



WETLANDS CONSERVATION SOCIETY (INC)

c/- 14 Stone Court, Kardinya, WA 6163

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16 July 1995

The System Six Study Team
Department of Environmental Protection
141 St George's Terrace
Perth WA 6000

Dear Sir,

System Six Review

The Wetlands Conservation Society wishes to make a submission to the System Six Review. This submission is in two parts. Firstly some comments on the general principles and secondly some specific nominations.

(1) General Principles

The original System Six Red Book, published in 1983, included 19 general recommendations. Many of these are now irrelevant or outdated. Recommendations 1 - 6 relate to the management of State Forests. These have been overtaken by events. It is now clear that the only effective way to conserve State Forest is to place it in national parks or nature reserves. There is an urgent need to set aside a comprehensive and representative system of forest reserves and this should be part of a new general recommendation.

Recommendations 7 - 12 have also been overtaken by events. Many of the areas recommended for protection as reserves have been destroyed (eg. Casuarina M98, Buckland Hill M55, Port Kennedy M106, etc.) Many others have not been established because of CALM's reluctance to take on new reserves without additional funding. Perhaps these reserves should be vested in other authorities (eg. local government, community groups, LCDCs, etc.) if CALM are unwilling to accept them. The Port Kennedy LCDC has done an outstanding job of managing that reserve, for example, at little cost to the WA Government.

Recommendations 13 and 14 are still relevant and they should be supplemented by a recommendation about how this process will be funded. A regional improvement fund like the MRIF should be established to facilitate the acquisition of land for parks and recreation in regional areas.

Recommendations 15 - 17 need very careful attention. Although the Ministry for Planning has done quite a good job of identifying and resuming land for Regional

Parks, CALM has failed to co-operate and so far we still do not have any legally established Regional Parks. The WCS believes that the Regional Park Concept is extremely important in the System Six Area because of the multiple uses of reserves. The concept of a regional park as an area for conservation, recreation and landscape protection is now well established. We have least confidence in CALM's willingness to manage these Parks and we have proposed that MFP should continue to manage them until all of the policy and management issues have been resolved. We believe that funding should come from local authority rates, land tax and development tax. Ultimately a Regional Parks Authority may be the best body to manage them. Because they are so different to national parks and nature reserves the RPA should be quite different from the NPNCA and have its own budget. It should work closely with CALM, MFP and the local authorities.

Recommendations 18 and 19 are still relevant and have been partially implemented. However recommendation 18 does not specify which agency should fund and coordinate this task. This should be addressed in the update.

The General Recommendations should include an additional set which relate to the funding and implementation of the specific recommendations. We believe that there is a need for an implementation committee which will set priorities and review progress. A major review or progress report should be required every three years. A funding mechanism for implementation and management of the System Six conservation estate should be clearly identified in the general recommendations. The failure to do this was one of the main reasons why the original System Six exercise was so unsuccessful.

(2) Specific Recommendations

I am aware that the DEP has provided a detailed nomination form. However, we wish to nominate so many areas that it is quite impracticable for us to fill in such detailed forms. Most of the areas we wish to nominate are already documented in official Government reports, so the degree of detail requested is unnecessary. However, I would be happy to supply any additional information you require for any of the nominations we have made. Please call me on 337 7113 (h) or 360 2274 (w) or 310 1711 (fax) if you need further information.

Our specific recommendations for new areas to be included in the System Six Report are :

(a) The Spectacles Swamps near Kwinana. These are part of the Beeliar Regional Park and are fully described in the Planning Report for that Park. They are also zoned P & R in the MRS.

(b) Long Swamp on Hope Valley Road, Kwinana. This is also included in the Beeliar Regional Park. It is the last of the wetlands in the western chain of the Cockburn Wetlands. It is privately owned.

(c) Bollard Bulrush Swamp in Wellard. This is also part of the Beeliar Regional Park

(d) Tamworth Hill Swamp in Baldvis. This is part of the proposed Rockingham Lakes Regional park. It is fully documented in the ecological study of the Rockingham lakes carried out by V and C Semeniuk for the Australian Heritage Commission. It is zoned for Parks and Recreation in the MRS and it is affected by a mining claim.

(e) Anstey Swamp, Baldvis. This is also a part of the proposed Rockingham Lakes Regional Park. It is owned by the MFP and is zoned for Parks and Recreation. It is fully documented in the Semeniuk study and by the EPA in its original report on the Secret Harbour project.

(f) Paganoni Swamp, Baldvis. This wetland is an outstanding conservation area. It is owned by the MFP and is zoned for Parks and Recreation. It is fully documented in the Semeniuk study and in the Wildflower Society's nomination of this reserve to the Register of the National Estate.

(g) Lark Hill wetlands. This area lies adjacent to Port Kennedy M106 and contains some important wetlands and parallel dune formations. It is fully described by the Australian Heritage Commission in its listing of the area. The land is owned by the MFP and is zoned for Parks and Recreation. It is intended for inclusion in the Port Kennedy Scientific Park.

(h) Jandakot Botanical Park. This area is fully documented by the MFP in its Planning study for the Jandakot Botanical Park. It includes some areas such as M97, M98, M99 and M100 which are already in the System Six Red Book. However, there are several other important reserves in this area which should be included in the System Six Report. All of this land is reserved for Parks and Recreation and most of it is owned by the State.

(i) Piney Lake, Winthrop. This wetland was not included in System Six. However, it is part of the Beeliar Regional park and supports a diverse range of waterfowl and has some remnant vegetation. The City of Melville recently completed a management plan for this reserve.

(j) Blue Gum Swamp, Mt Pleasant. This wetland is an important wildlife refuge. It is well managed by the City of Melville and is being rehabilitated by a local group. It has a management plan, prepared by the City of Melville. It could be incorporated into M73 as it is very close to Booragoon Lake.

(k) Brixton Street Wetlands, Gosnells. These important wetlands should be added to M69. Their importance is well documented in the EPA assessment of the housing proposals for this area.

(l) Ken Hurst Park, Leeming. This is an important area of wetland and banksia woodland adjacent to M94. It contains declared rare flora as indicated in the Floristic Study of the Swan Coastal Plain. The Murdoch Branch of the Wildflower Society has done a detailed flora survey of the site. Contact Diana Corbyn for details.

(m) Twin Bartram Swamp, Hird Road Swamp, Solomon Road Swamp and Gibbs / Russell Swamp in Jandakot. These small wetlands are the best remaining examples of the Jandakot suite of wetlands. They are reserved in the local open space system and are well documented by V. Semeniuk in the report to Gold Estates on Wetlands East of Thomsons Lake.

(n) Creery Wetlands. These important samphire marshes should be added to C50 (Peel Inlet). Their values are fully documented in the Bamford Report which was attached to the proposal for the Harbour City Canal Estate.

(o) Vasse - Wonnerup Regional park. The whole area of the Broadwater, Deadwater and the Vasse Wonnerup estuaries should become a regional park. This concept should be proposed in the System Six update.

(p) Cockburn Wetlands - Eastern Chain M93. The boundaries of this area should be modified to coincide with the boundaries of the Beeliar Regional Park.

(q) Folly, Maramanup, Duck and Beenyup Pools, Baldivis. These small pools on the Folly Drain are important breeding and feeding areas for wildlife. The Folly Drain is an important wildlife corridor and its conservation value should be recognised in the System Six Report.

(r) West Corio Swamp, Karnup. This is an important breeding area for the straw-necked ibis. It should be protected. The EPA did an assessment of it several years ago when sand mining was proposed.

(s) Serpentine River Valley. The entire length of the Serpentine River and its flood plain should be listed in the System Six Report. It is a major wildlife corridor and a habitat for many species. It should be recommended as a regional park.

(t) Wilbinga and Guilderton. Two large blocks of coastal heathland south of the mouth of the Moore River. The Wilbinga block was proposed as a land swap for M1 which has been approved for subdivision. These blocks are adjacent to C12 and together provide an outstanding opportunity to conserve the best remaining transect of coastal vegetation in the northern part of System Six.

If you require further information about any aspect of this submission, please contact me. I would like some feedback on your decision about these areas.

Yours faithfully,



Philip Jennings
President

SYSTEM 6 BUSHLAND SUBMISSION FORM FOR CONSIDERATION IN THE UPDATE PROGRAMME

If you wish to submit more than one area for consideration in the System 6 update, please use a separate form for each area.

Please fill in each section giving as much information as possible.

LOCATION, OWNERSHIP AND ZONING OF THE AREA

1. Location *LONG SWAMP*

Please give as accurate and detailed a description as possible of the site location
Please include either a hand drawn or copied map showing the area of the area

a) Bordering Roads: *Hops Valley Road*

b) Nearest Corner: *Hops Valley rd + Mc Laren Ave*

c) Lot Number: Street Number:

d) Town/Suburb/Location:

e) Local Council:

f) Site Name (if any):

g) Approximate size of the area (ha):

h) Please locate the area on a map and give us map references if possible:

See attached

i) Map: Streetsmart /UBD/Other:

j) Map no.:

k) Grid Ref:

l) Please give any other information that may help us to find the location:

.....

m) Are you aware of any development proposals that are likely to affect the area?

Intensive agriculture

NOTE: Areas that have already been given development APPROVAL should not be nominated

Please fill out those questions that you can answer

2. Who owns the area? (If owned by the person/s making the nomination please indicate)
..... 2 owners

3. If you own the area, and may be interested in participating in conservation on private land initiatives please indicate (and leave your name and address at the end of this submission form)

4. What is the area zoned? (please indicate whether zoning is Town Planning Scheme or Metropolitan Region Scheme) Rural

CAN YOU TELL US A LITTLE ABOUT THE PHYSICAL CHARACTERISTICS OF THE AREA

5. Why do you consider this area important? (Refer to Guiding Issues paper)
..... Important local wetland and EPP Lake

6. What is/are the soil type/s and colours ?
Type: Sand/Clay/Gravel/Loam/Silt
Colour: White/Grey/Brown/Orange/Yellow/Red/Black

7. Does the area have any special features such as unusual landforms / landscapes that still retain their natural vegetation? Yes/No
If yes, what are they?

8. Is the area a wetland or does it include a wetland?

If yes, what kind of a wetlands is it?

- a) lake
- b) river
- c) stream
- d) swamp
- e) estuary
- f) seasonally wet
- g) other

9. What percentage of the wetland is open water in summer?

CAN YOU TELL US A LITTLE ABOUT THE VEGETATION /FAUNA ON THE NOMINATED AREA.

10. What percentage of the area is indigenous vegetation?

11. If the area includes regions cleared of native bushland please indicate reasons for the inclusion.

12. Has any previous flora or fauna survey work been done on the area?

If yes, please give details of the work

13. How would you rate the condition of the native bushland? (see attached table)

- a) pristine
- b) excellent
- c) very good
- d) good
- e) degraded
- f) completely degraded
- g) don't know

14. Please indicate the disturbances affecting the area and where appropriate the percentage of the area disturbed.

- a) Partial clearing
- b) fragmentation
- c) Selective removal of species: timber cutting, wildflower picking, mowing dieback and other plant diseases
- d) Fire regime, including intensity, season and frequency
- e) 'Enrichment plantings' that is plantings of species not found in that community
- f) Weed invasion
- g) Animal impact: horses, foxes, rabbits, cats, dogs, camels, goats etc
- h) Soil movement, both removal and dumping
- i) Changes in water regimes; flooding, drainage and watering
- j) Salinity
- k) Fertiliser drift and along waterways nutrient influx
- l) Mining, including that for road works

- m) Grazing: stock, overgrazing by feral or native mammals
- n) Proliferation of tracks, fire breaks and walk trails
- o) Off-road vehicle use
- p) Use as service corridors by the SEC, Main Roads, Water Authority.

(Source: B Keighery. Bushland Plant Survey, September 1994)

15. Does the area contain any plant species of special interest that you know of?
(eg. declared rare flora, priority taxa, outlier populations)

Do you know what they are?

16. Do you know of any native animals that use the area?

Can you list those you know of? (birds, mammals, reptiles, amphibians etc)

17. Is the area used by any native animals of special interest? (eg. endangered species, large/important populations).....

If yes, please name them and indicate source of information

CAN YOU TELL US A LITTLE ABOUT THE SURROUNDING AREA

18. Are there any bushland areas (including wetlands) near to this area?
.....

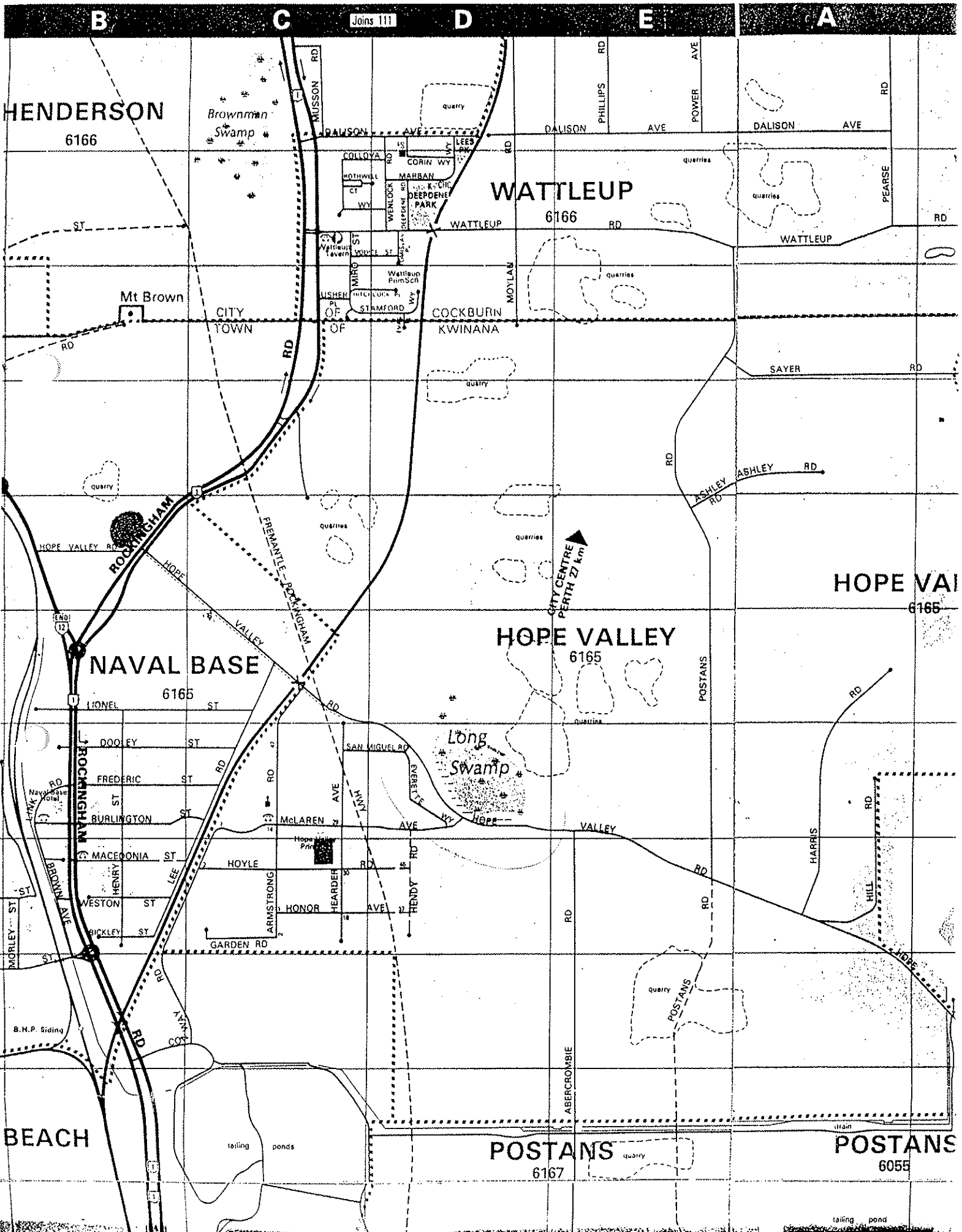
If yes, how close are they ?

Are they already conservation reserves?

What is their approximate size?

19. Does the submitted area link other bushland areas?

Please attach any additional information about the area which may be of use when assessing it.



B

C

Joins 111

D

E

A

HENDERSON
6166

Brownman
Swamp

WATTLEUP
6166

DALISON AVE
quarries

Mt Brown

CITY TOWN

COCKBURN
KWINANA

HOPE VALLEY
6165

NAVAL BASE
6165

HOPE VALLEY
6165

Long
Swamp

BEACH

POSTANS
6167

POSTANS
6055

CITY CENTRE
PERTH 27 km

tailing pond

10.6.6 LAND USE - Refer to Figure 10.8

10.6.7 VEGETATION (Figure 10.8)

The lake is surrounded by a fringe of saltwater paperbark and rushes. There is an extensive area of Gahnia trifida on the eastern and southern sides of the lake, outside the paperbark fringe. Ruppia was noted in the lake in early summer 1985.

10.6.8 FAUNA

Newman (1976) reported that this lake had a greater abundance and species diversity in bird fauna than other wetlands in the series. There appears to be no information about other elements of the fauna of the lake.

10.6.9 MANAGEMENT ISSUES

The following issues are relevant to management of the lake:

- . prevention of off-road vehicle use of the lake bed;
- . prevention of rubbish dumping;
- . protection and enhancement of the fringing vegetation; and
- . management of drainage inputs to the lake, particularly road runoff.

10.6.10 REFERENCES

Fox, J E D and Dunlop, J N (1985), Tuart study: preliminary investigations. Mulga Research Centre, School of Biology. Western Australian Institute of Technology (now Curtin University), Bentley, Western Australia.

Meney, K A (1986), Further investigations at Mt Brown-Wattleup 1986. Mulga Research Centre, School of Biology. Western Australian Institute of Technology, Bentley, Western Australia.

Newman, P (editor)(1976), The Cockburn wetlands study. Prepared by students of Murdoch University for the Town of Cockburn.

10.7

LONG SWAMP

Subm 65.

NOT PICKED UP

10.7.1 GENERAL INFORMATION

LOCAL AUTHORITY: Town of Kwinana
 MRS ZONE: Rural
 RESERVE: N/A Freehold
 MANAGEMENT: Landowner/s
 SYSTEM 6 RECOMMENDATION: N/A
 WAC CLASSIFICATION: Le.f/b.s.se.sc.

10.7.2 PHYSIOGRAPHY AND GEOLOGICAL SETTING

10.7.3 AREAS

Total wetland	18.1 ha
Paperbarks	11.9 ha
Sedgeland	0.9 ha

AREAS (Cont'd)

Samphire	0.5 ha
Open water	1.8 ha
Modified	2.0 ha

10.7.4 HYDROLOGY (Figure 10.12)

The vegetation of the wetland includes samphire, suggesting that it receives some saline groundwater.

The water level record shows that the maximum winter level on record was 1.43 m AHD in 1977 while the lowest summer minimum level was 0.1 m in 1983.

Since 1978 winter maxima have been in the range 0.8-0.9 m AHD and summer minima within the range 0.1-0.5 m AHD.

10.7.5 WATER QUALITY - No information available.

10.7.6 LAND USE

Long Swamp is some 2 km south of Lake Mount Brown, in a rural area in which there has been considerable quarrying for limestone. An excavation on the eastern side of the wetland has been used to deposit fly-ash. The swamp is intersected by fence lines (Figure 10.11).

10.7.7 VEGETATION (Figure 10.11)

The swamp is surrounded by a dense fringe of swamp paperbark on the south and east and by a mixed stand of swamp paperbark and Melaleuca teretifolia on the northern side. There is a central open area which is inundated in the winter and spring. At the margins of the open area samphire occurs, associated with swamp paperbark. A small area of Baumea articulata is situated in the deepest, most permanently wet, part of the swamp.

10.7.8 FAUNA

There appears to be no information about the fauna of the swamp.

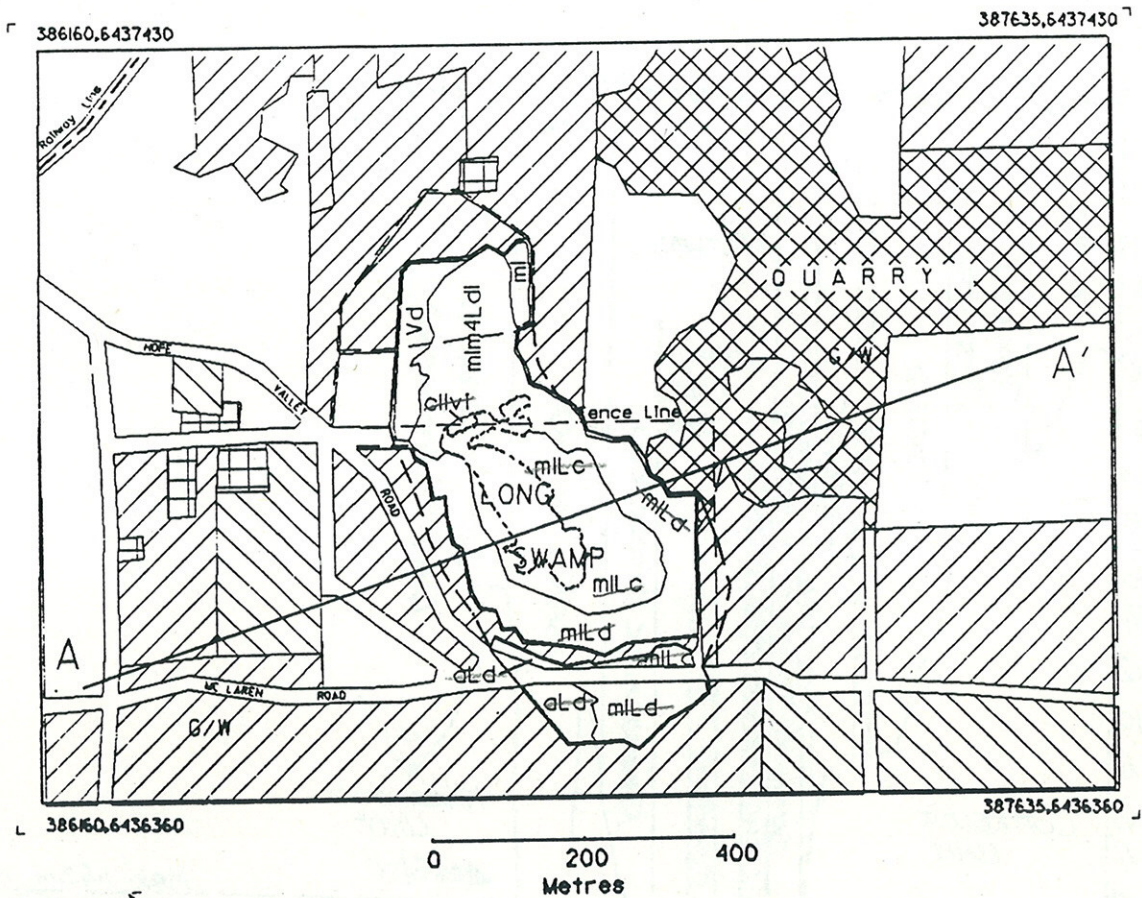
10.7.9 MANAGEMENT ISSUES

As the swamp is in private ownership, the task of management resides with the landowner. The swamp warrants conservation because of its relatively intact vegetation. Preservation of the wetland vegetation and prevention of access to stock and itinerant rubbish dumpers would go a long way to maintaining the wetland in a healthy state.

10.7.10 REFERENCE

Gozzard, J R (1983). Fremantle Part Sheets 2033I and 2033IV Perth Metropolitan Region, Environmental Geology Series, Geological Survey of Western Australia.

NOT PICKED UP



met. raph. Low closed forest + Low open forest
Acacia Low closed forest
Saevia articulata Open Sedgeland
met raph., *met. teret.*, Low closed forest.

Figure 10.11 Long Swamp: wetland plant communities and surrounding land use.

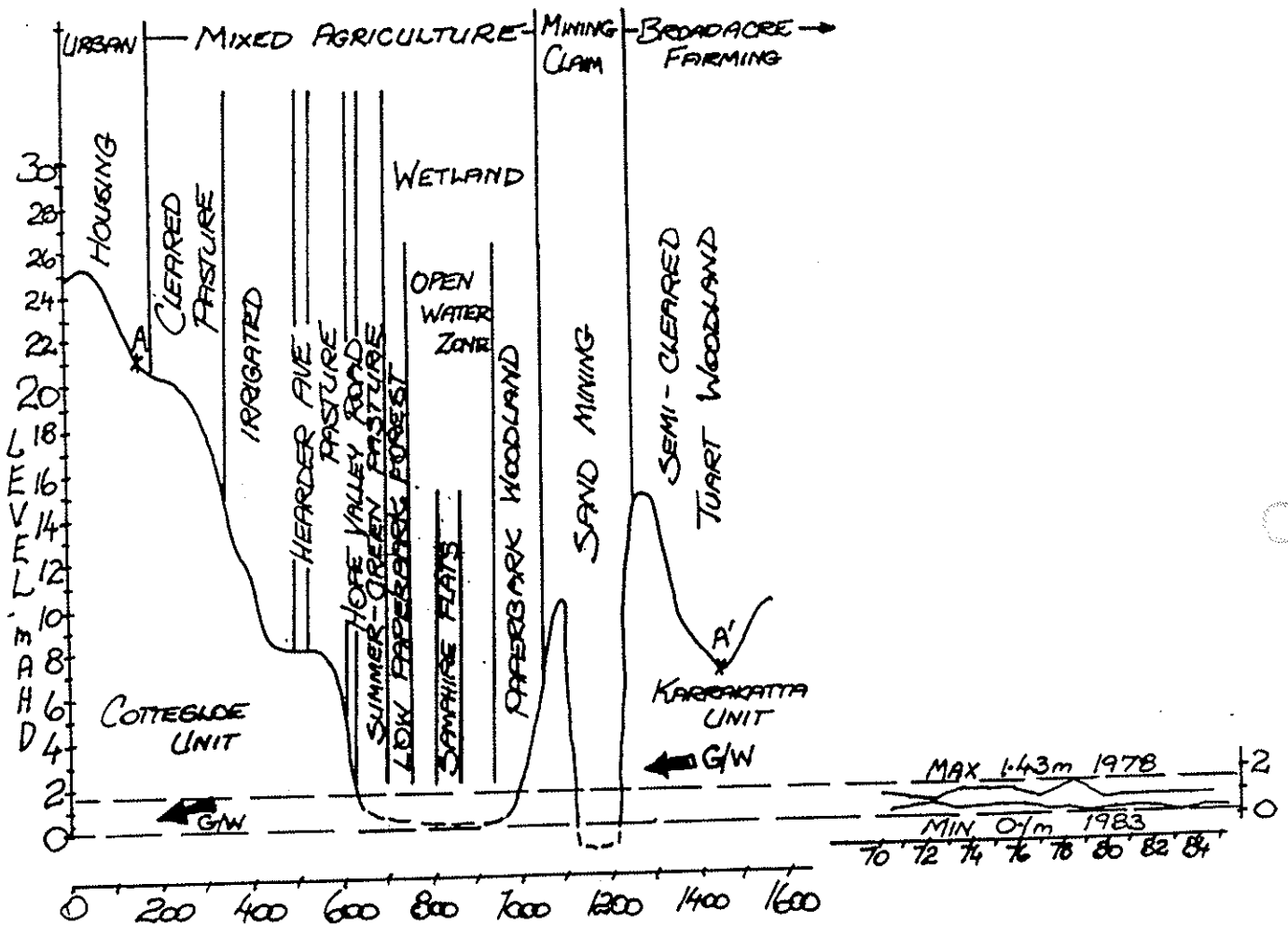


Figure 10.12 Long Swamp: diagrammatic cross-section and water level record.