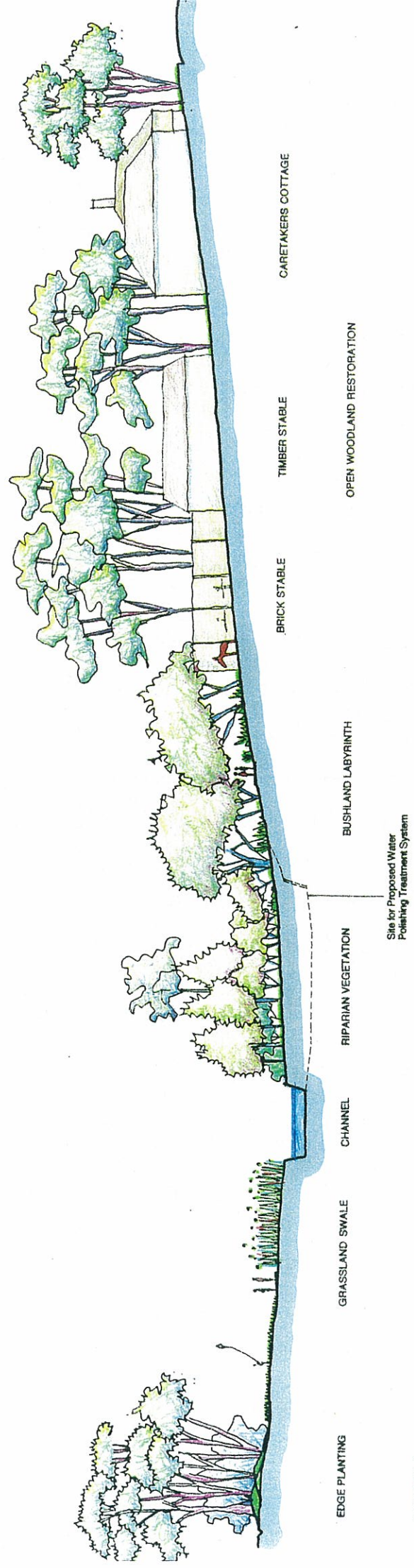
SCHAEFER BARNESLEY LANDSCAPE ARCHITECTS
IN ASSOCIATION WITH
DURBACH BLOCK ARCHITECTS

STUDIO 24 LEVEL 3
439 KENT STREET
SYDNEY NSW 2000
TEL 9284 7746
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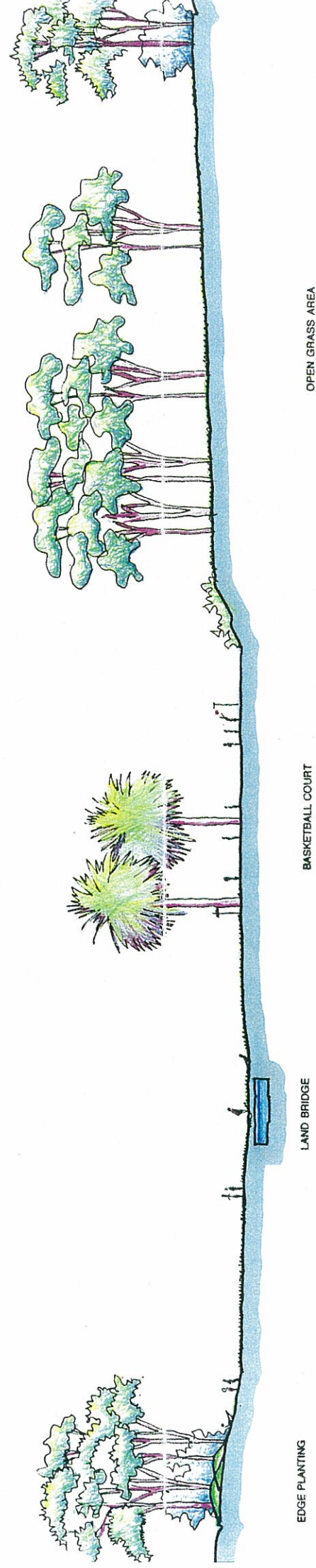


ADOPTED BY COUNCIL 24.6.99

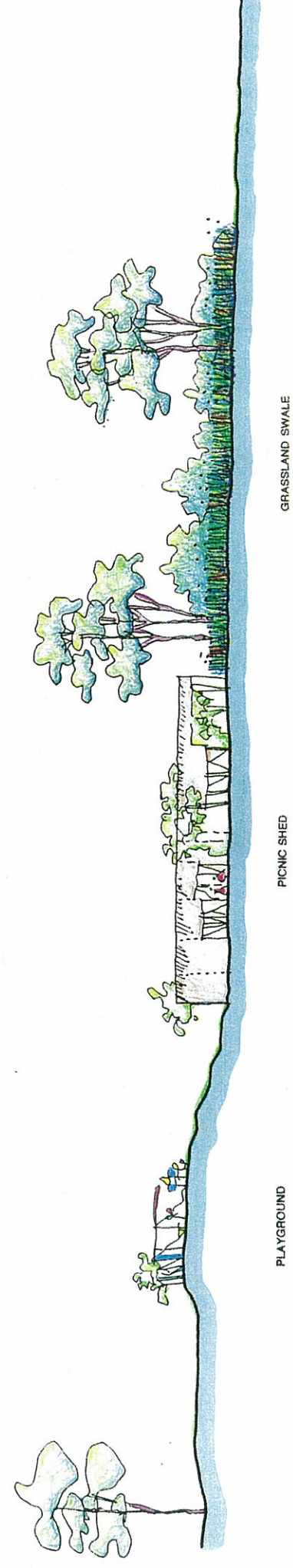
SCALE 1:500



SECTION A



SECTION B



SECTION C

WHITES CREEK
STRATEGY AND PLAN OF MANAGEMENT

SECTIONS

SCHAEFFER BARNSLEY LANDSCAPE ARCHITECTS
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ADOPTED BY COUNCIL 24.8.95





COMMUNITY LAND

Open Space: Foreshore Park/Creek Corridor

- 1 Whites Creek Valley Park
connects foreshore and Whites Creek reserves, grassy areas and shaded areas, paths, seats, bubbler, playground, barbecue, picnic tables
- 2 Cohen Park
cricket pitch, tennis courts
- 3 Johnstone's Creek
basic paths, no facilities; mixture mown grass, some native bushland
- 4 J V McMahon Reserve
pathway/bridge, mostly mown grass, some tree planting; seats
- 5 A V Henry Reserve
pathway, mostly mown grass with occasional tree and shrub planting including native species
- 6 Federal Park
amenities block, skateboard ramp; seats; bridge access to neighbouring parks; extensive grassy area
- 7 Jubilee Park
oval - mainly cricket and hockey, includes amenities blocks, spectator seating and parking; mature trees along perimeter; seats, bubbler

8&9 Bicentennial Park

extensive mown grass and pathways - good dog walking and water viewing, lighting, playground under fig, shelter, picnic area, mature trees, future recreation planned; bridge access to neighbouring park

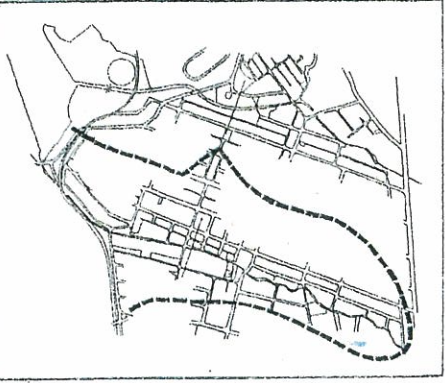
Open Space: Small/Pocket Park

- 10 Gray Street Reserve
play equipment, seats, grassed area
- 11 Styles Street Reserve
- 12 Hinsby Park
seats, play equipment, paths, stone monument - cultural flavour
- 13 Piper Street Reserve
grassed area
- 14 Lewis Road Reserve
bubbler, rocky outcropping
- Open Space: District Park**
- 15 War Memorial Park
seats, play equipment, historic, cultural role

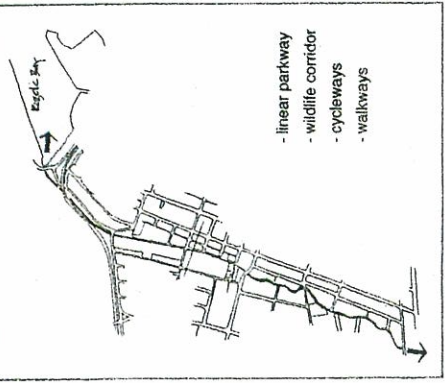
Community Centres:

- 16 Hilda Butler Extended Hours Kindergarten
- 17 Annandale Neighbourhood Centre

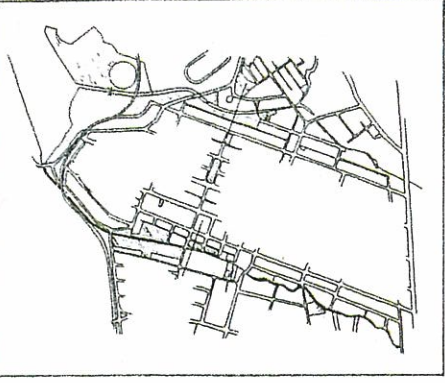
DRAINAGE CATCHMENT



CREEK CORRIDOR

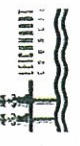


LINKAGES - a network



WHITES CREEK
STRATEGY AND PLAN OF MANAGEMENT
CONTEXT PLAN

SCHAEFFER BARNESLEY LANDSCAPE ARCHITECTS
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APPENDIX 7.1

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18 May 1998

Section 1

Original flora and native species suitable for revegetation of Whites Creek Valley Park

Prepared by:

Tony Rodd

Section 2

DRAFT

**Flora assessment and rehabilitation planning:
Whites Creek Valley Park**

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Whites Creek Valley Park

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2.2 Soils

3.0 Vegetation

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4.0 Previous Studies

5.0 Rehabilitation priorities

5.1 Soil and landform

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5.4 Nutrient management and wetland/nutrient retention systems

5.5 Planting

5.6 Weeds, staging and designing rehabilitation

6.0 In conclusion

Acknowledgments

References

Figures

1. Remnant bushland areas surveyed
2. Location of Whites Creek Valley Park
3. Location of trees at Whites Creek Valley Park

Tables

1. Occurrences of native species in bushland areas within 5 km of Whites Creek
2. Tree species and their diameter at breast height

Appendices

1. Floyd (1996) Whites Creek Catchment. Water is life 1. Brochure prepared by Friends of the Earth.
Floyd (1997) Upper Catchment Management Whites Creek. Report prepared by Friends of the Earth.

Section 1

Original flora and native species suitable for revegetation of Whites Creek Valley Park

1.0 Indigenous Vegetation of the Whites Creek site

The Leichhardt Local Government Area (LGA) stands out among suburban Sydney LGAs by the almost total lack of remnant native vegetation in any of its parks and reserves. Any attempted restoration of its natural vegetation must therefore rely on inference, from surviving vegetation remnants in nearby suburbs with similar topography and soils, in other LGAs—assuming, that is, that there exist no sufficiently detailed and reliable records of Leichhardt's original vegetation. Judging from the coverage of Leichhardt LGA in Benson & Howell (1990) this assumption seems justified, and no further attempt has been made here to seek out historical records.

The Whites Creek valley is almost as far removed from its original, pre-white settlement state as it is possible to be. The creek itself has been converted to a concrete canal and covered over with a concrete slab in its upper part (above Hudson Street). The creek banks and lower valley slopes have long been cleared of all native tree cover and over the past two centuries have undergone a variety of uses, presumably at first agricultural and later urban fringe-residential followed by industrial and high-density residential in the early 20th century. There has been extensive dumping and landfill along the banks, some of it resulting from the canalisation of the creek, but building rubble, furnace ash, rusted ironmongery, and garbage are all in evidence. Even on those parts of some residential blocks where the original valley profile appears to be showing, the soil surface is altered by a long succession of constructed gardens, animal enclosures, and so on.

In attempting to reconstruct the vegetation of the middle part of Whites Creek valley, we should firstly try to infer what were its major soil types at the time of first white settlement.

Most of the valley falls into the area of outcrop of Hawkesbury Sandstone, though its very head in the vicinity of Parramatta Road is on the Wianamatta Shale. The shale extends as a thin capping northward along the ridge lines on either side of Whites Creek (Sydney 1:100,000 Geological Map). Few outcrops can now be seen, due to the heavily built up nature of the area, but one sandstone outcrop is visible close to the site at the lower end of Ilka Street. Soils would thus be derived largely from sandstone, but with some downwash of the shale-derived soils with their higher clay and nutrient content. The creek line itself would have had some alluvial soils, though judging from the valley profile, which is shallowly V-shaped at this point with little in the way of a creek flat, these would have been very limited in extent.

These sandstone valley-bottom soils are characteristically deep, moderately fertile, and well drained but with a reliable supply of soil moisture. Such soils commonly support moderately tall forest, with an understory containing many plant species of more mesic environments, often thought of as 'rainforest elements'.

Looking at the surviving native vegetation in the Sydney metropolitan area, the factors that most seem to influence its structure and floristic composition appear to be:

- soil type, whether derived from shale, sandstone, dunes, or alluvium, with consequent variation in soil depth and fertility
- distance from the ocean, with consequent variation in exposure to salt-laden winds and also temperature regime

- topographic situation, e.g. ridge top, valley bottom, slope, gully, with consequent variation in shelter, humidity, exposure to sun, soil moisture etc. Total topographic relief, i.e. height from valley bottom to ridge top, is part of this factor.

Taking into account these factors, a number of bushland reserves were visited by Tony Rodd in Jan–Feb 1998, all within about 5 km of the Whites Creek site. All areas were on Hawkesbury sandstone and, in the case of those in creek valleys, with catchment heads in Wianamatta Shale. All species of flowering plants, gymnosperms and pteridophytes seen were noted, and scored with a subjective estimate of abundance (abundant, frequent, occasional). In the case of some larger parks and reserves, the area was subdivided into two or more sections for greater precision of recording, mostly on the basis of difference in topographic position. The bushland areas and their subdivisions are enumerated below, indicating the abbreviation used, while the flora lists are combined in a single table, Table 1. Locations of the areas in relation to the Whites Creek site are mapped in Figure 1.

Balls Head, Waverton (BH): only the sheltered slope on the north side of Balls Head, near the Old Quarantine Depot, was surveyed, this being the only part of this reserve at all similar to Whites Creek in topography etc. It is a gentle slope with limited outcropping of sandstone, with moderately tall forest. Unfortunately this eastern side of Balls Head was the subject of a tree-planting scheme by enthusiastic volunteers in the 1930s, and it is not always clear just which trees are original natives. This site has a fairly low density of weeds.

Berry Island, Wollstonecraft (BI): again, only the more sheltered northern end of the bushland here was surveyed. The relief is low, little more than 10 m above sea-level, but a quite rich remnant of bushland survives.

Smoothey Park, Wollstonecraft (SP): a narrow, quite moist valley in sandstone but not far below the shale. The bushland here is very weedy and degraded, and there appears to have been some interplanting of native trees within the last 20 years, but the canopy trees at least are indigenous to the site.

Gore Creek Reserve, Northwood (GC): a quite elongated reserve extending from the shores of a small bay up a narrow sandstone valley, much altered in the lower part by infilling for playing fields and picnic areas. The creek banks and moister slopes are mostly very weedy, but numerous native species persist. Four subdivisions were used for this survey, namely

GC1 - east side of creek from head of bay to top of oval: mostly steep sandstone ledges rising from water, vegetation shows saltwater influence; moderately weedy

GC2 - short side gully on east side, beside entrance road: remnant moist forest but some trees possibly planted; understorey almost pure weeds

GC3 - sandstone cliffs around perimeter of oval, also stream diversion channel along northeast side

GC4 - main valley from head of oval to about 300 m upstream; low sandstone cliff-lines; creek banks very weedy, evidence of attempts at bush regeneration

Clarkes Point Reserve, Woolwich (CP): waterfront parkland with a few low sandstone outcrops, mostly mown grass but with remnant indigenous trees and shrubs among rocks (elsewhere heavily planted with popular native trees and shrubs); very exposed to salt spray.