

Dumbalk, Meeniyan, Seaspray, Mallacoota, Phillip Island

Water Supply Catchments

Tarwin River (Meeniyan)
Merrimans Creek (Seaspray)
Mallacoota Borefield (Mallacoota)
Candowie Reservoir North Arm

A Proposal for Proclamation

Statement prepared for consideration by the
Land Conservation Council

February 1990

Land Protection Division
Department of Conservation, Forests and Lands

TARWIN RIVER (MEENIYAN) WATER SUPPLY CATCHMENT

The Tarwin River and its tributaries drain a catchment of 1077 km² in South Gippsland extending upstream from an offtake below the junction of the Tarwin River East Branch and the Tarwin River West Branch. The Tarwin River system which flows to Bass Strait is administratively situated within the South Gippsland Basin.

The catchment area also includes the already proclaimed catchment of the Ness and Ruby Creeks as proclaimed in "Victoria Government Gazette, No. G45, 18 November, 1987".

The Catchment

The catchment geology is dominated by extensively folded and faulted sedimentary beds (Cretaceous). These are interspersed with older volcanic cappings. The topography of this region is typically, deeply and extensively incised gullies with steep slopes, tending steeper in the north and east. Hillsides in the catchment which have been cleared for agriculture are heavily terraced and prone to landslips. The soils of the Cretaceous sediments are brown gradational type while the volcanic soils tend to be red gradational types. The catchment has been extensively cleared for agriculture leaving little native vegetation which was dominated by mountain ash forests with a luxuriant understorey.

Elevation/Rainfall

Leongatha	88m	970 mm
Mirboo North	244m	1027mm
Korumburra	229m	1236mm

Land Tenure and Use

The catchment is predominantly freehold land with only 5% being public land. The main uses of freehold land are mixed grazing, dryland dairying, rural/residential, Light industry, plantation forestry, and cropping (potatoes). The catchment has a population of approximately 10,000 of which the majority reside in the town of Korumburra, Leongatha and the smaller localities of Mirboo North and Dumbalk.

The Land Conservation Council (LCC) recommendations for the use of public land in the area are contained in "Final Recommendations South Gippsland Study Area (District 2)" LCC, 1982, and "Final Recommendations Melbourne Study Area", LCC, 1977. Recommendations appear in brackets.

Water Supply System

Meeniyana (population 600) draws domestic supply from an offtake on the Tarwin River (D5), located on river reserve adjacent to CA 21, section 9, Township of Meeniyana. This water is pipelined to a service basin (7ML) prior to distribution. Dumbalk (Population 200) draws domestic supply from an offtake on the Tarwin River East Branch (D6), located on river reserve adjacent to CA 91B Section A Parish of Dumbalk. Water quality from these systems is of reasonable standard, although the water does exhibit seasonal colouring and turbidity. All domestic supplies are chlorinated.

The Tarwin Valley Water Board is the responsible water supply authority for both supplies.

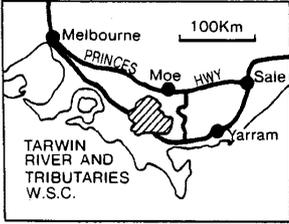
Administrative Areas

Parishes: Nerrena, Dumbalk, Leongatha, Mardan, Mirboo South, Mirboo, Allambee, Allambee East, Narracan South, Moe, Koorooman, Warragul, Korumburra, Kongwak, Gunyah Guynah, Drumdemara.

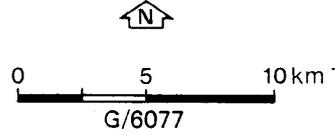
Municipalities: Shires of South Gippsland, Korumburra, Morwell, Woorayl, Mirboo, Narracan, Warragul

PLAN No. S-1504
TARWIN RIVER (MEENIYAN)
WATER SUPPLY CATCHMENT

LOCALITY PLAN



-  Not included in Tarwin River (Meeniyen) Proclamation
-  Catchment boundary
-  Parish boundary
- MOE** Parish name



MERRIMANS CREEK (SEASPRAY) WATER SUPPLY CATCHMENT

The catchment to Merrimans Creek, containing 544 km² is located in the eastern South Gippsland and provides supply for the township of Seaspray. The offtake is located on a stream side reserve managed by the Rosedale Water Board, adjacent to CA 7B Parish of Giffard.

The Catchment

The catchment extends west from the offtake through three topographic zones, the eastern-most is of Quaternary sediments the topography of which are hills and swales and plains. The central zone is dominated by the Tertiary sediments which have a moderate hill relief. The third zone, forming the headwaters for Merrimans Creek, consist of Cretaceous sediments interspersed with older basalt cappings taking the form of deeply dissected hills.

Rainfall/Elevation

Seaspray	6m	585mm
Gormandale East	175m	850mm
Balook	585m	1455mm

The soils of the catchment include leached sands which may or may not have a cemented layer, isolated pockets of duplex soils interspersed with the sands, brown gradational (sedimentary) and red gradational (volcanic) soils.

The native vegetation of the area includes associations of shining peppermint, saw banksia and yertchuk on the sandy soils with isolated pockets of manna gum and narrow leaf peppermint occurring on the duplex soils. On the red and brown gradational soils the native vegetation which remains forms a wet mountain forest of mountain ash with a dense tall understorey.

Land Tenure and Use

The catchment contains both private (79%) and public land (21%). The major uses of private land in the catchment include, mixed grazing, dryland dairying and plantation forestry. There are also instances of private extractive sites.

Public land in the catchment is used for hardwood and softwood production. The Land Conservation Council (LCC) recommendations for land in the catchment can be found in "Final Recommendations, South Gippsland Study Area (District 1) and South Gippsland Study Area (District 2), including the Stradbroke Special Investigation Area".

Water Supply System

A pumping station on Merrimans Creek deliver water, via a pipeline, to a storage (3.4ML) for distribution to Seaspray (population 700). During summer, tourists may account for an additional 5000 people using urban supply. This supply is chlorinated but has seasonal turbidity and colour problems. A bore is also used in emergencies.

The Rosedale Water Board is the responsible water supply authority.

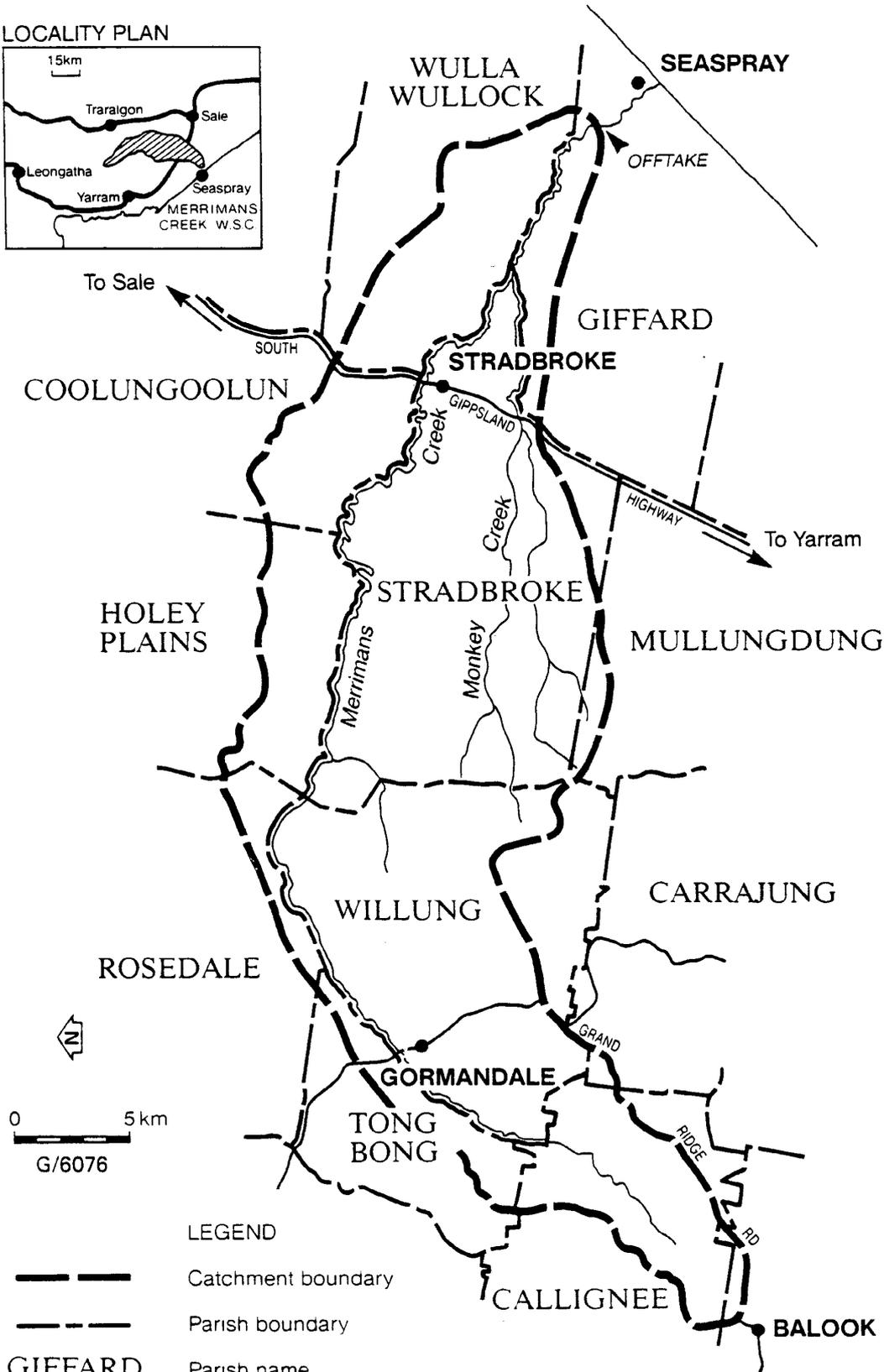
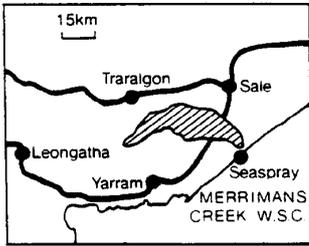
Administrative Areas

Parishes: Giffard, Wulla Wullock, Stradbroke, Coolungoolum, Holey Plains, Rosedale, Tong Bong, Callignee, Mullungdung, Carrajung, Willung

Municipalities: Shires of Rosedale, Alberton, Traralgon.

PLAN No. S-1505
MERRIMANS CREEK (SEASPRAY)
WATER SUPPLY CATCHMENT

LOCALITY PLAN



- LEGEND**
-  Catchment boundary
 -  Parish boundary
 - GIFFARD** Parish name

MALLACOOTA BOREFIELD (MALLACOOTA)

This borefield is WSW of Mallacoota in the far east of Victoria. The bores are located within an easement along Pipeline road, administered by the Mallacoota Water Board. Bore No. 1 is sited adjacent to CA 27 within the Parish of Mallacoota and Bore No. 2 is located within the Parish of Betka to the south.

The Catchment

The borefield recharge area is suspected to be the area to the west where the Ordovician sandstones/mudstones meet the granitic hills. This is an extensive area which receives up to 1000 mm of rain annually. The native vegetation occurs as an open forest consisting of a silvertop/white stringybark association. Direct infiltration in the area immediately around the bores is believed to contribute very little to the yield.

Land Tenure and Use

The recharge area for this catchment is entirely public land, (A1) Croajingolong National Park. The Land Conservation Council (LCC) recommendations appear in "Final Recommendations, East Gippsland Study Area, LCC, 1977". LCC recommendations appear in brackets.

Water Supply System

Both bores were drilled to supply water to Mallacoota during 1982/83 drought and have not been used since. Bore No. 1 is 65m deep has a yield of <1/sec and is of poor quality, bore no. 2 is 96m deep and also of poor quality and yield. The predominant quality problems are one of high ionic content (Mn and Fe), odour, taste and colour. Both bores recharge slowly.

Mallacoota relies on water diverted from the Betka River for domestic supply. The immediate strategy of the Mallacoota Water Board is to augment supply from the Betka River (their preferred source) by increasing the storage capacity by between 50 and 100 ML. This is expected to be sufficient to cater for population growth and drought in the foreseeable future without having to utilise the bores. The Water Board has no plans to further develop the borefield because of the poor yield and quality of the supply.

After consideration and consultation with Board officers it was decided not to recommend this catchment for proclamation.

CANDOWIE RESERVOIR NORTH ARM WATER SUPPLY CATCHMENT

The proposed Candowie Reservoir No. 2, an offstream storage, is proposed to be located on a tributary of the Bass River, north of the already proclaimed catchment of Tennent Creek which supplies Candowie Reservoir No. 1 (*Victoria Government Gazette, No. 47, 13 June 1979*).

The Catchment

The natural catchment to the proposed reservoir is relatively small (226 ha), the topography of which is comprised of moderate hills. The catchment area has a geology of cretaceous sediments.

The area has been extensively cleared, remnant vegetation in the area consists of mountain ash, messmate and blue gum, with an understorey of blackwood and other acacias. The majority of the catchment carries improved pasture.

Elevation/Rainfall

Almurta	35m	1027mm
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Land Tenure and Use

The catchment is approximately 50% private and 50% public land. Private land is used for mixed grazing and dairying. The Westernport Water Board own the majority of land on which the reservoir will be located as well as a substantial buffer strip around it above the full supply level.

Water Supply System

The proposed storage (4700ML) will be used as an off stream storage, augmenting the existing storage (2300ML). The two storages will be connected via a pipeline. This supply is used to service a number of settlements along Westernport Bay and on Phillip Island (a total population of 5500). During the tourist season (December to April) a population of up to 35,000 may be supplied from these storages. The raw water from the reservoir has high levels of turbidity and colour as well as relatively high concentrations of manganese, iron, nitrogen and phosphorus. Algal blooms occur regularly on the reservoir during summer which further decreases water quality, runoff from the surrounding agricultural land is believed to significantly contribute to the high ionic and nutrient concentrations. A treatment plant has recently been installed and this has resulted in a major improvement of water quality had a dramatic effect on water quality. The supply is chlorinated.

The Westernport Water Board is the responsible water supply authority.

Administrative Areas

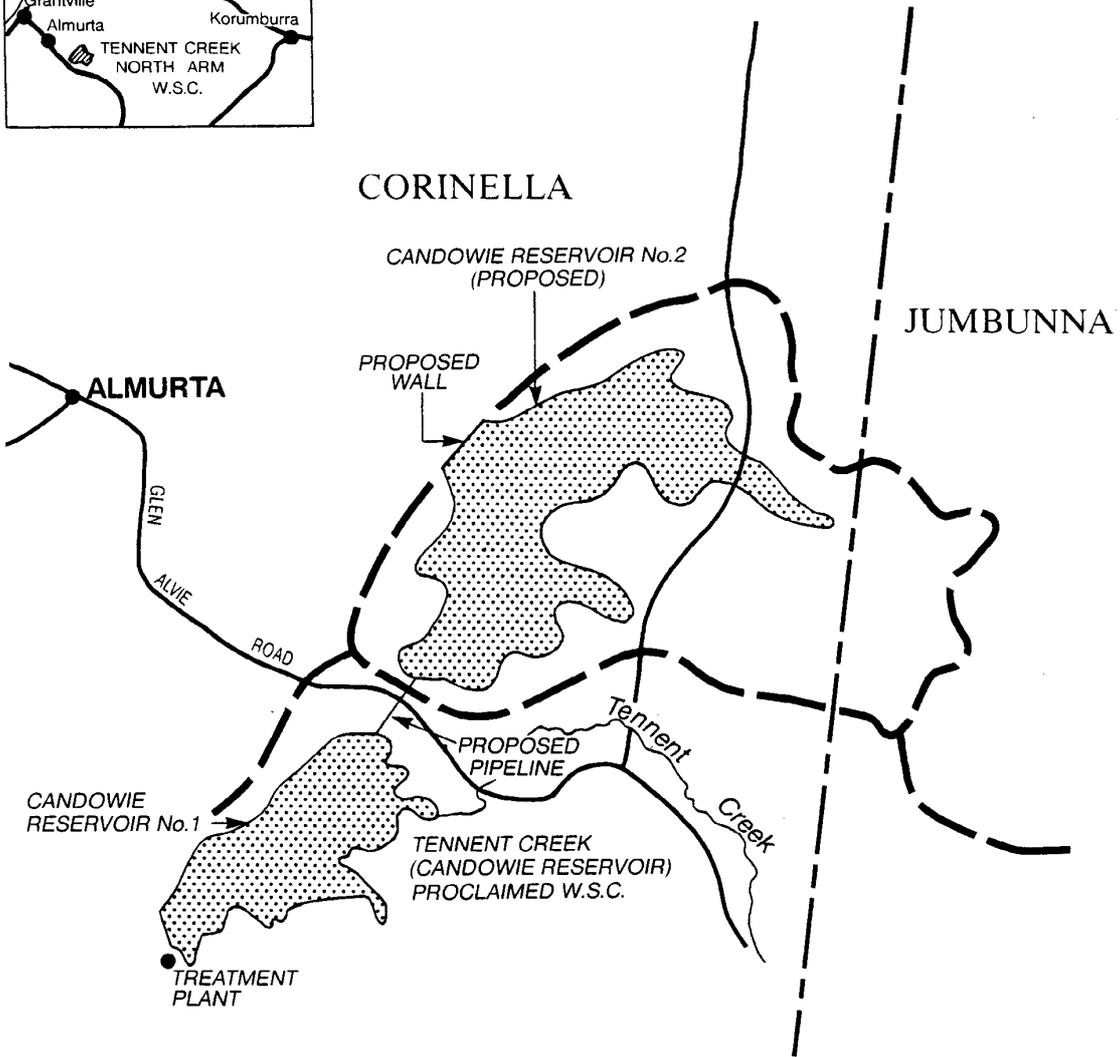
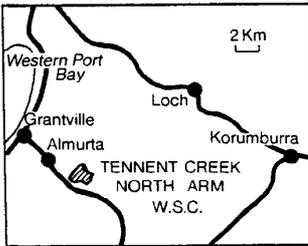
Parishes: Corinella, Jumbunna

Municipalities: Shire of Bass

PLAN No. S-1503

CANDOWIE RESERVOIR NORTH ARM
WATER SUPPLY CATCHMENT

LOCALITY PLAN



LEGEND

--- Catchment boundary

- . - . Parish boundary

CORINELLA Parish name



metres



G/6075

RECOMMENDATIONS

That the Land Conservation Council, under section 5(1) (b) of the *Land Conservation Act* 1970, recommend to the Governor-in-Council that the following catchments be proclaimed under section 22(1) of the *Soil Conservation and Land Utilization Act* 1958:

- Tarwin River and Tributaries (Dumbalk, Meeniyah) Water Supply Catchment, Plan No. S-1504.
- Merrimans Creek (Seaspray) Water Supply Catchment, Plan No. S-1505.
- Candowie Reservoir North Arm, Water Supply Catchment, Plan No. S-1503.