AIREYS INLET AND DISTRICT ASSOCIATION

ENVIRONMENT STUDIES ASSOCIATION OF VICTORIA

REPORT ON THE STUDY OF THE RIVER ENVIRONMENT AIREYS INLET

SATURDAY 8TH AND SUNDAY 9TH NOVEMBER 1975

The study was designed to supplement basic resource information already held relating to the river and its environs, and to- provide an opportunity for discussion of policies appropriate for the conservation of this important part of the Aireys Inlet environment.

Eighteen people worked in three groups under the expert guidance of Helen Lee from the Melbourne University Botany School, and Malcolm Jack from the Town and Country Planning Board.

The land survey group, comprising Ian Noble, Syd Heron, Norm McPhee, Ken Hayes, Ron Burton and Brian Williams, roughly delineated the very considerable area of interesting public land adjacent to the river along the flats.

The botanical survey group comprising Helen Lee, Pauline Noble, Beryl Heron, Joan Forster, Nicolette Hooper and Maureen Davidson prepared a list of plant species found in the area and listed the native trees and shrubs which could satisfactorily revegetate, the river environs. A bird list, with the associated habitats which should be considered in the management of the area, was also prepared.

The land use and town planning group comprising Malcolm Jack, Jean Crams, Vivien Stringer, Mrs Heller, Sue Solomon and Barbara McKenzie investigated matters which should be taken into account to maintain the peaceful atmosphere and natural beauty of the area.

The detailed reports are hereunder:-

LAND SURVEY GROUP

The group roughly surveyed the river reserve land between Boundary Road and Beach Road as shown on the map herewith.

There was some uncertainty as to whether or not some areas were public land and the group considered that the Association should check out the ownership of this land.>

The river reserve land was both extensive and interesting and well worth incorporating in plans for conservation of, the river environment.

BOTANICAL SURVEY GROUP

The area investigated was the public land along the river flats between the bridge crossing the river at the junction of Boundary Road and Bimbadeen Drive and the Ocean Road Bridge. Several vegetation types can be recognised although all are somewhat modified following disturbance and .invasion- by .introduced species.

These zones are;-

1. Remnant of forest at the northern end of the area

2. Native grassland.

3. Reed swamp and mud flats.

4. Altered forest and native grassland.

Description of the Zones

(1) Forest

Several hectares of forest remain and in this the tree, shrub and ground cover layers can be recognised. The chief tree species are eucalypts, including ironbark, manna gum and swamp gum, with an understorey of mixed shrubs. In the ground cover are herbs, grasses and sedges including many introduced species.

(2) Native Grassland

The original limits of the native grassland are difficult to define due to extensive clearing and grazing of the river flats. On the west bank of the river the northern boundary was probably as it appears now, in the vicinity of the bend in the river below the original Wybellena house. On the east bank the boundary could have been further upstream. This area was almost certainly treeless, but has probably always had scattered shrubs through it. The dominant feature is a species of Poa which forms large tussocks up to 1m high. The wattle prickly moses, coast beard heath, sweet bursaria and boobialla are among shrubs which are common now on the native grassland, particularly on the edge of the river.

(3) Reed Swamp and Mud Flats

The native grassland merges into reed swamp, presumably where the water table is higher and the soil more saline. This area is very flat and subject to periodic inundation. The most abundant species is the sea rush, tussocks of which grow to about lm high. The mudflats are mostly free of tussocks but the higher parts are colonised by beaded glasswort, creeping monkey flower, water buttons and other herbs. Many of these herbs extend back into the reeds adding to the ground cover there.

When the river is open to the sea it is tidal, the water banking up at high tide and being released at low tide. The tidal influence extends upstream beyond the big bend opposite the cattle-yards on the Bambra Road and as a result the mud flats and many of the plants found on the flats near the bridge also extend to this point. The mud flats form a narrow border to the river channel at low tide and are covered at high tide.

(4) Altered Forest and Native Grassland

It is probable that on the west bank the forest extended southwards down the river valley to a point approximately level

with the "Wybellena" house. Many fine ironbarks still remain on the bank to this point. The east bank has been more extensively cleared and grazed and the extent of the original forest is hard to determine. Some very old manna gums remain in the vicinity of the cattle pens on the Bambra Road and many younger trees of the same species remain opposite on the west bank. Occasional specimens of the typical forest shrubs occur, along the banks immediately adjacent to the river. The ground cover has been greatly altered due to the introduction of pasture grasses and various weeds.

Species Lists

The species list (appendix I) is not complete as collection of all species is not possible in one or two days. Some identification could not be taken beyond the generic level, partly due to insufficient flowering material being available, but also to technical difficulties encountered eg many rushes and grasses hybridise and require an expert to sort them out.

Since the trees and shrubs may be of more general interest, and are likely to form the basis of any replanting which may be done, these are listed separately. The number or numbers appearing after the common names indicates the zones in which they were collected eg Eucalyptus sideroxylon, red ironbark, 1, 4 indicates that this species occurs in the forest zone 1 and in the altered forest and grassland zone 4. An asterisk appearing before the name eg Pinus radiata denotes a species; introduced, to Victoria.

LAND USE AND TOWN PLANNING SURVEY GROUP

Overall goal for Aireys Inlet

TO retain as far as possible the peaceful and tranquil atmosphere and the natural beauty of the town

To do this necessitates restricting the influences of man

(1) Growth of Geelong

It is estimated that the population of Geelong will grow to approximately quarter of a million by year 2000. This will in turn create problems for the nearby coastal towns, including Aireys Inlet, as they will become dormitory suburbs and recreation areas for this Geelong population.

(2) Water reticulation

The decision to provide water reticulation seems to be the kernel of the problem of man’s influence. The resultant pollution into the river (already apparent from houses in Wybellena Drive) and increased population will inevitably change the peaceful nature of the town, the beauty and the ecology of the river and surroundings.

(3) Subdivision and urban facilities

Present areas provided for subdivision should be gradually utilised without further encroachment into bush areas (compare Lome restrictions). Urban facilities are not essential in a coastal town - the aim is to prevent the imposition of a suburban environment. If possible, the minimum lot size should be restricted - to a higher minimum of approximately 8,500 square feet. Sub-divisions such as Wybellena should not be allowed in future.

(4) Pollution drainage and tidiness

An active policy should be followed to prevent further desecration e.g. expert knowledge can be sought from such authorities as C.F.A, E.P.A., State Rivers and S.C.A. augment arguments that conventional subdivisions should be amended according to the slope and features of the land. Drainage need not be of conventional kerb and channel type (compare Lorne}, but sympathetic to the environment. Regular pollution readings should be taken of the river, especially during the summer. Tidiness should be promoted.

(5) Road access and road design

Steep slopes need to be sealed to prevent erosion and, skidding as in Philip Street and Aireys Street. The Council should be asked to retain the rural appearance of the roads by sealing the minimum width for safety with the maximum retention of trees and vegetation. Access roads, not thoroughfares, should be considered in some places eg Philip Street and Eagle Rock Parade. The town is disadvantaged by being bisected by the Great Ocean Road.

(6) Recreation uses

Township is situated between the two recreational features of the sea and the bush. Its attraction stems from existing pastimes eg surfing, boating, bushwalking, birdwatching, rather than from commercially introduced amenities.

(7) Housing – siting and appearance

Encourage housing that blends with the surroundings eg that is not silhouetted against the skyline, is well planned and well maintained, and is not garish in colour and material. As much as possible prevent a scarred landscape appearance by both houses and roads. Encourage preservation of historic features eg bark hut and Angahook, lighthouse and the Pearce grave.

(8) Clearing native vegetation (and planting)

There should be minimum clearing of trees. If you destroy a tree, plant another. List of trees and plants could be forwarded with rate notice (possible task for botanical section of A.T.D.A.). Encourage hand pulling of boneseed and protection of

existing bird and wild life sanctuaries. Regulations with penalties should be enforced for destruction of natural trees on public land.

(9) Foreshore amenities – toilets, kiosk, etc

Minimal facilities only should be provided. Toilet should be discretely placed and preferably not on cliffs. Kiosk not essential.

(10) Commercial facilities

Adequate for present needs as major shopping carried out in Geelong. Expansion of town's commercial facilities would bring pressure for "progress" that is inconsistent with the major attraction of the town.

(a) Parking - additional angle parking adjacent to the Post Office could be provided.

(b) Traffic safety at Valley shopping centre. Too many entrances and exits for a position on the inside of curve.

(11) Offroad vehicles

Trail bikes, dune buggies, four wheel drive vehicles, etc, should be banned from all beach, sand dune and estuary areas to prevent erosion, noise pollution and the destruction of the bush.

(12) Parking

Should be provided in relatively unobtrusive locations and controlled in size and access. Car parks should be well designed using low log pine barriers and each area should be for a small number of cars. Parking should be prohibited on .the ocean side of the highway unless essential for reasons of safety.

(13) Industry and Farming

Farming has been the only industry in the estuary area and should continue as it does not interfere with the overall goal for Aireys Inlet.

(14) Erosion

Selected east-west roads running uphill should be sealed to prevent gully type erosion. Dune and vegetative erosion exists eg Inlet Road and Fairhaven. No development should be allowed on steep unstable slopes. Vegetation can often alleviate or prevent erosion.

(15) Council

The Council should continue to receive encouragement for carrying

out its works in a way which is sympathetic to the environment. It should also be made clear to the Council that caravan parks and extensive commercial developments are not favoured.

APPENDIX I

TREES AND SHRUBS

Eucalyptus sideroxylon	Red ironbark	1, 4
E. ovata	Swamp gum	1
E. obliqua	Messmate	1
E. viminalis	Manna gum	1, 4
E. cypellocarpa	Mountain Grey Gum	1
Acacia Melanoxylon	Blackwood	1, 4
A. verticillata	Prickly moses	1, 4
A. verniciflua	Varnish wattle	1, 4
Leptospermum juniperinum	Prickly Tea-tree	1, 4
L. lanigerum	Woolly tea-tree	4
Pomaderris opetala	Hazel	1
Olearia lirata	Snowy Daisy bush	1
Helichrysum dendiodeum	Tree Everlasting	1, 4
Prostanthera lasianthos	Victorian Christmas bush	1
Myoporum insulare	Boobialla	1, 2, 4
??	Wild Cherry	1
Bursaria spinosa	Sweet bursaria	1, 2, 4
Gynatrix pulchella	Hemp bush	1, 4
Goodenia ovata	Hop bush	1, 4
Pittospermum undulatum	Sweet Pittospermum	4
*Rosa rubiginosa	Sweet briar	1
*Lycium ferocissimum	Boxthorn	4
Leucopogon parviflorus	Coast beard heath	2, 4
Viminaria juncea	Golden Spray	2
*Pinus radiata	Radiata pine	2
*Chrysanthemoides monilifera	Boneseed	4
Banksia marginata	Silver banksia	2
Amyema pendulum	Drooping mistletoe	1
Pteriduim esculentum	Bracken	1, 4
*Cratoegus monogyna	Hawthorn	2
*Albizia lophantha	Cape wattle	2

RUSHES, SEDGES, GRASSES

Juncus maritimus	Sea rush	3, 4
Isolepus nodosa	Knobby club rush	4
Eleocharis acuta	Common spike rush	3
Gahnia radula	Thatch saw-sedge	1, 3, 4
G. filum	Chaffy saw-sedge	4
Triglochin procera	Water ribbons	3
T. striata	Streaked arrow grass	3
Juncus sp		3
*Ehrharta longiflora	Annual veldt gras	2, 4
Tetra??hera juncea	Wire grass	1
*Briga maxima	Shell grass	1, 2, 4
*B. minor	Shivery grass	1, 2, 4
*Dactylis glomerate	Cocksfoot	4
Distichlis distichophylla	Australian salt grass	3
Poa spp		1,2,3,4
*Lolium perenne	Perennial rye-grass	4
*Vulpia bromoides	Squirrel tail fescue	4
*Bromus unuloides	Prance grass	4
*Hordeum hystrix	Mediterranean barley grass	4
*H. leporinum	Barley grass	4
*Holcus lanatus	Yorkshire fog	1, 4
Phragmitis australis	Common weed	2, 3, 4
*Pennisetum clandestinum	Kikuya	4
*Paspalum diatatum	Paspalum	4
Stipa semiberbata	Fibrous spear grass	1, 3, 4
Themeda australis	Kangaroo grass	1, 3, 4

HERBS ETC

Lomandra longiflora	Spiny headed matrush	2, 4
L. filiformis	Wattle matrush	2, 4
Dianella revolute	Flax-lily	2, 4
Auguillaria ??	Early nancy	2, 4
Burchardia umbellate	Milkmaids	2, 4
Sisyrinchium crudifolium	Striped rush leaf	4
Caladenia sp	Spider orchid	4
Prasophyllum sp	Leek orchid	4
Thelymitra sp	Sun orchid	
*Rumea crispus	Curled dock	4
R. brownii	Slender dock	
*R. acetosella	Sheep sorrel	
*Polygonum aviculare	Prostrate knotweed	4
Muehlenbeckia adpressa	Climbing lignum	
Rhagodia baccata	Seaberry saltbush	
Chenopodium murale	Sowband	4
C. sp		3
Saliconia queriquiflora	Bearded glasswort	3
Tetragonia impexicema	Bower spinach	4
Stellacia pungens	Prickly starwort	1, 2, 3
*S. media	Chickweed	4
Clematis aristata	Australian clematis	1
*Ranunculus muricatus	Sharp buttercup	4
Cassytha melantha	?? dodder-laurel	1
*Rahanus raphanistrum	Wild radish	4
*Cerastium glomeratum	Mouse-ear chickweed	4
Droseca planchona	Climbing sundew	2
D. avriculeta	Tall sundew	2
Crassula sieberana	Sieber crassula	2, 4
Rubus parvifolius	Native raspberry	1
*R. procera	Blackberry	1, 4
Acaena anserinaifoia	Bidgee-widgee	1, 2, 4
A. ovina	Sheeps burr	1, 2, 4
Bossiaca prostrata	Creeping bossiaca	2
*Melilotus indica	Sweet melilot	4
*Triolium spp	Clovers	4
*Vicia angustifolia	Narrow-leave vetch	4
Kennedia prostrata	Running postman	1, 4
Lotus corniculatus	Birdsfoot trefoil	3
Pelargonium australe	Austral storkbill	1, 4
Geraniium solanderi	Austral crane’s bill	4
Oxalis corniculata	Yellow wood-sorrel	4
Comesperma volubile	Love creeper	1
Hypericum gramineum	Small St Johns wort	2, 4
Viola hederacea	Ivy-leaf violet	2, 4
Pimella humilis	Common rice flower	1, 2
Haloragis tetragyna	Common soapwort	4
Foeniculum vulgare	Fennel	4
Astroloma humifusium	Cranberry heath	4
*Anagallis arvensis	Pimpernel	4
*A. arvernsis var caerulea	Blue pimpernel	4
Saniolus repens	Creeping brookweed	3
*Cicendia filiformis	Slender cicendia	4

*Centaurium pulchellum	Centaury	4
Veronica gracilis	Slender speedwell	4
Asperula conferta	Common woodruff	4
Wahlenbergia sp	Bluebell	4
*Plantago lanceolata	Ribwort	1, 4
P. varia	Variable plantaria	1, 4
P. debilis	Shade plantaria	1, 4
Lobelia alata	Angled lovelia	3
Goodenia geniculata	Bent goodenia	1
Brunonia australis	Blue pincushion	4
Graphalium sp	Cudweed	4
Cotula coronopifoia	Water buttons	3
C. reptans	Creeping Cotula	3, 4
Senecio sp	Groundsel	4
*Sonchus aleraceus	Sow thistle	4
*s. asper	Rough sow thistle	4

APPENDIX II

Aireys Inlet and District Association

Environmental study of River

If this area is to be of ecological Value the following bird list and the associated habits should be taken into consideration - timber should be retained to provide nesting sites and food.

I. Birds which nest in hollow limbs and trunks -

Black duck,
Tree creeper,
Cockatoos-yellow tailed, black, white, sulphur crested,
Galah,
Parrots- crimson rosellas, king, blue winged
Lorikeet -musk, little, purple crowned, swift parrot,
Grey thrush,
Tree martin,
Pardalote,
Kookaburra,
Sacred kingfisher*

II. Birds which need Tall Timber for Food - or nesting -

Honeyeaters - white naped, brown headed, yellow winged, crescent, yellow faced, white eared, silver eye, eastern spine-bill, white plumed, red wattle bird, little wattle bird
Fly catchers - Jacky winter, Satin flycatcher,
Cuckoo - Pallid, fantail, horsefield, golden, bronze
Currawong - grey, pied
Heron - white necked, white faced
Whistler - golden, rufous, olive,
Raven - tasmanicus,
Grey thrush,
Mud lark,
Magpie,
Dusky wood swallow,
White throated warbler,
Scarlet robin,
Thornbill - little, striated, buff tailed,
Olive backed oriel,
Black faced cuckoo shrike,
Spotted pardalote,
Sitella, Wee bill,
Predators- Australian Goshawk, Grey Goshawk, nankeen kestrel, sparrow hawk, black shouldered kite, Peregrine falcon, whistling eagle, wedge tailed eagle, brown hawk, little falcon,

III. Birds which are -ground feeders and need bushes and shrubs for shelter, nesting and food -

Wrens - scrub, blue, chestnut tailed, ground,
Thornbills - brown,
Fan tail -rufous, grey,
Yellow robin, Pink robin,
Willie wag tail,
Olive whistler

Red Browed Finch
Grey thrush, Mountain thrush
Painted quail,
Quail thrush
Bristlebird
Bower bird - satin
Honey eaters - yellow winged, crescent, spinebill

IV. Open Pasture Feeders - Seeds or Insects

Galah,
Sulphur crested cockatoo
Blue winged parrot,
Spur winged plover,
Magpie,
Mudlark,
Willie wag tail,
Mountain duck,
Cattle egret,
Jackie winter,
Whit winged triller
Spotted pardalote,
Red browed finch,
Welcome swallow,
Tree martin,
Swift spine tail,
Flame robin,
Pipit,
Bushlark,
Yellow tailed thornbill.

V. Birds inhabiting Swamps and Water

River - Azure King fisher,
Duck - Black, wood, mountain, grey teal,
Black swan,
Cormorant - Little pied, little black, large black,
Grebe - little, hoary headed,
Coot,
Dusky moor hen,
Swamp hen,
Crake - Spotted, marsh,
Brown bittern,
Heron - white faced, white necked,
Egret -white, cattle-,
Ibis — strawnecked, white, glossy,
Yellow spoon bill,
Nankeen night heron,
Golden headed fantail warbler,
Little grass bird.