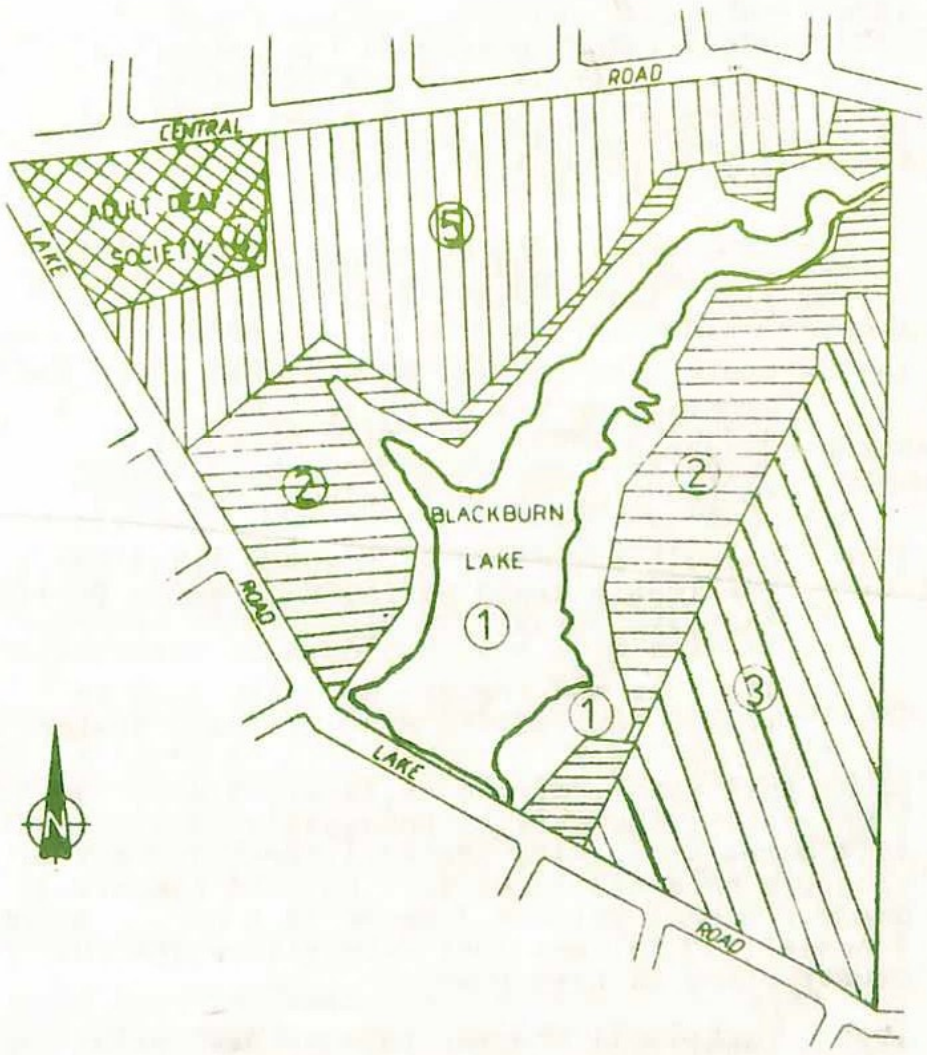
ND 4941

CITY OF NUNAWADING

BLACKBURN LAKE SANCTUARY:

PAST, PRESENT & FUTURE.



CITY OF NUNAWADING

BLACKBURN LAKE SANCTUARY

A BRIEF HISTORY :

(i) Formation:

Towards the end of last century, a tributary of Gardiner's Creek was dammed to form Blackburn Lake. The Freehold Investment and Banking Company, an early land speculative syndicate in Blackburn, is credited with having built it for the purpose of enhancing land values in the district and to provide a reservoir for local orchardists.

(ii) Ownership:

1903 - Blackburn Lake Paddock subdivided.

1909 - Adult Deaf and Dumb Society (now the Adult Deaf Society of Victoria) purchased a 75 acre (30.3 ha) block which included the lake and built a home for deaf people. (Areas 1 + 2 + 3 + 4 + 5)

1964 - Melbourne and Metropolitan Board of Works (MMBW) purchased the lake 15.2 acres (6.15 ha) and the immediate surrounding land 17.9 acres (7.24 ha), a total of 33.1 acres (13.4 ha). (Areas 1 + 2)

- Camberwell Grammar School entered into a contract to purchase 16.3 acres (6.6 ha) (Area 3)

1975 - Adult Deaf Society of Victoria built new premises on 6.3 acres (2.6 ha) (Area 4) and sold their remaining property 14.3 acres (5.8 ha) on the northern slopes to the City of Nunawading (Area 5)

1976 - Council purchased 33.1 acres (13.4 ha) previously owned by the MMBW which included the lake (Areas 1 + 2)

The lake and the creeks which feed it remain part of the MMBW Drainage System.

So by this stage, of the original 75 acre (30.3 ha) subdivision, the City of Nunawading held title for 47.4 acres (19.2 ha), the Adult Deaf Society of Victoria held 6.3 acres (2.6 ha) and Camberwell Grammar School held 16.3 acres (6.6 ha). About 5 acres (2.0 ha) was lost from titles for the construction of Lake Road.

1980 - Camberwell Grammar Land, under threat of subdivision, was acquired by Council, thus increasing the size of the Sanctuary, including the lake, to 25.78 ha (63.7 acres). (Areas 1 + 2 + 3 + 5)

(iii) Usage:

The benefits which people have sought from Blackburn Lake and surrounds have varied in its 100 year history. Prior to the First World War, it was a popular picnic spot and boasted a large tearoom and dance floor on the north bank near Lake Road. There was also a small jetty and four rowing boats available for hire. The refreshment rooms were operated by the Adult Deaf Society until 1915 when they were subsequently demolished because of disrepair.

A little further east, at the start of the inlet then known as "The Arm" there was a flourishing swimming club with a dressing shed, two spring-boards and a high stand. In 1927 the Herald Learn-to-Swim Drive was held there and until 1931 some major carnivals were organised by the Blackburn Swimming Club.

During the 1914-18 war, large gatherings of wounded soldiers were frequently brought to the lake for picnics and on these occasions, practically the whole northern bank would be dotted with groups of soldiers and nurses.

About this time there was fairly good fishing at the lake and an occasional fish up to 1 kg would be caught.

By far the usage with greatest impact was the cultivation of a flower farm by the Adult Deaf Society. Remnants of this project which began in 1916 still appear each spring.

After the second World War, the lake became a popular attraction for schools, scouts and guides, and other community groups for excursions. During the sixties, however, high intensity and often incompatible uses such as speed-boating, water skiing, illegal rubbish dumping, canoeing, yachting, swimming, fishing and barbecueing (open fire) were threatening to turn the area into a shambles.

Today, people are beginning to use the Sanctuary for leisure in such a way as to preserve the environment and thus perpetuate the flow of benefits to the community; however many elements of visitor behaviour are still not entirely consistent with the conservation objectives of the area.

(iv) Management:

Until 1964 the whole of Blackburn Lake area was private property, owned by the Adult Deaf and Dumb Society (now called Adult Deaf Society of Victoria) and managed for a variety of purposes, including the cultivation of a flower farm.

After that date, the MMBW, Camberwell Grammar School and the City of Nunawading also assumed

responsibility for managing various sectors of the 70 acres. A Committee of Management comprised of interested citizens was established at this time by the Council to advise on the development and maintenance of the area.

During the sixties and early seventies the bush environment in the reserve deteriorated progressively due to inadequate management techniques and poorly informed visitors. The old picnic area between the present toilets near Lake Road and the water's edge was completely denuded of undergrowth and much of the bush was stripped for firewood to stoke the open fire barbecues which existed at the time. The sensitive vegetation along the lake fringe which provides a vitally important habitat for wildlife such as waterfowl was destroyed in many parts and a host of other problems developed through insufficient management consideration for visitor behaviour.

In the late 1970's deliberate measures were taken by the Parks and Recreation Department to reduce visitor impact and to encourage the regeneration of areas which had already been damaged.

The network of walking tracks was reduced to a carefully selected system which maximises visitor enjoyment while at the same time seeks to preserve the natural beauty of the environment. Access to the lake's edge was reduced to a few spots and these were stabilised and carefully landscaped to reduce erosion and for greater safety. Several areas were temporarily fenced off, including the old picnic area (now relocated on a harder wearing site) and re-appeared with wildflowers, including greenhood orchids, the following season. An overall management plan was prepared, its major objectives being :

- to preserve the Sanctuary as a bushland and wildlife habitat of high scenic and educational value
- to provide for passive recreation according to the measured carrying capacity of the area.

GEOMORPHOLOGY:

The topography or land-form of Blackburn Lake Sanctuary and the surrounding area has been carved out of silurian mudstones and sandstones. The land surface, 90-105 metres above sea-level, is part of a maturely dissected erosion surface, known as the Nillumbik Terrain. The lower lake occupies part of a deep narrow valley near the head of a tributary of Gardiner's Creek, with Lake Road now crossing the dam-wall.

The silurian rocks consist predominantly of very thick beds of mudstones with minor beds of finer sandstones formed from

sediments deposited in fairly deep sea conditions during late silurian time.

SOILS:

Soil types around Blackburn Lake are related to the geological formations from which they were derived, but are also related to particular rainfall figures relative to evaporation, vegetation, time and man. Briefly, the soil is predominantly acidic, weakly structured brown and grey loams which abruptly overlie heavy clay.

The clay subsoil of these duplex soils retards downward movement of soil water and on the northern side of the lake the surface soil does not drain freely. This can be partly attributed to the past practice of furrowing across slopes and to the absence of trees and shrubs which absorb soil moisture and transpire it to the atmosphere.

VEGETATION:

In Blackburn Lake Sanctuary, four indigenous communities existed in the pre-settlement period and can still be distinguished by examination of the remnant vegetation.

(i) Stringybark Box Open-forest Community:
Makes up most of the existing plant remnant.

Brown Stringybark (Eucalyptus baxteri)
Messmate Stringybark (E. obliqua)
Silver-leaf Stringybark (E. cephalocarpa)
Bundy or Long-Leaf Box (E. goniocalyx)

are the most frequent eucalypts.

(ii) Yellow Box Open-forest Community:
Probably grew on higher ground between Blackburn Lake and Central Road. Trees now growing close to the lake indicate that :-

Yellow Box (Eucalyptus melliodosa)
Brown Stringybark (E. baxteri)
Messmate Stringybark (E. obliqua)
Bundy or Long-Leaf Box (E. goniocalyx)
Common Peppermint (E. radiata)

(iii) Lake Verge Community:
Is a zoned sequence of communities along a narrow fringe around the edge of the lake.

Water-ribbons (Triglochin procera)
Common Reed (Phragmites australis)
Bulrush (Typha sp.)
Swamp Paper-bark (Melaleuca ericifolia)
Prickly Tea-tree (Leptospermum juniperium)
Prickly Moses (Acacia verticillata)

are the dominant species.

(iv) Drainage Depression Communities:
Have changed dramatically since white settlement from :-

Burgan (Leptospermum phylicoides)
Hop Goodenia (Goodenia ovata)
Sweet Busaria (Bursaria spinosa)
Prickly Tea-tree (Leptospermum juniperium)
Australian Dusty Millar (Spyridium parvifolium)

dominated communities, to -

Willow (Salix spp)
Hawthorn (Craetagis sp.)
Blackberry (Rubus fruticosus sp. agg)

There are now approximately 60 introduced species within the forest remnant of the Sanctuary which represents almost 30% of the total species present.

FAUNA:

Small pockets of uncleared vegetation such as Blackburn Lake Sanctuary provide the last refuge for disappearing wildlife within the urban area. The Sanctuary has long been recognized as one of the most important bird refuges within Metropolitan Melbourne,equalled only by possibly the Botanic Gardens. In addition to about 180 species of birds which have been recorded in the area, there have also been sightings of Common Ringtails and Common Brushtails, an echidna, occasional snakes and a number of tortoises. Small fish and yabbies can be caught in the lake and there is a diversity of insects.

Some of the birds commonly seen at the Sanctuary today include:

Little Pied Cormorant, White faced Heron, Black Duck, Brown Goshawk, Coot, Spotted Turtledove, Rainbow Lorikeet, Gang-gang Cockatoo, Crimson Rosella, Eastern Rosella, Black Faced Cuckoo Shrike, Blackbird, Superb Blue Wren, Tawny Frogmouth, Laughing Kookaburra, Welcome Swallow, White-Browed Scrub-Wren, Scarlet Robin, Southern Yellow Robin, Willie Wagtail, Rufous Whistler, Eastern Shrike-tit, Grey-breasted Silvereye, Eastern Spinebill, White-plumed Honeyeater, Bell Miner, Noisy Miner, Red Wattlebird, Red Browed Finch, Indian Myna, Dusky Wood-Swallow, Grey Butcher-bird, White-backed Magpie, Pied Currawong, Australian Raven.

It is thought that some decline in the abundance and diversity of bird species in the area may have occurred in the past due to a variety of reasons, possibly including water pollution and destruction of vegetation. Every effort is now being made through careful management to meet the habitat and food requirements of the bird populations. Recent indications are that their status is currently improving.

POLLUTION:

It is almost impossible to go anywhere within an urban area without encountering some environmental deterioration. Blackburn Lake Sanctuary, although embattled with a host of problems including some manner of pollution, provides a rare opportunity for people to enjoy and begin to appreciate the beauty and sensitivity of the natural environment. It is of utmost importance that teachers of environmental education do not overlook the need to stimulate people's enjoyment, understanding, appreciation and love for nature as the primary objective in seeking a community which cares for our environment.

For enjoyment and appreciation of the natural environment, Blackburn Lake Sanctuary is an ideal example; as a case-study on pollution it is inappropriate.

Up-to-date figures on trophic status, coliform contamination, heavy metal contamination and other measures of pollution are not currently available, although recent indications suggest an improving situation.

THE SANCTUARY TODAY AND THE FUTURE:

Management strategies for the Sanctuary now follow the broad objectives already mentioned; are part of a larger park and recreation system in the City; deal with a wide diversity of tasks; and are constantly under review. Some of the tasks include management for retention of indigenous species and control of introduced species to prevent the proliferation of exotics and garden escapees, enhancement of the recreational experience and the influencing of visitor behaviour. Some of the programs already implemented in the past five years are yet to show results, but work such as the heavy planting on the lower northern slopes is expected to yield dramatic change in the years to come.

Some other features of the management strategy planned for the area include:-

- coping with anticipated increased visitor usage
- control of extensive noxious weed infestation
- control of unwanted vegetation
- replacement of Willows with native species
- enhancing visitor enjoyment and appreciation of the Sanctuary's beauty and sensitivity.

The dynamic characteristics of both the bush environment and of the visiting population means that the problems encountered in managing such an area are continually changing and often difficult to predict. For this reason, the approaches chosen for achieving the mangagement objectives of preservation and recreation are necessarily flexible and adaptable and must constantly be evaluated-

FURTHER READING:

Blackburn Lake Committee of Management (1972)
Blackburn Lake: Report to the Minister for Local Government.
Blackburn

Brandenburg, J.P. (1980)
Bush in the Urban Environment Proc. Sem. Bush in the Urban Environment, 1980.
R.A.I.P.R. and City of Nunawading

Brennan, N. (1972)
A History of Nunawading
Hawthorn Press, Melbourne

Calder, W., Pike, J. (1976)
Blackburn Lake Sanctuary : An Environmental Assessment and Master Plan.
Centre for Environmental Studies, University of Melbourne.

Da Costa, R. (1978)
Blackburn : A Picturesque History
Pioneer Design Studio, Lilydale

Elliott, B.J. (1973)
Blackburn Lake Pollution Survey
Nunawading City Council and Monash University

Field, J.F. (1971)
Blackburn Lake : A unique natural sanctuary and field study centre.
Vic Resources : 24 - 26

Mattiske, J. (1978)
Blackburn Lake - an urban case study.
Aust. Sc. Teachers J. 24 (1) : 47-52

* This information is supplied by the Parks and Recreation Department, City of Nunawading