Historical Association of Wetlands and Rivers in the Busselton-Walpole Region

WATER RESOURCE TECHNICAL SERIES

WATER AND RIVERS COMMISSION REPORT WRT2 1996

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Cover Photograph:
Payne's Flour Mill, near capel. In 1851 George Robert Payne took up a block of land on the Capel River where he built a flour mill almost entirely of wood, making a dam across the river and utilising the water thus conserved to run the mill. Photograph (taken c. 1900), and text courtesy of Battye Library 345B.

Historical Association of Wetlands and Rivers in the Busselton-Walpole Region

Report to Water and Rivers Commission

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STREAMLINE ABSTRACT
This study and report documents the historical association of wetlands and rivers of the Busselton - Walpole Region to people of European origin. It covers their first exploration of the Region, early settlement and farming development, water supply developments for domestic use and irrigation, the development of the timber industry and land drainage. It draws up a list of important sites within each Local Government Area in the Region

The study contributes to a series of documents published for the purposes of water allocation planning in the Busselton - Walpole Region. Other publications focus on the following topics:

- Recreational Use of Waterbodies in the Busselton - Walpole Region
- Report on an Investigation into the Aboriginal Significance of Wetlands and Rivers in the Busselton - Walpole Region
- Environmental Significance of Wetlands and Rivers in the Busselton - Walpole Region
- Scientific and Educational Use of Wetlands and Rivers in the Busselton - Walpole Region

Key Words
Water Resources Planning, Historical Association, European Settlement, Wetlands and Rivers, Busselton - Walpole, Western Australia

FOREWORD

The Water and Rivers Commission's Policy and Planning Division is currently undertaking a series of studies aimed at developing a water resources allocation strategy for each of the six regions into which the State has been divided for the purpose. Allocation strategies are to be based on the Commission's aim of promoting a sustainable balance between environmental, economic and social values of the State's water resources. This report contributes directly to that aim.

This current study relates to the Busselton-Walpole Region of the South West. It is the second region to be covered and follows a study of the Perth-Bunbury Region carried out between 1985 and 1991. As part of the study consultants were engaged by the Commission to report on the historical association of wetlands and rivers within the Region.

This report by the consultants is being published by the Commission in order to inform the community, and to encourage wide debate on this component of the community's need for water, and on the allocation planning process as a whole. While this report has been prepared consistant with the Commission's resource management aims, many of the opinions expressed are those of the consultant and are not necessarily all endorsed by the Water and Rivers Commission.

The Commission would welcome comments on the report from any interested person or organisation. Comments should be addressed to the undersigned.

Tim McAuliffe
Director, Policy and Planning Division
Water and Rivers Commission
November 1996

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* including, for each shire, a table and a map of historical sites

1.0 INTRODUCTION

1.1 Aims, and the Value of Historical Data

This work, commissioned by the Water Authority of Western Australia, documents the historical association of wetlands and rivers to peoples of a European origin in the Busselton-Walpole region. The Water Authority seeks to assign all water resources; in doing so it requires that all values and uses which society places on those resources receive reasonable consideration. Accordingly, this report aims to provide a list of sites which have European cultural significance and which perhaps might need to be protected from any development of water resources. It also provides a brief and preliminary synthesis of the way in which inland waterways have been utilised since the Europeans first commenced their visitation of the region.

To state that water was essential to Europeans in exploration and settlement of the region is obvious. Technically speaking *any site* of historical importance can have a "water utilisation" component to it. Explorers required water in their travels, and early settlers sought a permanent source of water proximally. Later settlers took up land more distant from water sources but nevertheless had to cart water over increasingly large distances, or develop water resource alternatives locally. In order to make the present task achievable in the time available for its completion, the listing of *every site* with an historical importance was regarded as impractical and unfeasible. In view of this it was decided that the aims

water.

Since the European occupation of the south-western portion of Australia, significant degradation of water and land has occurred, rendering some parts unproductive or unusable. Land and water rehabilitation is therefore receiving increasing attention (Western Australian Water Resources Council, 1992), and could be a useful part of the process by the faithful documentation of early European conditions. Early records of explorers and settlers clearly indicate that some water sources were "good", "excellent", "sweet" or "fresh", and that others were "brackish", "salty" or "indifferent", and in the Blackwood catchment these pools were in the same river systems. This demonstrates that local hydrological patterns and conditions were, and still are, complex. Our clearest guide to restoration of water courses should be *the way they were*, and historical data provide the easiest, and possibly the most accurate, source of this information. Therefore, the given above could be combined to deal specifically with water-related issues, in other words:

> *to investigate sites of European cultural significance which demonstrate the ways in which waterways have been significant over the period of development of the region.*

The purpose of this introduction is to set out these relationships within the context of a broad overview.

With respect to the European colonisation and occupation of Australia, two themes have gained momentum in recent years in the discourse of Australian environmental history. The first is the increasing value applied to European cultural heritage in Australia where attempts to reconstruct early European traditions, landscapes and built environments are encouraged. The second is the increasing recognition of the mismatch between the expectations and assumptions of the post-1788 European settlers of Australia, and the capabilities of the ancient land they came to occupy (Frawley 1994), and the increasing recognition of the uniqueness of the Australian landscape in its pre-settlement condition (Bolton 1981a). This has led to open criticism of the lack of foresight our forebears showed with respect to the environment, the fragility and its potential for almost irreversible degradation (see for example Lines 1991). Both themes are complimentary in the context of this study since they establish the importance of historical data to the management of natural resources, in this case writings and memories of early Europeans, although in some instances unwitting and indirect, provide not only an explanation of our current circumstances, but also a guide for future behaviour.

1.2 Study Region

The Water Authority's Busselton-Walpole region comprises of the Shannon, Warren, Donnelly and Blackwood Rivers, and the Busselton-Coast drainage basins (see Figure on page 15). It is an area of approximately 35,000 km^2 bounded roughly by the towns of Capel, Busselton, Dunsborough, Augusta, Walpole, Kojonup, Katanning, Nyabing, Harrismith, Narrogin, Darkan, Boyup Brook, Balingup and back to Capel. Figure 1 depicts the region and includes major place names used in the text of this report.

A conspicuous feature of the study region is the steep environmental gradient imposed by rainfall; western and southern coastal parts receive the most

rainfall. In particular, the far southern coastal area receives rainfall virtually all year round with little summer aridity. By contrast, seasonal aridity becomes predominant, and overall rainfall decreases, with increasing distance inland. Elsewhere this gradient has been recognised by the identification of two biogeographical zones (ie. Hopper 1992) which neatly divide the study area, separated by the 800 mm isohyet, with the "High Rainfall Zone" close to the coast and the "Transitional Rainfall Zone" inland.

These gradients enable a generalisation to be made for the study region, whereby trends for water reliance and utilisation differ markedly between wetter coastal regions (encompassing towns such as Busselton, Augusta, Manjimup, Pemberton and Walpole), and seasonally arid inland areas (particularly the central and upper parts of the Blackwood catchment). For the purpose of the introductory overview to follow, this distinction is maintained.

1.3 Structure of the Report

The remainder of this Chapter deals with a broad overview of the history of European associations with rivers and wetlands, including notes on the early exploration and settlement, and attitudes to and utilisation of, water, then a discussion of environmental change, followed by a discussion of the abstract notion of "cultural significance". The significance of sites, dictated by their value to society in general, leads to the methodology which is established in Chapter Two.

Two methodological approaches are used in the report; the first, given in some detail in Chapter 3, uses general principles of settlement patterns, and water utilisation patterns, to determine significance of any site in any particular part of the study region. The second approach, given in Chapter 4, is more traditional, and relies on the listing of important sites (detailed in Appendix C), and establishes the relationship of these sites to wetlands and rivers, through the utilisation of water.

Chapter 5 briefly sets out general recommendations and conclusions stemming from the report.

1.4 Early Exploration

The earliest exploration of the region by Europeans is thought to have been undertaken by the Dutch on the ship "Leeuwin" in 1622, mapping the area between Point Nyuts near Walpole, and Hamelin Bay north of Augusta. In the 1700s a succession of French and British boats visited the western part of the continent, including expeditions lead by St Allouarn (1772), D'Entrecasteaux (1792), and Vancouver (1791). Occasionally brief excursions were made on-shore in search of water, or safe anchorages were sought in times of storms. In 1792 a French expedition led by Baudin (on the "Geographe") and Hamelin (on the "Naturaliste"), with an entourage of scientists, gave a little more attention to the shore itself rather than the coastline (Cresswell 1989 citing Marchant 1986) as descriptions of natural history were keenly promoted by governments of the day in a period in which there was a greater need for scientific knowledge. Flinders passed by the area mapping the coastline in 1801 and 1803. Few inland explorations occurred and little or no association between these early European visits and rivers and wetlands are recorded. Early in the 1800s sealers on the far south coast occupied areas such as those around the Nornalup Inlet, but if any sealers kept diaries or recorded their observations, places of abode, or conditions of the land and water, these have long since vanished.

Inland exploration of the region commenced in the late 1820s and early 1830s, and settlement commenced soon after, being dependant upon travel routes into the interior to effectively access lands granted. Early inland explorers were greatly affected by the presence or absence of water along their routes.

One very early explorer, Thomas Bannister, given the task of forging a route between the Swan River colony and that at King Georges Sound in late 1830 and early 1831, in his diary frequently cites being in great need or want of water (Burton Jackson 1993), despite moving through comparatively open forest or woodlands. Harris similarly describes needs as he headed into area largely unchartered by Europeans north of Mt Barker *en route* to the Swan River Colony in early March 1837

> *"...and we felt a great anxiety as to our further progress, the line of country being unknown as to its resources in water and feed." (Harris 1837).*

There is no doubt that early explorers were aided in their search for water by the local Nyungars[1] (see Section 3.1).

By contrast early exploration closer to the coast was often difficult due to more variable topography and landscapes and thicker vegetation, despite the relative abundance of what appeared to be permanent sources of

[1] The use of the name Nyungar follows the convention set by Berndt (1973) for local Aboriginal peoples who occur in the south-western part of the continent.

fresh water. For instance, referring to an area north of Walpole, Bannister writes of

"...a Devil of a country for walking..."

with considerable areas of sandy, boggy plain covered with rushes and extremely thick, coarse, high grass (Burton Jackson 1993: p. 59). Around the Walpole Inlet they found several fresh water streams still running at that time of the year (January, Burton Jackson 1993).

With explorers such as William Preston in 1831, Alfred Hillman in 1833, and William Nairne Clark in 1841, colonial exploration extended in a westerly direction along the coast from King Georges Sound to the Nornalup-Walpole area (Fernie and Fernie 1989).

Early exploration of the more humid, extreme south-west extended inland and eastwards from Augusta and Vasse, and in a south-westerly direction from Lake Muir- Cranbrook - Mt Barker settled areas, leading to the establishment of pastoral leases particularly along the southern coast (see Section 3.3).

1.5 Early Settlement: Agriculture and Resource Extraction

The earliest European settlement in the region was integrally tied to the availability of water for potable supplies. As noted above, settlement in the upper parts of the Blackwood River catchment would capitalise on important sources of water, particularly where those water supplies persisted through the dry summers. In coastal areas, like Augusta, water supplies in dry summers were still important, although less critical due to higher and more consistent rainfall.

Referring to the settlement of Augusta and the Vasse area in the period 1829 - 1841, Shann (1926, p. 13) states:

"The pioneers in effect were like raiders on the Saxon Shore, in haste to make good their footing by the capture of a clearing that would give them instant returns. They tried the jarrah and karri forest, and, failing, were forced to seek out the open limestone lands, where the tuarts grew, or the coastal alluvial areas..."

The difficulty was perhaps solely due to the unpreparedness of early settlers for the environmental conditions they encountered. Shann (1926, p. 13) identifies

"...three barriers set by nature to the speedy conquest by European methods of the south-west corner, viz patchy land, dry summer and the big timber."

Most successful establishments occurred in those areas where relief from dry summers was available in the form of permanent fresh water, where "good agricultural land" was available, and where the timber overstorey was relatively open. These included the Vasse on Geographe Bay, and the Williams area inland. Early homesteads were invariably associated with good local water supplies. Berry (1987, p. 18) states that

...the availability of water was an essential consideration... most of the settlers ...selected sites for their homesteads which were close to rivers or permanent water."

Many examples of this can be found in the study region.

With the spread of stock prior to fencing, naturally occurring water was essential in summer. Sheep provided an important source of sustenance and revenue to early settlers, being shepherded over large parts of the inland portion of the study region, as well as in adjacent districts. Numerous records exist of the importance of summer pools in inland parts for washing sheep prior to shearing, and dipping them for disease control. For instance (Laurie 1994, p. 19), speaking of shepherding in the 1870s and 1880s in the Cranbrook Shire:

"In the summer months the sheep had to be moved to places where there was a year round water supply. They also had to be washed and the dust and grease removed before they could be shorn, which is how Washpool derived its name."

Collecting of sandalwood, and bark-stripping of mallet for tanning, established early resource extractive industries. For these, the pools of water and soaks, seepages and springs available during summer months were absolutely crucial, and the transport routes incorporated such water supplies, as did the utilisation of existing Nyungar tracks (Pustkuchen 1981).

Travel routes were also established to enable the transportation of stock to southern pastoral areas and to shearing locations. These regular movements of stock commenced as early as the 1850s, with the Bussells' Donnelly runs (Terry 1978), and by the 1890s considerable portions of the southern coast from Walpole to Augusta were dedicated to pastoral purposes (see for instance Fernie and Fernie 1989, p. 21).

Travel routes linked homesteads and connected settled areas with the colonial establishments of King Georges Sound and Swan River Colony, and they often followed water courses or sources.

Railway lines were constructed in earnest in the 1880s. Being steam driven, they required sources of freshwater for boilers, and railway lines were, therefore,

directed along routes where such supplies were reliable. In inland, drier areas, water availability was consolidated by constructing tanks, and additional watering points were created by digging dams.

These methods of overcoming an obstacle, *viz* the absence of fresh water, in part at least, triggered the next "wave" of settlement in the region. The technical ability to create large permanent fresh water supplies away from naturally occurring sources and water courses allowed for much larger tracts of land to be developed for agricultural use.

The wheat growing areas expanded rapidly between 1900 and 1930, and again after 1950. As wool production expanded with increasing land ownership and increased fencing of pastures and properties, water supplies for stock were sought often at some distance from naturally occurring water courses. The building of agricultural dams facilitated this. Main periods of geographical expansion for the wheatbelt industry occurred during the periods of 1903 - 1914, and 1920-1930; they were separated by a period of adversity, war and a severe drought (Snooks 1981). During the second phase heavy subsidisations from the government through provision of social overhead capital, principally the railway network, Soldier Settlements and Group Settlements, enabled

> *"...many inexperienced men to take up the lighter lands on the dry eastern and heavily timbered south-western margins of the wheatbelt." (Snooks 1981).*

Other sources of water in the wheat growing areas included the creation of catchments on granite outcrops, and the sinking of wells using boring equipment.

The timber industry evolved from sandalwood extraction in areas east of the Darling Range (the inland parts of the study region), where substantial volumes were taken in the 1830s and 1840s (and mentioned above). Mallet was also exploited in these regions, and early cattle grazing reduced undergrowth in mallet stands, making the trees less susceptible to fire. Large areas north-west and south-west of Narrogin were reserved for clearing and planting of mallet (Pustkuchen 1981).

The exploitation of heavy timber was at first hampered due to its great density (settlers were more familiar with, and equipped for, European softwoods or conifers) and the large effort required to cut and cart it. Once overcome the timber industry grew, principally in the Karridale and Quindalup parts of the study region, and later around Manjimup, Pemberton and Northcliffe. Demand for large volumes of jarrah and karri in the 1870s and 1880s came from the railways themselves, as the requirement for sleepers grew (Dargavel 1994). A rapid expansion of the industry in the 1890s was driven by international markets; large scale operations were developed in Western Australia (in contrast to south-eastern Australia; Dargavel 1994). The good example is M.C.Davies' enterprise with three mills at Kudardup, Karridale and Boranup near Cape Leeuwin, railway lines, large jetties, and a host of services were built to make the communities virtually self-sufficient (Dargavel 1994).

The development of timber industries drew a heavy reliance on water supplies. Water was required for steam driven mills and steam driven locomotives (as described above). Timber mills:

> *"...were usually sited at the approximate centre of a company lease and, of necessity, close to a permanent water supply - usually a creek" (Trautman and Trautman 1980, p. 2.)*

Large timber communities also required potable water supplies for domestic use.

Mining activities were limited in the study region, and most were relatively recent, in the 1890s and onwards. Gold was discovered on the Boodjidup Creek north of Augusta in the 1890s, causing minor activities. Graphite was extracted from the Donnelly area, resulting in the road west of Manjimup (Graphite Road), and the "One-Tree Bridge" over the Donnelly River. Tin was, and still is, mined from the Greenbushes area, and sleucing with water was an important part of the extraction process. As with the timber industries, provision of water was important for the mining community, as well as being important in the industrial process itself.

By contrast, some parts of the study region had existing high water table levels and successful development of the land required removal of water. Drainage schemes were important in the Capel, Wonnerup, Busselton Vasse areas of the study region, mainly to alleviate flooding. The earliest drainage activities were conducted in 1864 and 1874 when cuts were put through sand dunes to the sea to drain wetlands, following problems caused by the 1862 floods (Krantz and Chase, pers. comm.). Le Page (1986, p. 362) gives some details of the drainage works carried out by the Government, commencing in 1907, for the Wonnerup and Vasse systems. In other areas as waterways were affected by salt, local drainage schemes were implemented in an attempt to return productivity to the land.

1.6 Early Attitudes to Water

Early European attitudes to water, extending to those of the present day, exhibit a strong short term exploitative approach. A striking feature of early diaries, and secondary accounts of early settlement, is the almost total absence of reference to wetlands unless they performed some utilitarian function like sheep washing. This contrasts strongly with indigenous attitudes to water where social structures impressed more reverential sentiments and behaviours, where patterns of land usage and "ownership" by tribal groups was almost undoubtedly tied to the occurrence of water, and where waterways figured prominently in the Dreamtime.

Documentation of early contact between Nyungar peoples and Europeans demonstrate almost complete misunderstandings of each other's cultural bases[2], in particular, from the European perspective, concepts of property and land ownership. Nyungar concepts of sharing and common possession within clans applied to the land and the water (for the continuation of existing conditions for tomorrow as much as today through the incorporation of appropriate long term behaviours). Examples of sharing are demonstrated above with the showing of water sources by native guides to early explorers, contrasting with the propensity of settlers to appropriate them for domestic and agricultural usage. Pustkuchen (1981, p. 17) tells of difficulties arising only when cattle and sheep were speared:

> *"The cattle and sheep used tribal water, and surely were as much tribal property as were the parrots and kangaroos."*

In inland areas Nyungars followed river courses closely. Pustkuchen's (1981, p. 17) recollections were that:

> *"their journey was always from water to water,... (i)n winter there was plenty of water but the aboriginal (sic) usually stayed put in his home area along the main rivers"*

Along with the appropriation of water supplies, European habitation saw the demise of such travel routes, and the severance of traditional patterns of existence between the Nyungar peoples and the land.

European utilisation of water courses did not rest with the extraction of water for local domestic use. Their misunderstandings of Nyungar culture were mimicked by their near complete miscomprehension of the nature of water and its relationship with the ancient land it occurred in. Often large numbers of hard hoofed and thirsty stock (cattle, sheep, pigs and goats) were allowed direct access to permanent river pools, lakes and swamps, springs or soaks. Smaller water sources were physically enlarged and built in (welled) in an attempt to maximise domestic and agricultural supply. Dams were built impeding and redirecting water flows, and land was drained and irrigated. Land was cleared of vegetation completely altering groundwater levels and at the surface changing sedimentation patterns, and imported nutrients were applied liberally.

The net result is well known and classically tragic, with the eutrophication of waterways, salinisation of waters, and the geomorphological restructuring of rivers first alienating Nyungar patterns of existence, and now forcing a massive alteration to European attitudes to the land and water. That this shift in attitude is now evident, even whilst current agricultural practices continue in the study region in particular, and Australia in general, is testimony to the entrenched nature of existing European exploitative attitudes which manifested themselves in the agricultural development of the south-west (see Sadler and Cox, 1987, cited in Schofield *et al.* 1988). They are best exemplified by the problem of salinity of waters, and its association with clearing (see Section 1.7).

[2] The origins of these "misunderstandings" stem from the European cultural imperialism evident around the time of exploration and settlement, which resulted in the colonisation of distant lands, and manifested itself in the exploitation of the environment and indigenous peoples.

Lines (1994, pp. 192-3), writing of the Bussells and their settlement of the Vasse region, writes:

"Australia's indigenous inhabitants ... occupied the land in a way antithetical to visions of the empire. The Aborigines did not understand, could not understand, and were not permitted to understand the vision of empire behind the market, the vision of progress and the prosperity that lay behind settler restlessness... The sudden appearance and undivided determination of the British immigrants were incredible.

Despite the wealth of their own cultural background, the Bussells were incapable of appreciating the depth and breadth of Aboriginal culture. Nor did they care to. They found Aboriginal life inaccessible, it was oral rather than written and technologically satisfied rather than technologically restless."

At the very least, documentation of European attitudes in their associations with wetlands and rivers must be perceived as instructive for the future, as examples of how not to behave, and as examples of the need for an understanding of an area before we can use it sustainably.

Early European uses of water were many and varied, and difficult to categorise as being distinct from the uses of land.

Domestic use included drinking, cooking and washing, and supplies were drawn from naturally occurring sources, for the lucky settlers who had a reliable supply, or from wells, tanks or dams constructed close to homesteads, for those who didn't. Shortages during summer in inland parts of the study region would have ensured an early recognition of the value of water in a dry continent, and ultimately lead to large scale water supply developments like the Wellington Dam on the Collie River (in the 1930s).

Damming of rivers, and the extraction of ground water are the two main forms of water developments to supply domestic and agricultural needs.

The use of water for the generation of power was integral to the development of resources in the study region. Sites where the use of water flows for wheat milling now have heritage and tourist significance (for instance Millbrook on Gunyulgup Creek near Yallingup). The importance of a water supply for steam driven engines in the timber industry, and for locomotives, is outlined above.

The principal agricultural use of water in the study region was arguably the watering of stock, but agricultural use extends well beyond that. Viticulture, for instance, although only successfully expanding in the western part of the study region in the 1970s, requires permanent freshwater supplies, which come mainly from constructed dams on local creek lines and local irrigation schemes. Aquaculture of freshwater crayfish, and to a lesser extent some exotic fish, utilised these dams initially as a by-product of other agricultural usages, but increasingly revenue gained from aquaculture stands in its own right as a management objective of farm dam waters.

Finally, the reservation of land or waterways for their *in situ* and intrinsic aquatic values has really only developed in the latter half of the twentieth century. In the Walpole- Nornalup area the first reserves were established by 1886 (Fernie and Fernie 1989). In 1910 a ministerial expedition, led by the then Minister for Lands and Agriculture (and keen fisherman) James Mitchell, was taken up the Frankland River where they were suitably impressed with the river and forest. In the words of the Surveyor General at the time (cite in Fernie and Fernie 1989, p. 34):

> *"They were very much struck with the extreme beauty of some stretches on that river and it was practically decided by the Ministers that a fairly large area should be reserved for park lands to protect the beauty spots."*

This example serves to demonstrate that the spirits of "perpetuity" and "caution" were present in management even at the turn of the century; they were simply overrun by the forces of settler survival and growth, which were themselves underpinned by the belief in a God-given right to exploit the land and the water.

1.7 Environmental Change

Historical research of this kind results in a documentation of anecdotal and written records of the change of conditions of rivers, wetlands and other water bodies over time. Spinoffs include early records of indicators of environmental change, such as introduced fauna and flora, exploitation of native aquatic species, and aspects of water quality and river geomorphology, and knowledge of these has great value for restoration of the landscape. Early descriptions of the environment also provide us with a sense of perspective, imparting an impression of a changing landscape.

For each of these indicators, the early associations of European explorers and settlers with rivers and wetlands initially incorporated Aboriginal knowledge. The presence of both salty (brackish), and fresh water in inland parts of the Blackwood catchment in the nineteenth century exemplifies this well. For instance Bignell (1981: 7) notes that

> *"It is thought that the Katanning tribes did not travel as far east as Pingrup as they believed the waters had turned against them, meaning possibly that at some time they had dried up or gone very brackish. This contention is supported by the fact that John Holland, when attempting to blaze the first track to the Goldfields in 1893, found that local Aborigines had no knowledge of any watering points beyond Kuringup, sixteen kilometres east of Nyabing."*

Such records indicate that the salinity of waters in the south-west was by no means a simple matter. Harris's (1837) notes indicate that the Arthur River near its junction with the Beaufort contained "both fresh and salt pools".

Nevertheless it became apparent that waters in south-western Australia were becoming more saline, and early references (1897, 1909, 1917) were made to the

relationship between ring-barking and cultivation, and increasing salinity (Schofield *et al.* 1988).

Later, the first viable theory of the salt problem was proposed by Wood (1924), suggesting a connection between the substantial clearing of native vegetation, rising of ground waters to dissolve soil salt, and the increasing salinity of waterways. The seventy years following this recognition have seen only a slow acceptance of the need for tangible steps to address the problem. Bolton (1981a), referring to the derision suffered by experts in 1929 when they claimed that poor crop results were the result of excess salinity, went on (p. 138):

> *"Salinity...was an expensive and complex problem which would continue to grow for the following half century; it was understandable that farmers and politicians did not want to hear about it. Such attitudes were one of the strongest impediments to environmental reform."*

Bolton's comments are true to this day.

The report by Sanders (1986) details the historical context of salinisation in south-western Australia, and Schofield *et al.* (1988) detail the extent of stream salinisation, time trends in stream salinities and predictions for the future. Documentation of salinity levels in wetlands and rivers over time has been critical in the comprehension of the salinity problem.

Components of the aquatic biota have also changed their abundance and distribution. Good examples include the marron (*Cherax tenuimanus*, see Morrissy 1978); its original distribution extended to at least the middle parts of the Blackwood River system, whilst their present day natural distribution in that river is only in the lower parts, and even there only in fresher tributaries. Being a species with a high profile in the community, this species has a significant role to play as an indicator for river restoration. Prominent plants show this same trend; for instance the inland riparian tree *Casuarina obesa* has reduced its range in the middle and upper part of the Blackwood River catchment, and other trees species have declined due to salt or inundation (see Froend *et al.* 1986).

Mapping the introduction and spread of introduced species is another area where historical data will be particularly instructive in their control. Documented cases of introduced inland aquatic fauna in the study region includes several species of invertebrate and several fish (Horwitz 1994). Most of these have environmental, agricultural or economic significance. Good examples include the yabby *Cherax destructor* (see Morrissy and Cassells 1992), the snail *Lymnaea columnella* , and the introduced fishes such as *Gambusia* and red fin perch[3] (see Coy 1979) and trout. Similarly, several species of aquatic plant have become ensconced in waterways of the region like the bulrush *Typha orientalis* and others, and are usually associated with eutrophic or otherwise distrubed or degraded system (see Froend *et al.* 1993; Humphries *et al.* 1991).

1.8 Culturally Significant Sites

Places or sites can have an importance to individuals, to groups of people, to a region, a State or a Nation, or to a local community, but from whichever perspective, they are important because they inform us about ourselves, and the past. This raises a conundrum for this study: if any place can be important to one or more people, how do we assign significance?

The Australian national committee of the International Council of Monuments and Sites (ICOMOS) adopted a set of guidelines for the establishment of cultural significance, for use in the Burra Charter. The Burra Charter was drawn up for the conservation of places of cultural significance in Australia. In the Charter, "cultural significance" means aesthetic, historic, scientific or social value for past, present and future generations (Marquis-Kyle and Walker 1992). The following describes some of these values (adapted from Marquis-Kyle and Walker 1992 for the purposes of this report):

Aesthetic - aspects of sensory perception for which criteria can and should be stated. It includes consideration of the form, scale, colour, texture and material of the fabric, the smells and sounds associated with the place and its use.

Historic - a place may historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value

3 "Perch" are frequently cited by local community representatives as having appeared or dissappeared from waterways in the study region, but it is not always clear to which species they refer. Red fin perch were introduced into the south-west in 1892 and have proliferated under a variety of environmental conditions since then (Coy 1979), including eutrophic and/or saline waterways. Under certain conditions of high density in red fin populations runting may occur leading to a loss of large fish, and to a casual observer, the apparent "disappearance" of that species (Pen pers. comm.). Alternatively, other smaller native perch species exist in waterways of the region, and these may have declined with water quality degradation.

as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives *in situ*, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.

Scientific - a place may have value depending on the importance of scientific or research data involved, on its rarity, quality or representativeness, and on the degree to which the place may contribute further substantial knowledge.

Social - a place may become or is already a focus of spiritual, political, national or other cultural sentiment to a majority or minority group.

For the purposes of this report, by far the majority of sites presented will have historic and/or social value. It is assumed that sites with value to the Aboriginal community will already have been determined for the region. Similarly the existing scientific and recreational values have been documented (but this does not preclude the recognition here of scientific or recreational sites of historical significance). Sites with economic value will, no doubt, be addressed in another forum.

In its brief for the report, the Water Authority requested information concerning

- the first exploration of the region by Europeans
- early settlement and farming developments
- water supply developments for domestic use and irrigation
- the development of the timber industry, and
- land drainage.

Thus, sites with historic and/or social value which relate to the above five criteria were sought in this study. Historic sites can best be attained by reading historical texts, and accessing heritage records (those sites already recognised as having State or National significance) and extracting specific information. Sites not yet documented can be attained by requesting information from historical societies, local governments and the local communities in each area. Sites with social value can be attained by reference to the local community in the first instance. We have assumed that historical sites dating to beyond living memory should constitute our substantial effort in this report.

The guidelines followed in this report will not resolve the question "*how* significant is a site". Examples demonstrating the difficulty of assigning significance were often encounteredin this research. For instance Clark (1979, p. 255) described the process of obtaining a reliable water supply from his piece of land near Kulin (just beyond the study region) in 1913.

> *Here I dug a hole to hold several hundred gallons and rain immediately afterwards filled it ... my waterhole kept us supplied".*

Being the first water development on this large piece of agricultural land (land in the Upper Blackwood Catchment was still being settled in the 1910s and 1920s, particularly land without a permanent water supply), does it constitute a significant site? To the land owner it probably would; to the local community it might, along with several others like it, but beyond that its significance might be lost or only recognised after competition with several other interest groups or stakeholders.

We recognise that we cannot assign a degree of significance to any site using the guidelines outlined above; each site will have to be assessed individually. This report will not attempt to prioritise sites, nor act as a surrogate for any process which aims to determine the worth of historical sites. In endeavouring to ensure that nothing of historical significance becomes inadvertently lost through water allocation to another beneficial use, this report sets out to recognise as many important sites as possible, and to document trends in the historical associations of wetlands and rivers with Europeans, in order to provide a context for further determinations of significance, as the need arises.

2.0 METHODOLOGY

2.1 Sources of Information

A variety of information sources are available to undertake a study of this type, but given the time allocated, not all information could be accessed. Therefore, in order to achieve the aims, possible sources of information were examined and from these several were chosen which fulfilled the criterion of maximising the information content within an achievable time frame.

Ideally, information on the European associations with wetlands and rivers in the study region could be obtained from:

- Oral histories; recollections of individuals,
- Original diaries and original maps and full historical accounts,
- Secondary sources (books on local, regional or national history), maps, year books or other documents compiled from primary sources,
- Information held in the State Archives, Water Authority files, or other relevant Governmental files,
- Information held in the Listings of the National Trust, Heritage Council, Australian Heritage Commission, and on Heritage Trail pamphlets, and
- Information held in the community (Historical Societies, Community Groups).

Oral histories were used if already available, but were otherwise regarded as inappropriate because of the complex methodologies required for data acquisition, the limited scope they offered given such a large study region, and due to the assumption stated above (Section 1.8) that most of our effort should go to documenting information beyond living memory. It was deemed inappropriate to undertake an examination of primary sources of information from original documents due to the time required to interpret such documents (which are often difficult to read and/or understand, and where place names have probably changed since they were written). Secondary sources like books on local histories, of which there are many for the study region, provide an adequate "short-cut" since the authors have already undertaken this detailed synthesis. The danger in adopting only secondary sources of information is that the authors of history books may not necessarily have read primary sources with a wetland or river emphasis, and some issues may therefore have been omitted from texts despite having been emphasised in original documents.

Archival information is potentially very valuable since it chronicles governmental decision-making processes to do with the utilisation of water. However like "primary sources" mentioned above a search of archival material may be prohibitive with respect to the time it can consume, and again syntheses of government activity may provide a useful alternative, like Le Page's (1986) *"Building a State"*.

Listings of sites by the National Trust and Heritage agencies represent the legitimisation of claims for cultural significance of sites and were regarded for the purposes of this work as being essential to successfully achieving its aims given the ease at which they could be accessed. Listings include early European places of habitation, construction and routes of travel.

As discussed above, the significance given to sites by a local community can be quite different at a national or international perspective, but should not necessarily be regarded as more or less important. The local community, particularly in a rural setting, might be said to retain European historical attitudes to wetlands and rivers, and might often maintain close to the original associations. For any one site of cultural importance, the local community shares the dual roles of raising the profile of the site, as well as acting as its caretakers. In the absence of detailed local knowledge in every region, and without having the opportunity to validate each claim, the input of the local community was considered vital in this study. The local community provided the context for this project, and every attempt was made to access knowledge held within local communities. For the purposes of this report it was assumed that the local community knowledge could be accessed through local amateur and professional historians, Local Governments, and Land Conservation District Committees.

2.2 Rationale for Methodology and the Dichotomous Approach

In order to accomplish the aim of the project, as stated in Section 1.1, it was decided to target local sources of information, secondary sources of historical knowledge, and listings of sites and places, as outlined above. It was recognised that such an approach would best cover sites which were already known, but that

there would be an element of incompleteness which would be difficult to overcome. In addition, some aspects of European associations with wetlands and rivers did not lend themselves to providing lists of sites. For instance, it might be better to recognise patterns of early settlement with respect to wetlands and rivers, rather than simply list the sites of early homesteads or water developments. Another example might be an early explorer's route from the mouth of a river to somewhere near its headwaters, where the route taken might be more important than the number of wetlands and rivers encountered.

Accordingly, a dichotomous approach to the aim is given here. It enables the user of this report, in asking the question of part of the study region "Does area X have an importance from the viewpoint of European history?", to seek:

- the records or lists of sites which are already known to have some importance in the area; and
- patterns of European associations with wetlands and rivers, from which additional information could be gained.

The latter approach is here termed a "systematic approach" to understanding the European historical associations with wetlands and rivers. The user of this report is therefore encouraged to ask the following supplementary questions:

- Do the locations of early settlers correspond to sites of significance from a Nyungar perspective?
- Where were early land grants preferentially located? and
- Does the area in question fall along a significant travel route?

Some assistance in answering these questions is given in Chapter 3, most of which has been gleaned from historical texts, and data collected, as outlined below.

2.3 Methodology: Data Acquisition and Synthesis

The study commenced in May 1995 and during the first phase of the study a priority list of contact persons and groups was drawn up. In late May 1995 a standard letter, a "questionnaire", and a map of the relevant local area/shire were mailed to all identified contacts seeking data. Prior to the package a phone call was made to the individual or organisationinvolved seeking permission for their involvement, and offering a verbal explanation of the study. An example of the package sent out is given in Appendix A.

Key features of the questionnaire included:

- a request for information, locations and dates relating to the following nine areas of wetland and river associations:
  - First European Exploration
  - Early Settlement and Farming Development
  - Water Supply Development: Domestic
  - Water Supply Development: Irrigation
  - Land Drainage, Wetlands etc.
  - Reservation of Waterways
  - Anecdotal Records of Water Quality
  - Timber Industry Development and Water Utilisation
  - Historical Utilisation of Aquatic Flora and Fauna
- a request for publications or unpublished sources of information which we could consult for further information.
- a request to supply any such information by a designated deadline.

Packages including the data sheets were sent to:

- twenty six shire council representatives, local historians, historical societies, local history museums and professional historians;
- twenty-eight departments of Agriculture Landcare project officers, advisers and Land Conservation District Committees (LCDCs);
- Blackwood Catchment Coordinating Committee
- Water Authority regional and district offices.

A high proportion of identified contacts (n=30) responded to our request for information. Where respondents recommended readings or other sources of information these were examined and information extracted for the database by categorising it according to the list above. These data were added to other data (like listings from Heritage agencies and the National Trust). In this way a comprehensive database for each shire was assembled, and from this a summary, and a list of sites were prepared. Where possible these sites were plotted onto 1:100 000 topographic series maps, and then transposed onto GIS maps held by the Water Authority.

Shire summaries, lists of sites, and maps were then sent to the respective shire for comment as before: the information was sent out by mail, was followed up by 'phone call, and shires were requested to check the material for detail and then provide comment by a set date.

A list of shire contacts and other respondents is given in Appendix B.

3.0 SYSTEMATIC APPROACH

3.1 Relationship to Nyungar Associations

As noted in Sections 1.5 and 1.6 the presence of water in summer and autumn largely dictated the early exploration routes, travel routes and settlement patterns of Europeans. This was particularly so for inland areas and those of the upper and middle part of the Blackwood catchment but elsewhere as well, where the availability of water was (and still is) highly seasonal in its occurrence. Water in summer is likely to have been critical for Aborigines as well.

Bignell (1981: 7), in her historical account of the Shire of Katanning, wrote that:

"Water was the life blood of the Aborigines and they held it in the greatest respect. They spoke of belonging to watering points, never of owning them. They were fully familiar with every winding creek or isolated soakage spot within their territory. The slightest depression which held water in a dry year was guarded by them, in particular the gnamma or rock holes, a number of which are to be found in the granite areas of the Katanning Shire. Wherever possible the Aborigines enlarged them, making sure to keep them narrower at the top to lessen evaporation.

In historical accounts (for instance Pustkuchen 1981), constant reference is made to the fact that Aborigines showed the first Europeans the location of water supplies. Writing of an early encounter, Harris states

"These mutual civilities put them in good humour, and gave them confidence in us, and they led us about a couple of miles NNW through a splendid country, to a permanent fresh water spring." (Harris 1837).

Indeed early explorers appeared to feel no compulsion to refrain from appropriating such valuable parts of the landscape

"This spring would be an excellent place for a permanent station, being in the centre of an extensive and rich district, and the water is good."(Harris 1837).

This appropriation resulted in:

"(n)ew homesteads ... built alongside permanent fresh water, checking the Aborigines traditional movement across the open range and denying them access to the best waterholes." (Green, 1981, p.88, referring of the York, Northam and Beverley districts).

These permanent sources of fresh water may well have become ephemeral and saline since.

Pools in otherwise dry water courses were used by early Europeans for drinking water, washing (bathing and clothes), washing sheep and watering all stock, camping *en route*, and so on.

Thus, it is argued that important water sites (soaks, springs and pools in water courses, and some freshwater lakes) are important historical sites from a European perspective, but that they may be also significant Aboriginal sites, satisfying criteria for cultural significance for Nyungar peoples. In fact the European recollections about these sites might be important ethnographic data for Aboriginal heritage studies.

3.2 Preferential Land Grants and Land Acquisition

The first rural land grants for the Swan River Colony were made in 1829 and were granted on the basis of a land allocation depending on the amount of the applicant's assets (Statham 1981). These assets had to be deemed applicable to land-use, and grants were initially occupation only, until "improvement" (by the expenditure of a sum of money per acre for cultivation, fences etc.) was demonstrated whereby Title was transferred (Statham 1981). Most of the initial land grants were made in the region of the Swan River Colony and King Georges Colony, but large grants were made elsewhere as well, and of relevance to the study region these areas were around Augusta, and in the Williams area. In 1832 the system of granting land was abandoned, after which land was to be sold not granted (De Garis 1981). The so-called Glenelg regulations of 1837 allowed any settlers granted land to surrender the whole or part of their original grant in exchange for remission certificates which could be used to purchase Crown land elsewhere (Statham 1981). These early land grants and purchases were always related to rivers and wetlands of some description, as described earlier in this report.

Another refinement was the classification of land in the 1850s as either Class A or Class B depending on its proximity to permanent water or existing settlement (which itself was dictated by the availability of water). Under this scheme, Class A land was defined as any

land within three miles of an existing settlement, transport route or river course.

Early utilisation of land, and land tenure arrangements, were specified within administrative terms which clearly showed an association with wetlands. A recognition of patterns of early land acquisition and settlement, is likely to indicate areas where an historical association between Europeans and rivers and wetlands has developed. Accordingly, an examination of early maps of areas in the study region, particularly if they include details of land ownership before say 1870, can demonstrate the likelihood for the occurrence of culturally significant sites.

3.3 Travel Routes

The location of early land grants or purchases initially dictated the location of transport routes, which themselves made further areas in between available for settlement.

These travel routes are significant for water supply considerations because they usually followed routes which included the availability of fresh water, and they brought Europeans into contact with wetlands when crossings were made, resulting in fords, bridges and culverts. They frequently dictated settlement patterns, which means that they were crucial to the way water supplies developed. They also exemplify patterns of resource extraction like the sandalwood cutters tracks and the transportation of jarrah and karri logs by train. Significant historical sites will occur along these early routes, and they are significant in their own right.

Some of the routes are still in existence today, others have been well documented but in disrepair, and others have long since vanished and await documentation of their precise location.

River crossings are either important for events like flood damage, as meeting places, as locations which made access to country easy, or as examples of the early built environment. There are many examples of significant river crossings in the study area, such as the old Alexandra Bridge on the Blackwood River east of Karridale. It was originally completed in 1898 on the meander which sixty-seven years earlier was the site of "Adelphi", the Bussell's home on the banks of the river; the old bridge was washed away in the summer flood of 1982.

It is beyond the scope of this report to explicitly detail all crossings of all waterways, and all early routes of travel. Nevertheless, key travel routes have been listed below, and where possible their locations have been transcribed onto maps.

EARLY EXPLORATION AND SURVEYING ROUTES

Key exploration routes are considered here to be significant if they explored a substantial part of the study region in their undertaking, and/or occurred prior to or within the first thirty years of settlement. Some of the early explorations included:

- Stirling (1827) Geographe Bay coast
- Collie (1830) (north of Albany)
- Bannister (1831) - Swan River Colony to King Sound (via Walpole)
- Preston (1831) - Pt D'Entrecasteaux to Augusta
- Thomas Turner (1834) - Augusta to Blackwood River/Arthur River junction.
- J.S. Roe (1835) South of Williams (and his subsequent, numerous, surveying explorations)
- Hillman (1837) (Albany to Swan River by way of York)
- Forrest (1848, 1869, 1871)
- Thomas Muir (1850s) west of Lake Muir district
- Holland Track 1893 (Broomehill to Bayley's Rush, upper Blackwood Catchment in part)

STOCK ROUTES

Ellenbrook - Donnelly run; Bussell's (described in part in Terry (1978, pp. 60-62)

Wheatley Coast Road (Muir family)

Deeside Road (Muir family)

SANDALWOOD CUTTERS, MALLET BARK STRIPPERS TRACKS

These are likely to have been widespread in inland parts of the study region in the period 1835-1850, and to a large extent have not been documented.

EARLY ROADS, TELEGRAPH LINES, AND FENCE LINES

Early roads included those for the connection of isolated settlements to the Colonies of Swan River and King Georges Sound. Under minimal public expenditure up until the early 1880s when railways were commenced (Appleyard 1981 p. 216), roads were not constructed on a widespread scale. Early routes included:

- Augusta - Vasse route (1833-1835)
- Sound Road (convict built in part at least) (1840s)
- Bunbury - Bridgetown - Round Swamp (1840s)
- Bunbury - Capel - Vasse route
- Vasse - Warren Road (convict built)

Significant roads or tracks in the study region included those which served as coach routes (for instance from Bunbury to Augusta, and from Bunbury to Bridgetown), those which serviced telegraph lines, or rabbit proof fences.

RAILWAY LINES

Railway routes are historically important for the reasons outlined above, but also for the documentation of patterns of salinisation. As noted above railway developments were reliant on the supply of fresh water for steam engines, and early concerns over salinisation were raised when railway dams became saline. Maps of railway development exist and should be consulted in further investigations (ie. Manford cited in Glynn. S. 1975).

Railways in the study region between 1870-1900:

- First railway in WA Lockeville - Busselton - Yokenup (1871)
- Timber railway: Karridale to Hamelin Bay, Kudardup, Augusta
- Timber railway: Bunbury - Manjimup - Pemberton - Northcliffe
- Great Southern Railway (completed 1889)
- Perth - Bunbury - Busselton - Margaret River

4.0 LOCATION BASED DATA - SHIRE SUMMARIES

4.1 Introduction

In order to write a short history of each shire, it was necessary to collect information from a number of sources. This information was compiled in a data base using categories specified by the bounds of the study and can be used as a resource for ascertaining the importance of each water sourcedue to their European associations.

The first source contacted for each shire was the Shire Clerk who provided information on local history publications and groups, and local historians. Information was collected both by telephone and through questionnaire based responses returned by mail. Detailed information on the methodology relating to data aquisition is given in Section 2 of this report.

Each summary has been compiled using the same approach:

- information provided by the Western Australian Municipal Directory on current size, population, towns, significant historical attractions and industry.
- geographic and catchment location
- exploration
- early settlement
- the significant waterways
- any development related to water
- related social development in relation to current industry and economic activity.

In addition to the summary, a map and a list of sites recognised in this report are provided. Tables of sites include, where possible, a code which refers to the location of the site on the shire map.

In some shires, the Blackwood Catchment only occupies a percentage of the total area. As specific information on the Catchment boundary was not always accessible, and may not necessarily be relevant to Shire boundaries, and sources of water discussed have been broader than the Catchment itself. This information may be duplicated by other studies of the same shire.

Every attempt has been made to provide significant information in the Shire Summaries and tables without including an excessive amount of detail. The information provided may be verified from the relevant shire data in Appendix C.

4.2.1 Augusta Margaret River

The Shire of Augusta-Margaret River is situated in the south west corner of Western Australia. The Shire extends over 2,370 square kilometres and major towns whithin the shire include Augusta, Margaret River, Cowaramup, Gracetown, Prevelly Park, Witchcliffe, Karridale and Rosa Brook. The town of Augusta was established on the banks of the Blackwood River where it flows into the Southern Ocean.

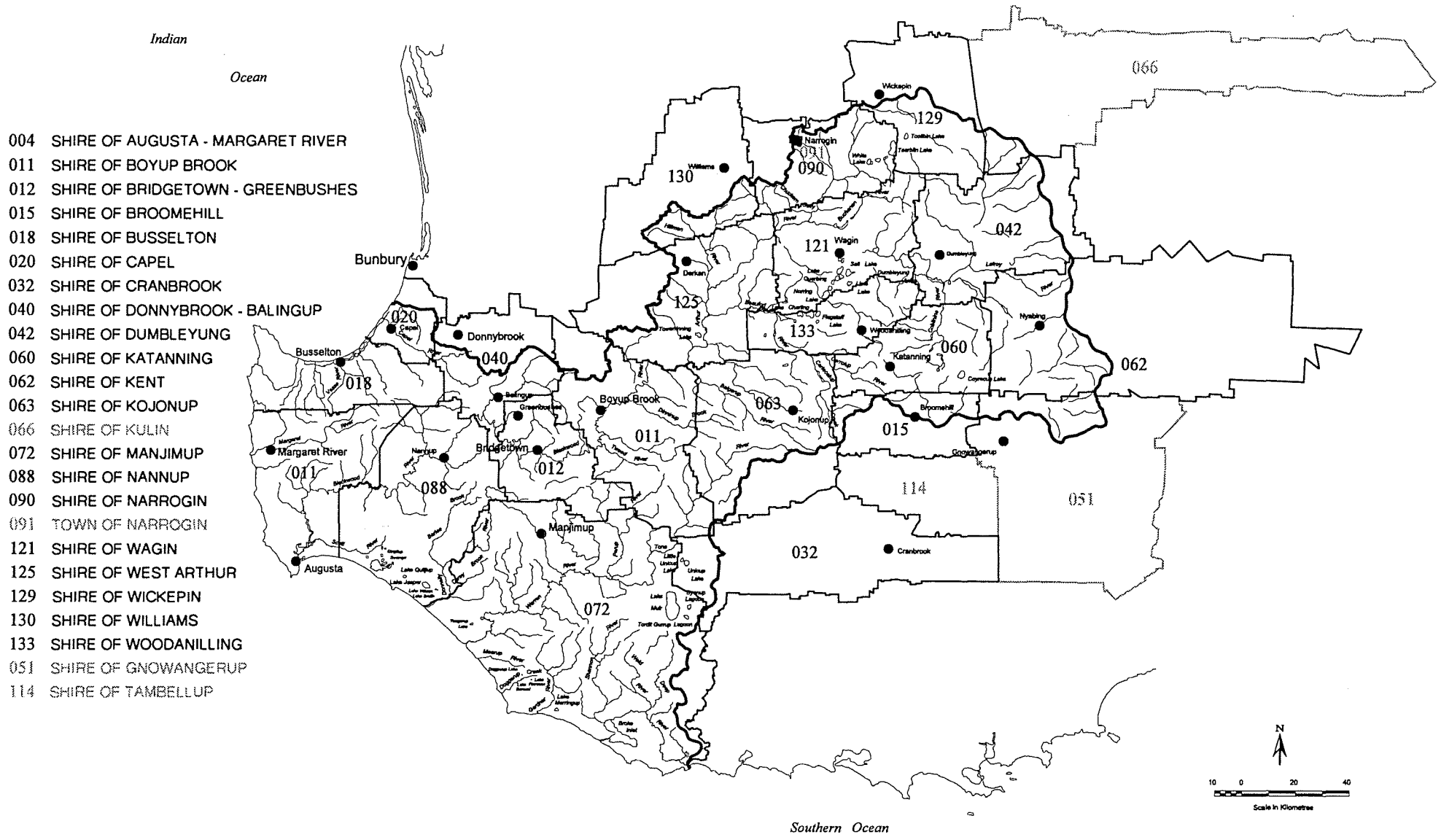
This area was amongst the first to be explored by Europeans in the Dutch ship "Leeuwin" in 1622, possibly landing in Flinders Bay to search for water. In the period of 1772 to 1826 many French explorers visited Western Australia omprising Kellam, Ludlow and Welburn walking from and named Hamelin Bay near Augusta. Exploration of the Shire started in this area with the group c Augusta to Perth in 1831 and Preston walking forty kilometres to Augusta along the coast.

The homesteads of the Molloys, Turners and Bussels on the Blackwood River were first established in the 1830's but farming was largely unsuccessful due to poor soils, huge trees and a lack of labour and tools.

M.C. Davies, a timber merchant, acquired the rights to take timber from the forests of the area in 1882 and based the enterprise at Karridale with outports at Hamelin Bay and Flinders Bay. Steam mills such as that used at Karridale, Boranup and Jarrahdene, were built on the waterways and used for milling timber. Transport was by steam train along rails that followed Aboriginal paths that hugged the coast and used soaks and springs for water supply. In 1924 the state rail system was extended to Flinders Bay.

With the increase in shipping along the dangerous coastline and the loss of numerous ships, the Cape Leeuwin Lighthouse with accompanying water wheel and hydraulic ram was built in 1895. In 1896, gold was discovered in Boodjidup Brook and a water supply was developed to service this find.

As the land was cleared, the farmers established dairies and grew vegetables to supply the timber millers and shipping enterprises. The significant homesteads of "Ellensbrook" (established in 1855) and "Wallcliffe" (established in 1865) are testimony today of the farming



Busselton - Walpole Regional Boundary

Location Plan Busselton - Walpole Region

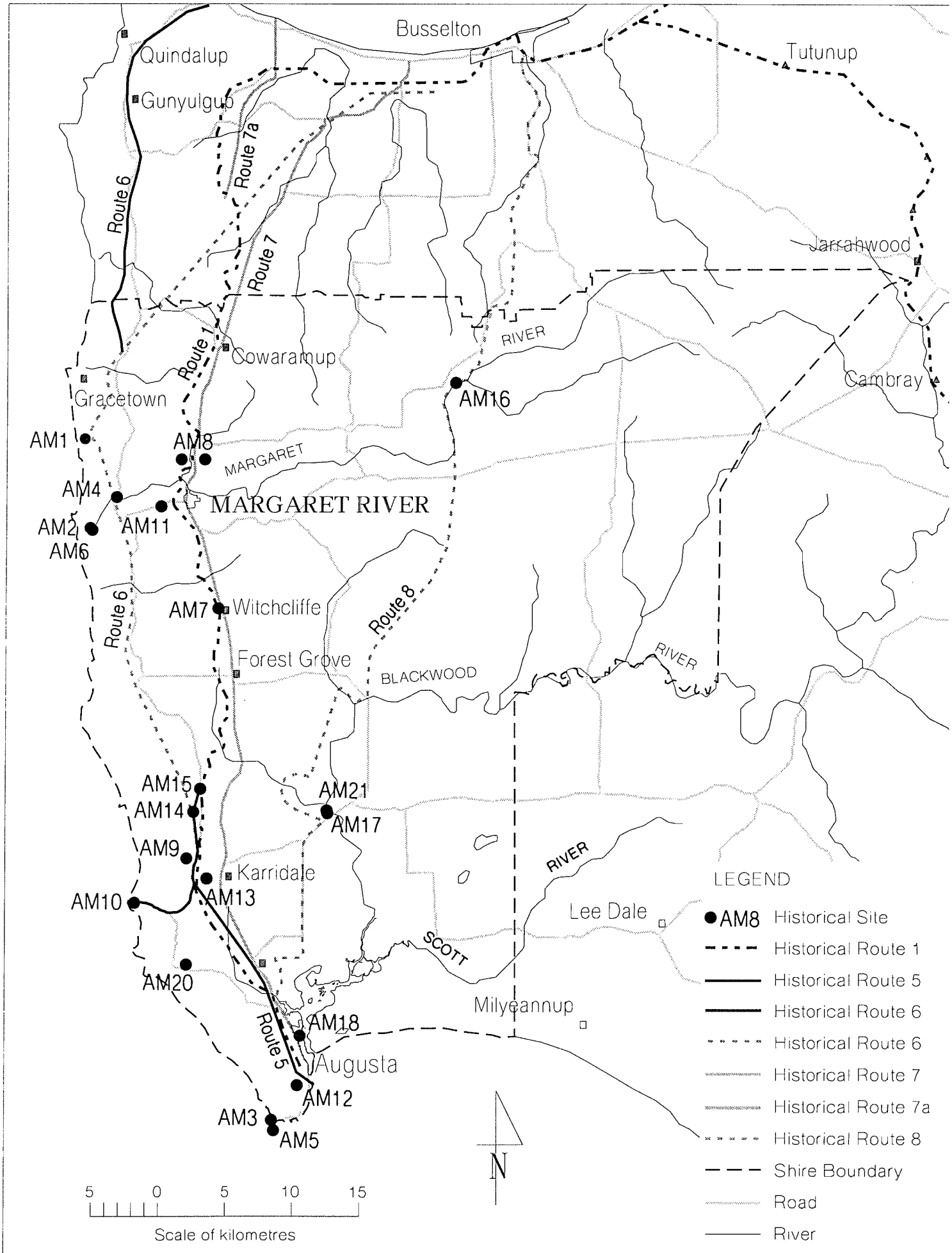
activity of that period showing by their proximity to the waterways their dependence on this resource.

As with most settlement in Western Australia, water was the primary reason for choice of settlement site. In the Shire of Augusta-Margaret River, the waterways significant in early exploration and settlement are the Blackwood River, the Vasse River, Scott River, Turner's Creek and include the creeks, springs and soaks in the vicinity of Hamelin and Flinders Bay.

Today, the farming practice of the region includes dairying, beef and sheep production, agroforestry, aquaculture, viticulture and horticulture. Fishing, the logging of native forests and plantation forestry operate alongside a thriving cottage industry related to tourism which provides a significant income to the population.

AUGUSTA-MARGARET RIVER	
Ellensbrook Farmhouse, Dam and Waterfall: Sussex Loc 4694	AM 1
Historic route: Railway extended to Flinders Bay	Route 1
"Wallcliffe" Homestead: Sussex Loc 97	AM 2
Historic route: track between Busselton to Augusta and Karridale (now Caves Road)	Route 2
Water Wheel: Cape Leeuwin, Sussex, Loc 4195	AM 3
"Burnside Bridge" (Margaret River)	AM 4
"Old Bridge Home", on Caves Rd: (overnight stop built by Alfred Bussell)	AM 4
Cape Leeuwin Lighthouse, Cottages and swamp (hydraulic ram): Sussex Loc 4195	AM 5
"Coodardup": first Davies mill: historic routes to Hamelin & Flinders Bays	Route 5
Historic route: Hamelin to Boranup Railway	Route 5
"Wainilyinup": cave at E end of Cliff at Wallcliffe on Margaret River	AM 6
Old track followed Aboriginal paths and hugged the coast ("Karridale Road")	Route 6
Darnell's Store, Redgate Rd, Witchcliffe	AM 7
Historic route: Coach Road (now Bussell Hwy) and Telegraph Rd	Route 7
Pine plantation: first pines planted 3 kms N of Margaret River	AM 8
Historic journey: Bussells from Augusta to Vasse	Route 8
Boranup Sand Patch (Marram grass planted by Davies)	AM 9
Hamelin Bay Jetty	AM 10
Sussex Loc: 2177	AM 10
"Basildene" Farmhouse: Lot 100	AM 11
Barrack Point, Flinders Bay	AM 12
Karridale: • Old Mill Site • (MC Davies forestry industry & assoc. water supply) • Karridale Race Course • "Big House"	AM 13
Old Mill Site: Karridale (Natural listing)	AM 13
Boranup Mill	AM 14
Jarrahdene Mill (North of Boranup)	AM 15
Historic route: Bussell forded near rapids (15 yards across)	AM 16
Alexandra Bridge: Sussex Loc 4547 (One Teacher Schoolhouse & bridge)	AM 17
Leeuwin Spring	AM 18
Scott River	AM 20
"Deepdene"	AM 20
Old Karridale Davis Park: Sussex Loc 4917	AM 20
"Adelphi"	AM 21
Old Alexandra Bridge	AM 21

AUGUSTA-MARGARET RIVER (cont.)	
"Datchet": (near Molloy home)	
"Fairyring"	
"Glenbourne" Homestead: Locs 354 & 886 & 673	
"Karridale Road" (old track followed Aboriginal paths and hugges the coast	
"Saddleton"	
"Turner Park": (site of Turner's prefab home in Augusta)	
"Turnwood": (Thomas Turner's home on the Blackwood River	
"Woodyche"	
Augusta Townsite, right bank of the Blackwood River	
Boodjidup Brook	
Flinder's Bay Settlement	
Injidup: "Georgette" crew landed	
Layman property near Cape Hamelin	
Leeuwin Spring	
Molloy Island	
Turner's Creek	
Margaret River: old town swimming hole	
Margaret River: old Railway Bridge (1923)	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF AUGUSTA-MARGARET RIVER

4.2.2 Boyup Brook

The Shire of Boyup Brook is situated in the Transitional Rainfall Zone of between three hundred and eight hundred mm of rain annually. The Shire extends over 2,838 square kilometres with 85% falling into the Blackwood Catchment. The towns of the shire include Boyup Brook, Wilga, Mayanup, Dinninup and Kulikup.

The town of Boyup Brook derived its name from the Aboriginal word "Booyup" which was the name given to a pool of water four miles from the present town.

The first explorers were Thomas Turner and his party searching for the headwaters of the Blackwood River from the settlement at Augusta in 1834. More than ten years later, Augustus Gregory passed through the area on his journey tracing the river from the junction of the Arthur and Beaufort Rivers to its mouth. It was on this exploration that the Gregory Tree, mid-way between the towns of Boyup Brook and Dinninup, on the Blackwood River, was marked.

During the time the first settlers to the district were arriving, Robert Austin conducted the first survey, in 1859.

The first settler was John Hassell in the early 1850s. Commander Scott settled on 12 000 acres in Norlup in 1854 and grew wheat, cattle and sheep. Soon after this, in 1861, James Lee Steere and J.H. Monger settled on well-watered land along the course of the Blackwood River.

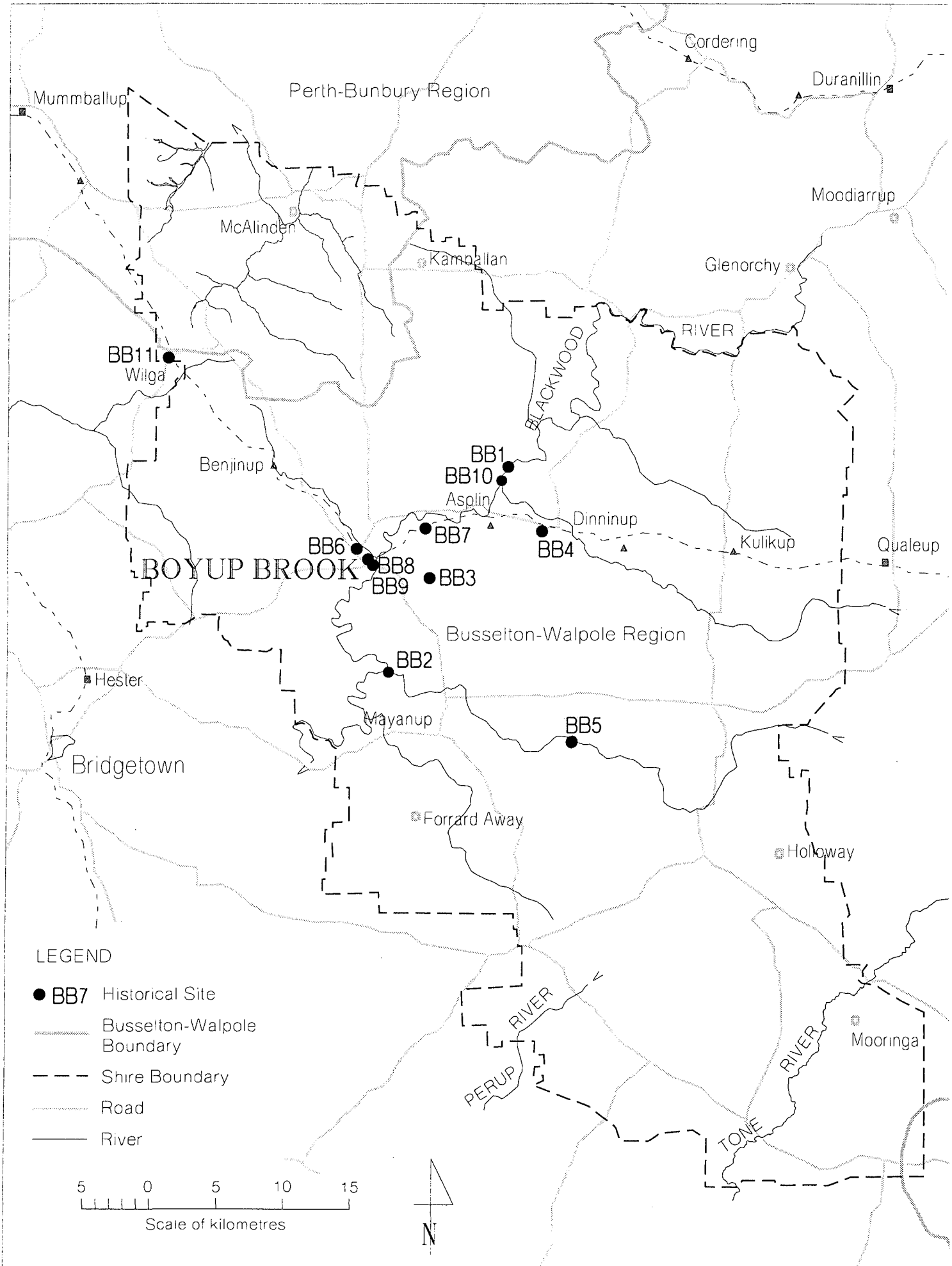
During World War II, a flax mill was built by the government on the banks of the Blackwood River in Boyup Brook. This mill employed about 400 people, predominantly "army girls" and war refugees. Flax was grown locally and water from the river was used in the extraction process. The mill was closed down in 1965 when economic and supply of raw materials became prohibitive.

A timber mill processing logs from native forests operated on steam in Wilga until 1958 when it changed over to diesel.

Local sources of information indicate that the Blackwood River was generally clear and fresh until the floods of 1955 when the deterioration due to silt and salt was rapid. Perch started disappearing from the river in 1965, Marron remained until around 1980 and Cobbler may still be caught by anglers.

From the initial early European settlement, the farming practice of sheep, cattle and grain and logging the logging of native forests, has diversified to include agroforestry, in an effort to combat land degradation, and pig farming. The early interest in water expressed by explorers and settlers has changed only in that it is now expressed as a concern for the declining water quality. It still holds a place of importance and necessity in this rural community.

BOYUP BROOK	
"Condinup"	BB 1
Jayes Bridge	BB 2
Town Dam	BB 3
Irrigation dam, Apple Orchard	BB 4
"Norlup": Lot 199, Nelson Loc 39 (stock water, house and School Room)	BB 5
Railway Dam	BB 6
"Daneholme" on the Blackwood River	BB 7
Boyup Brook Tourist Centre, Abel St, Boyup Brook	BB 8
The Flax Mill	BB 9
The Gregory Tree	BB 10
Wilga Sawmill	BB 11
"Booyup" Pool (four miles from present town site)	
"Rose Cottage"	
First settler: John Hassell's property	
Ritson Property	
Sheep Wash, on Blackwood River	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS
IN THE SHIRE OF BOYUP BROOK

4.2.3 Bridgetown-Greenbushes

The Bridgetown-Greenbushes Shire is located geographically in the centre of the south west corner of Western Australia. It covers 1,691 square kilometres and lies at the edge of the high rainfall zone in steeply incised country cut with numerous creeks and the Blackwood River. The towns or regions of the Shire include Bridgetwon, North Greenbushes, Greenbushes, Yornup, Hester, Catterick and Winnejup.

The first European explorer to travel through the Bridgetown area was Thomas Turner who travelled up the Blackwood River from Augusta in 1834 to its junction with the Arthur River. His journey along well established Aboriginal tracks was followed by Bland, Irwin and Singleton travelling from Albany to Busselton in 1842. The first surveyor to travel and survey the area was Augustus Gregory between 1845 and 1852.

Convicts were brought into the area to work on roads and bridges in the 1850s and the first settlers in the Blackwood Valley were John Blechynden in 1857 at Bridgedale on the banks of the Blackwood River in Bridgetown, and Edward Hester who settled on a property next to the Hester Brook soon after. Hester opened the first steam-powered flour mill in the area servicing other grain producers.

John Allnutt and his family established a farm at Nelson Grange Homestead in 1865 on the banks of a permanent spring where potatoes, peaches, apples, gooseberries and wheat were grown, and pigs were produced. Allnutt's recommendations attracted others to the area and soon a number of settlers were farming in the Shire.

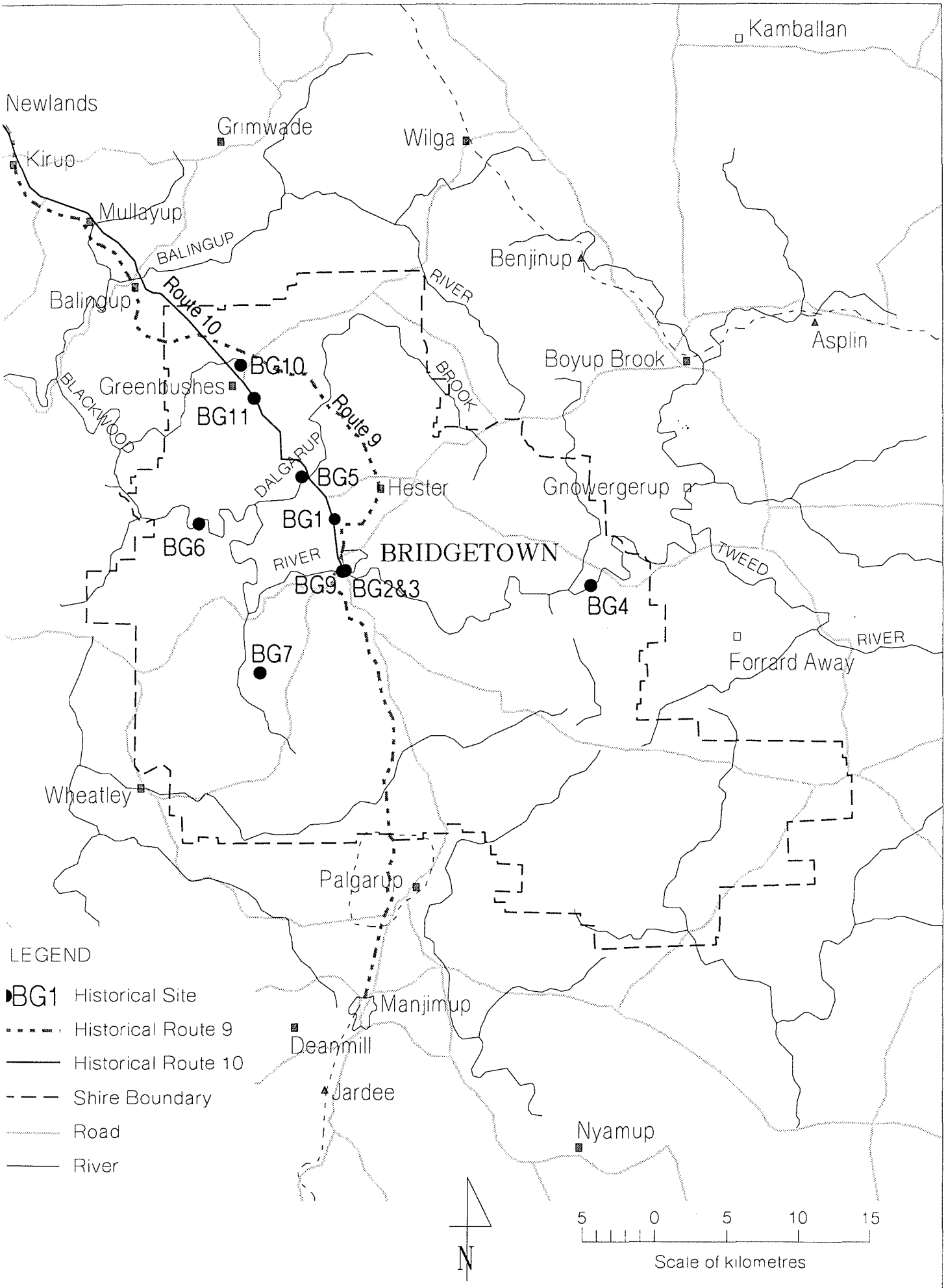
Tin was discovered near Greenbushes in 1888 and brought to the Shire an increase in population of 2,000 by 1913. At about the same time as tin was discovered so was the value of the timber in the area. A concession was granted to DE Browne in the area around Greenbushes with two steam mills operating to process the timber with another, Scotts Steam Mill, operating in Bridgetown in 1895.

Apple orchards and dairy farms were supplying the Goldfields towns with the convenience of a rail link from Bunbury established in 1898. Maranup Ford, established on the Blackwood River in 1898 was the mustering point on a large cattle run which used well established routes, camping at watering points, to drove to coastal summer grazing leases.

Fruit production and other intensive horticulture was a main stay for the Bridgetown area until salinity levels in the Blackwood River prevented irrigation in the 1950s. The first records for salinity testing were from the Blackwood River in 1904 and the first pine plantations were planted by the unemployed at Grimwade in 1933. Currently, the main industries operating in the area are mining, logging of native forests and plantation forestry and the farming practice is in sheep, beef, grains and fruit. Tourism and a growing viticulture practice are bringing a diversity to agricultural practice and agroforestry is being established to combat land degradation in the Shire.

BRIDGETOWN-GREENBUSHES	
"Trotts Cottage" SW Highway	BG 1
"Ford House", Carey St, Bridgetown	BG 2
"Bridgedale", Blechynden's house, SW Highway, Bridgtown	BG 3
Winnijup	BG 4
"Blackwood Park", Hester's property and mill on Hester Brook	BG 5
"Maranup Ford" on Blackwood River	BG 6
"Nelson Grange" Homestead, Allnutt's property	BG 7
Bridge over the Blackwood River in Bridgetown	BG 9
Historic routes: Railway line and water supply	Route 9
Steam mills N of Greenbushes	BG 10
Historic route: Balingup-Bridgetown Coach Route	Route 10
Greenbushes Well	BG 11
"Bellavista"	
Fruit juicing plant	

BRIDGETOWN-GREENBUSHES (cont.)	
Historic routes: from Maranup Ford to coastal summer grazing on coast	
James G. Lee Steere's property, E of Blechynden along Blackwood River	
Scotts Steam Mill: sawmilling in Bridgetown	
Site of tin discovery in Greenbushes	
Wilgarrup	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF BRIDGETOWN-GREENBUSHERS

4.2.4 Broomehill

This Shire falls into the far eastern corner of the Blackwood Catchment and only 20 % of the shire's 1,376 square kilometres fall within this study area. The rainfall is low and the only town is Broomehill.

Roe and Stirling, on their expedition to King Georges Sound in 1835, stopped in this area using a number of creeks and wells for water supply. These included the Martinup Creek, Pallinup River and Ettakup Pool.

The first block was surveyed by Augustus Gregory at Ettakup for John McKail in 1852. This ten acre block, Hay Location 1 was on the south east corner of Eticup Pool. A number of settlers joined including kangaroo hunters and a number of other families up until 1868.

The town of Eticup, started declining when the railway line was connected to Broomehill which then developed as a centre for this area. Land was taken up here based on the presence of good water supply, often in the form of "native soaks", which were further developed by digging out and placing windmills on them.

This area was also a significant supply of mallet bark and sandalwood, and it has been reported that up to one thousand men searched the bush around the township in the early 1900s for these resources.

They were dependent, often, on supplies of freshwater from pools, springs and soaks in the area.

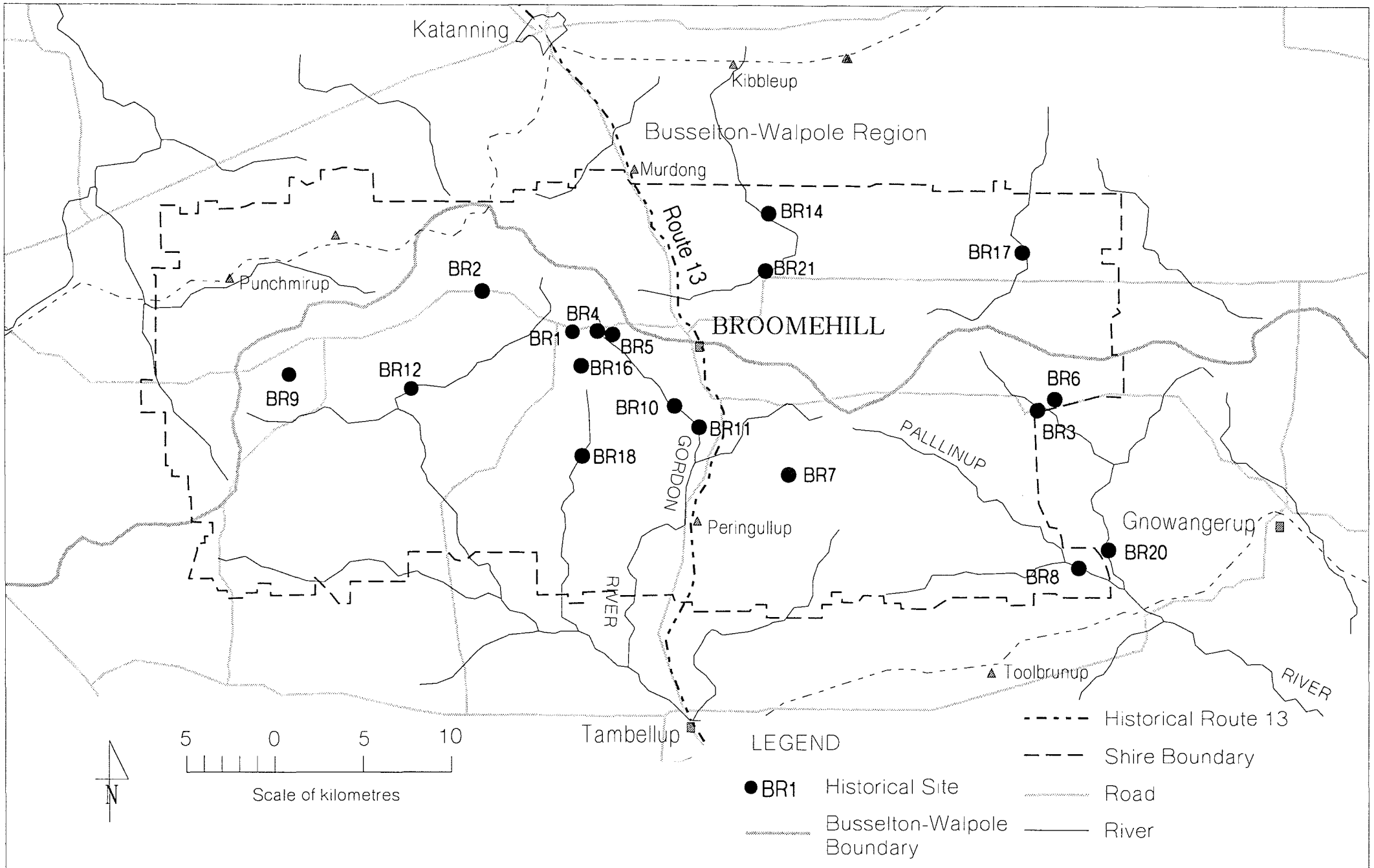
The Goldrush prompted the explorer, John Holland, to search for a direct routes to Gnarlbine Rock and the Goldfields. He traced a number of springs and waterholes on his journey in 1893.

Detailed descriptions of sheep farming through the diaries of Thomas Norrish from his settlement in the 1860s describe the use of wash pools prior to shearing and for dipping. Watering sheep necessitated moving sheep from place to place as the supplies became depleted as many supplies dried up in summer. Detailed listings of these supplies are mentioned in a response from Miss S. MacDonald of Broomehill and further in the historical writings of Merle Bignell. Many wells, tanks and dams are still in evidence in the area. The descriptions of their construction provides insight into the management of water supplies by early settlers.

Though Broomehill has had a variety of horticultural enterprises in the past, including a winery, the main agricultural income is derived from sheep, cattle and grains now.

BROOMEHILL	
Eticup Township	BR 1
"Fairfield"/ Nannamillup: Kojonup Loc 43/44	BR 2
"Martinup": Kojonup Loc 7743	BR 3
Treasure's Wash Pool at Martinup	BR 3
"Sunnyside"	BR 4
Hay Loc 1, SE corner of Eticup Pool (10 acre block)	BR 5
"Native" well used by Roe and Stirling's expedition	BR 6
"Fermoy"	BR 7
Pallinup River used by Roe and Stirling's expedition	BR 8
Scamper Creek used by Roe's northbound expedition	BR 9
Ettakup used by Asst Surv Phelps	BR 10
Eatup: small pool	BR 10
Eticup Wash Pool	BR 11
Wadgegannup wash pool	BR 12
Historic Route	Route 13
Nymerup Pool	BR 14
"Nymerup" soaks	BR 14
"Goblup"	BR 16

BROOMEHILL (cont.)	
Yellanup Spring	BR 17
Peringillup Well	BR 18
Martinup Creek used by Roe and Stirling's expedition	BR 20
"Moulyerup"	BR 21
Moorelup Creek	
"Hayfield": Kojonup Loc 54	
"Roma" vinyards	
Coyrecup	
Kangaroo Spring	
Kuringup Spring	
Nampup	
Nowernelup	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF BROOMEHILL

4.2.5 Busselton

The Shire of Busselton is 1,454 square kilometres and includes a substantial coastline on the south west corner of Western Australia. The extensive coast drainage systems including the Wonnerup Estuary and the Vasse River have played an important part in the development of the Shire. The area includes the towns of Busselton, Dunsborough, Yallingup, Jarrahwood, Vasse and Carbunup.

The first explorers travelled along the coast by ship mapping the shoreline and like Vasse, who remained presumed lost from Baudin's expedition in 1801, left their names to mark the landscape. Others travelled and explored on foot, following Aboriginal paths in search of good grazing and water. The history of this Shire is closely related to that of the neighbouring Augusta-Margaret River Shire, sharing the same reasons for early settlement, and often the same families.

Captain Stirling visited the Geographe Bay area in 1827 and was followed soon after by the Bussell party in 1833 who found the open woodland, freshwater and abundance of cattle feed much to their liking.

The Bussell family played an important part in early farming history settling "Cattle Chosen" on the Vasse River in 1836. Wonnerup House was established in 1837 and "Fairlawn" built by the Molloys on the Vasse River in 1839.

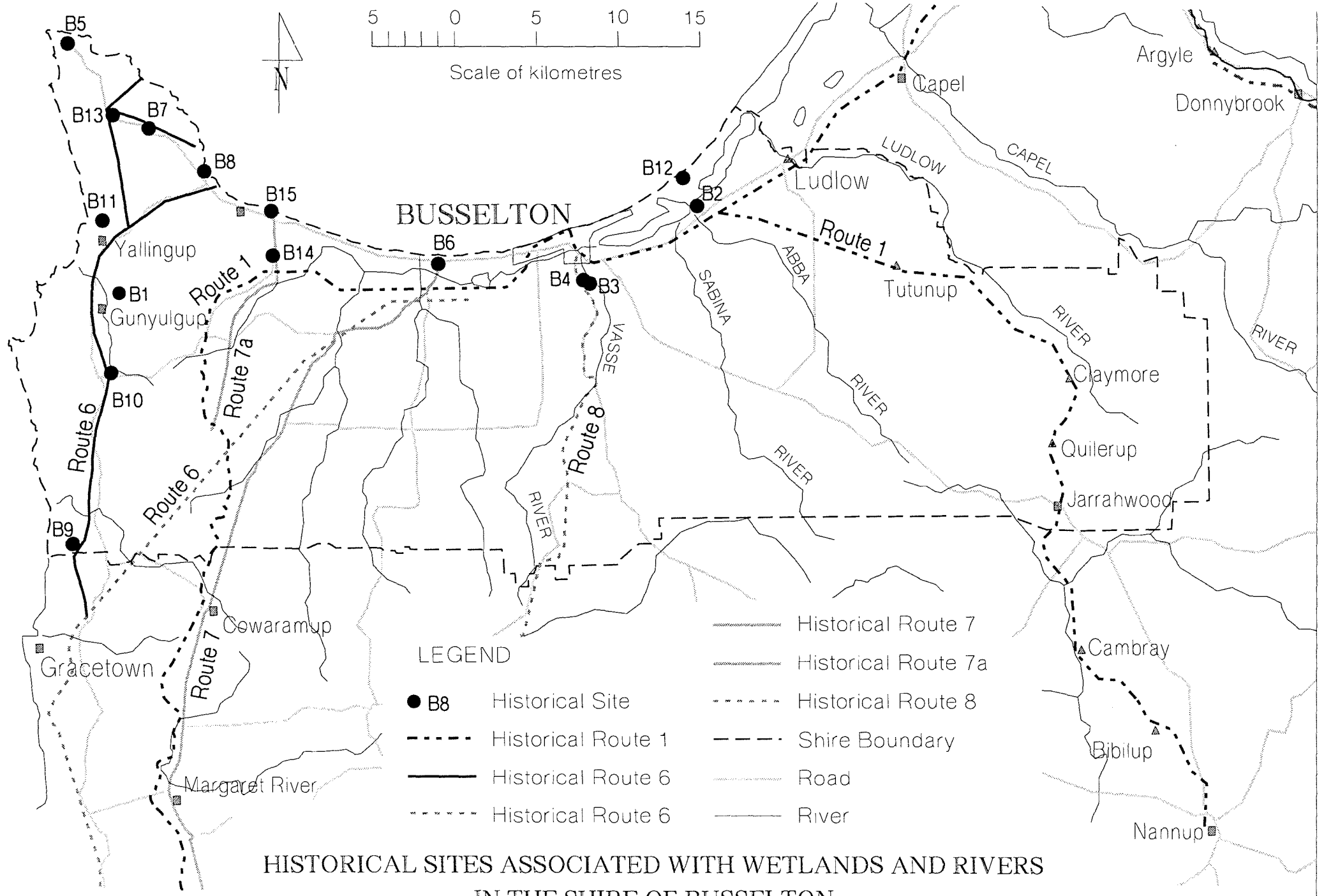
As the region was and still is frequently inundated, draining of the low lying arable land was necessary for production. Toby's Inlet was an example of a waterway significantly altered by the land management practices of the early European settlers.

Chapman's Mill on the Wonnerup serviced grain producers and the Busselton Jetty provided an outlet for millers shipping timber both interstate and overseas. Although the land was difficult to farm with poor soils and formidable forests, the population increased and land was much in demand. Significant drainage of inundated land has occurred in the twentieth century.

Farms are fewer now but larger, and "hobby farms" have resulted from the subdivision in recent years. Although dairies, beef and sheep are still farmed, viticulture is now a significant land use and fish and timber play an important role in the economy. Mining and light industry are developments that have expanded the income base of the region. The significant population of 17 500 serves to show the demand for land and the accompanying impact on waterways and resources of the area.

BUSSELTON	
"Millbrook" complex: Wildwood Rd, Yallingup (mill & limekiln)	B 1
Historic route: Railway to Busselton	Route 1
Wonnerup House and assoc. buildings	B 2
"Cattle Chosen": Vasse Highway	B 3
"Fairlawn": Government Rd	B 4
Cape Naturaliste Lighthouse and quarters	B 5
"Newtown House": Loc 24, Caves Rd	B 6
Historic Route: Caves Road/old tracks	Route 6
Meelup Spring	B 7
Historic route: Yelverton Tramway	Route 7a
Historic Route: Coach Road	Route 7
"Seymour's Cottages": Dunn Rd, Dunsborough	B 8
Historic Route: Augusta-Vasse Route	Route 8
Well: track junction (old coast tracks) near Biljedup	B 9
"Abbey Farm": Lot 1, Yallingup	B 10
Caves House: Loc 4421 Yallingup	B 11
"Lockeville": Wonnerup	B 12
"Marybrook": Bussell Highway	B 12

BUSSELTON (cont.)	
"Membenup House":	B 12
"The Island": Wonnerup	B 12
Chapman's Mill: Inlet Park, Wonnerup: Sussex Loc 2	B 12
"Inlet Park": Wonnerup	B 12
"Glenowen": at Cape Naturaliste	B 13
Yelverton's Mill: Quindalup	B 14
Yelverton Jetty	B 15
"Beachgrove": 51 Ford St	
"Bovell's Cottage": 13 Adelaide St, No. 13, Lot 2	
"Cape Farm": Cape Rd, Cape Naturaliste	
"Quindalup House": Quindalup	
"Sandilands": Ford Rd, Busselton	
"Seaview": Ludlow	
"Westbrook": off Bussell Hwy, Vasse	
"Wheetman's House"	
"Yarre Mia": 150 Bussell Hwy	
Barnard's Residence: Bussell Highway	
Butter factory: Peel Tce	
Cape Clairault	
Dunsborough Lakes	
Geographe Bay	
Old Cammilleri Home: 27 Georgette St Lot 24	
Old Vasse School: Kaloorup Rd, Vasse	
Toby's Inlet	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS
IN THE SHIRE OF BUSSELTON

4.2.6 Capel

The Shire of Capel is relatively small consisting of only 554 square kilometres and a population of nearly six thousand. Located on the northern limit of the western boundary of the study it has the towns of Capel, Boyanup and Gelorup within its jurisdiction. Although the Capel, Ludlow and Preston Rivers fall within the Shire, parts of the Shire are excluded from this study and fall into the Perth-Bunbury region.

Baudin's expedition of 1801 in the "Geographe" went ashore at Minninup and planted vegetables south of Capel River, while exploring the coastline. This expedition was followed in 1827 by Governor James Stirling in the Success who explored Geographe Bay looking for good water and soil for settlers. He (with the ship"s botanist) described the grasses and soil's water holding capacity in the vicinity of Paradise Creek. Other explorers travelling overland between Augusta to Bunbury made reports of the land. Although a strategy for classification for the release of land had been drawn up (ref: Nancross diaries, 1830's) it was only in 1843 that Europeans, under the protection of Military posts, settled the area.

The first settlers moved to areas with permanent water on or near the Capel, Ludlow and Preston Rivers. James Child settled at "Mininup" and Samuel Rose settled at "Dougup" in 1843. Later James McCourt settled on the Ludlow River and George Payne settled and built the Paynes water driven flour mill on the Capel River in 1851. This Mill became a focal point for a village which developed a general store and inn. A bridge was built over the Capel river for the transport of grain to the mill. A schooner built in the mill pond, was then pulled to Fatfield to begin a life of travel between Augusta and Geraldton.

In subsequent years as the demand for land in that area increased various strategies for release were devised. An example of this was a classification related to the quality and proximity to good water, "A" classification fell within three miles of a river, and "B" classification fell outside that boundary. This release only happened following the construction of a bridge over Layman's Gully to open up the Stirling Estate. Other land releases followed with the Group Settlement scheme of 1921 and soldier settlements after the second world war.

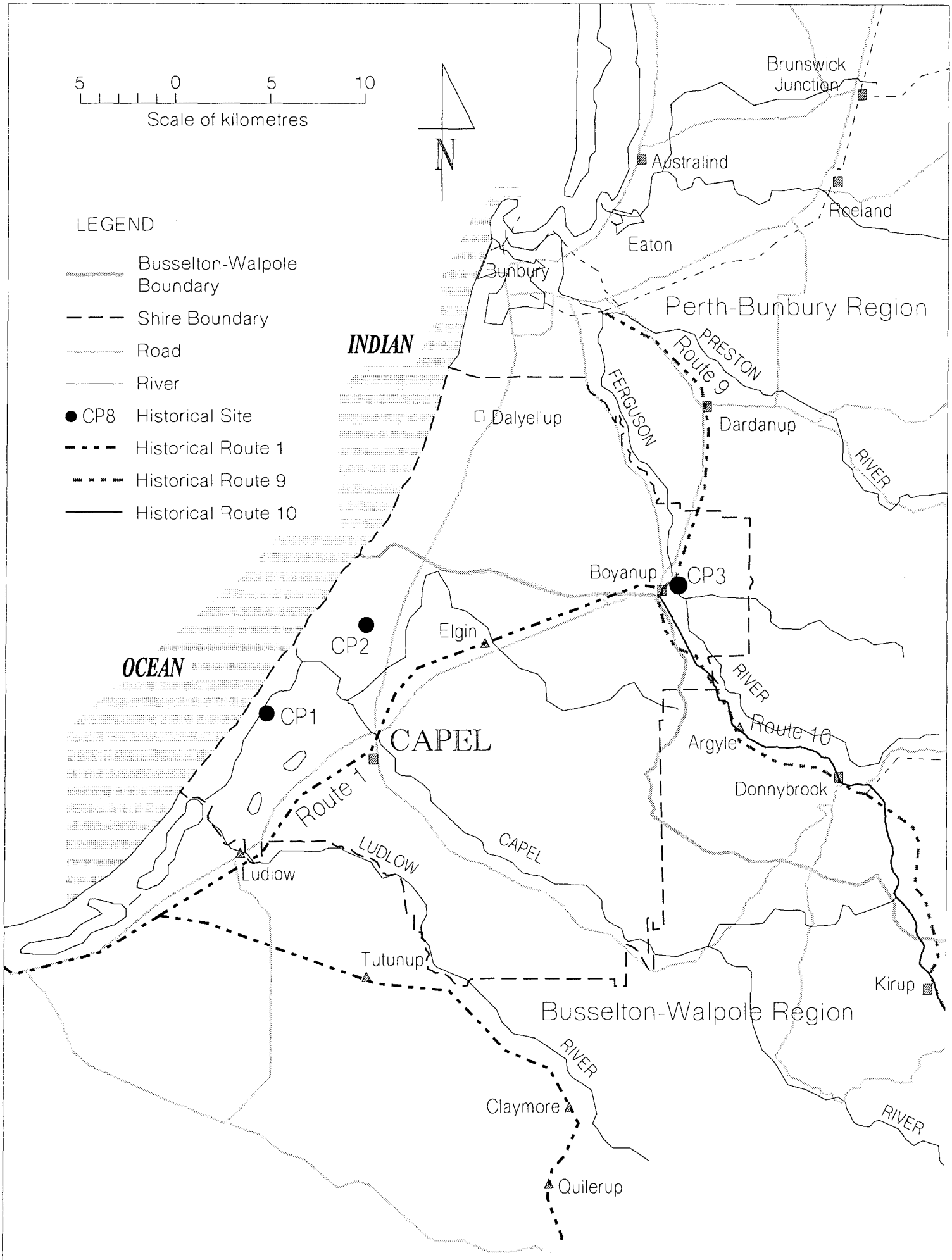
Cuts to drain wetlands through to the sea were put in by both Higgins and McCourt in the 1860's and 1870's. Drainage networks were established by subsequent farmers to drain and irrigate paddocks and the Stirling Drainage Board operated in the Shire from the early 1900's. These drainage systems and "cuts" are discussed at length by both settlers in the area and vistors including Lt Bunbury, Surveyor Roe, the Bussells, and Surveyor Omni (ref: Wellington Map 14). Issues related to the impact of sea water on the land, the effects of floods, conservation of soil and the maintenance of "cuts" constructed from timber. Floods in the 1860s, 1870s and 1917 are recorded to have caused farms, drainage systems and "cuts" to be washed away. In the 1940s, the use of dynamite to destroy the flood gates brought the sea water in.

Extensive modification of the waterways in the area by these activities have added to the impact of trout and red fin perch releases by farmers in the 1890s. to see a demise of the "sweetwater crayfish" (ie. marron) that were common in the area. Other uses of native flora and fauna included the use of fish, sea weed and guano along with cattle bones for land fertilisation.

Timber was milled at a number of mills in the area and either floated down rivers or railed to the ports to be loaded onto ships. These activities are still evident today although the farming activity has increased from beef, dairy and horticulture to include viticulture and aquaculture. Mineral sands and other mining activities play an important role in the shire and reflect changes in the use of waterways and resources.

CAPEL	
"Springfield Farm": Higgins cuts	CP 1
Historic route: Busselton-Boyanup Railway	Route 1
"Minninup", Mangles Rd, Lot 2, Capel	CP 2
Timber Mill on Preston River: Whistler family	CP 3
Historic Route: Coach route along S-W Hwy	Route 9

CAPEL (cont.)	
Historic Route: Boyanup-Manjimup Railway	Route 10
Baudin's vegetable patch south of the Capel River at Minninup	
Bessonnet's grant	
"Dougup"	
Gignadup Brook and Capel River: WJ Roberts & family properties	
Historic drainage works by Charles Berber of Elgin & Porter Matthers	
James Bessonnet & Thomas Hurst's properties on the Capel River	
James McCourt's property on the Ludlow River	
McCourt's cuts	
"Paringa"	
Payne's Mill: (pond, bridge, mill, general store & inn)	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF CAPEL

4.2.7 Cranbrook

The Shire of Cranbrook is located north west of the Stirling Ranges. It is 3,300 square kilometres in size. Only 15 % of the Shire falls within the study area of this report, in general, it is the western part of the shire that this summary will address. The towns of this shire are Cranbrook, Frankland and Tenterden. The shire has numerous fresh and salt lakes, and as this area lay along the route of early European explorers travelling between Albany and Perth it has had numerous historical visitors.

Dr T.B. Wilson travelled due north into this area from King George Sound in 1929, then looped around to the Frankland River area and back to the sound.

Alexander Collie from Albany searched for suitable water and land for farming in 1831 and 1832, and was successful in finding year-round water at Geekabee Hill. The Unicup area south west of Yeraminup was first settled by Europeans when Thomas Cockburn-Campbell took up "Bokerup" in 1880. This property with a homestead on the northern edge of a small peaty lake, was managed by Augusta Egerton Warburton. In 1947 it was purchased by the government. Part of it was set aside as a reserve and the remainder was divided into perpetual lease properties and conditional purchase blocks for returned servicemen.

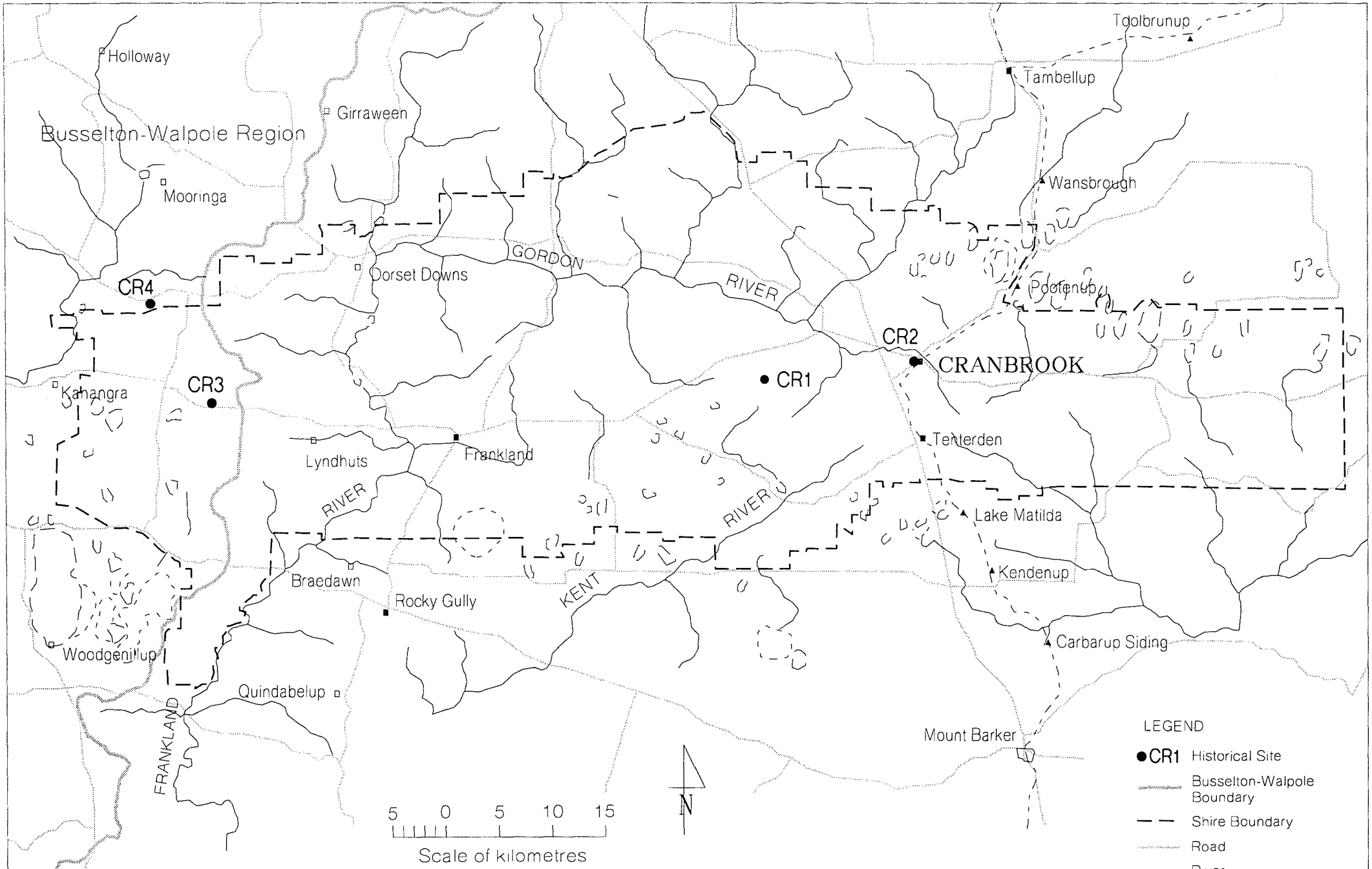
The first land releases were granted in the district around 1857 and many farms developed on river banks for the supply of both domestic and stock water. Farmers utilised summer pools in the rivers for washing sheep in preparation for shearing. Other properties depended on soaks and when wells were sunk between the two world wars, salinity proved a problem. Most of the Shire's area in the study region was only latterly (1960's) cleared and developed for pasture.

Until the 1950s water was plentiful with low salt content. Following World War II modern machinery was used for clearing for farming, grazing and cropping. Once the salinity levels increased marron and "perch" were no longer plentiful in the rivers and creeks. Recently a supply of peat for horticulture was secured near Red Lake and mined following drainage to remove excess water.

The railway between Albany and Perth depended on good supplies of fresh water to service steam trains stopping at stations in both Tenterden and Cranbrook.

Although the area has a relatively low rainfall, it serves to farm sheep, wool, cattle, pigs, grains, viticulture and horticulture. The timber industry also plays a part in the local economy.

CRANBROOK	
Geekabee Hill (Preston's property): Yerimunup Rd	CR 1
Timber Mill in Cranbrook	CR 2
"Bokerup": sheep washing in summer pools	CR 3
Cabbage Tree Mill	CR 4
"Glen Valley"	
"Kerrimunup"	
"Pootenup"	
"Silvergrass" or " "Ballochmyle" (western perimeter of townsite)	
"Wattle Mill" of "Lenham"	
"Yerimininup" (GE Egerton-Warburton, 1857)	
"Wingeballup"	
Historic route of Thomas Bannister through area	
Historic route: railway line between Albany and Perth	
Tenterden Hall	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF CRANBROOK

4.2.8 Donnybrook-Balingup

The towns in the Shire of Donnybrook-Balingup that fall within this study area are Balingup and Mullalyup, as the Blackwood River drains creeks flowing through the Balingup area.

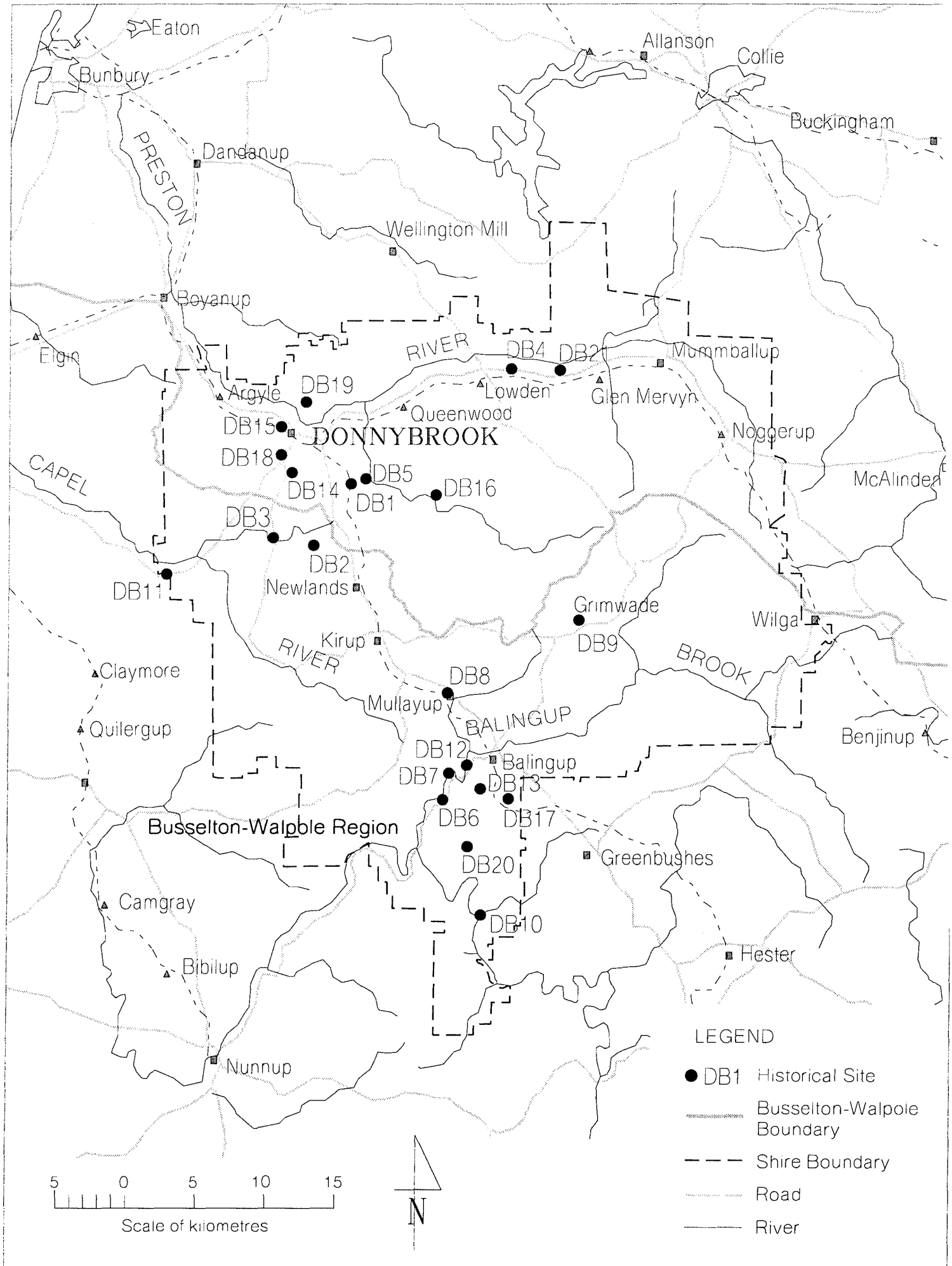
Explorers travelling towards the south coast passed through the area and agricultural explorers searching for land to raise horses and cattle journied along the Preston River to Donnybrook in 1842.

Road links to Bunbury were first established in 1852 and a coach stop was made at the "Blackwood Inn" in Mullalyup, and also in Balingup. The railway reached Balingup in 1897 making it possible to market locally grown fruit and dairy products more easily.

A cheese factory was established and a small timber mill comprised the industry of Balingup. Mullalyup was surrounded by native forests which were logged and milled for timber.

The presence of good waterways and water sources made it possible for these small towns to thrive and maintain local populations through to the present. Historical homesteads and "Inns" are to be found throughout the area and the farming of sheep, cattle and horticulture has provided a good base for a community actively participating in a tourism based industry.

DONNYBROOK-BALINGUP	
Old Brookhampton Hall: Brookhampton	DB 1
Old Brookhampton Farm: Brookhampton	DB 1
"Torridon": Preston Ag Loc 4617, Newlands	DB 2
"Crendon Homestead": Wellington Loc 3339	DB 3
"Yabberup Hall": Preston town Loc 6, Yabberup	DB 4
"Brookview": Wellington Loc 452	DB 5
"Ferndale": Balingup	DB 6
"Brooklands": Nelson Loc 8123/8124, Balingup	DB 7
Blackwood Inn: SW Highway, Mullalyup	DB 8
"Hawterville": Nelson Loc 606/607, Mullalyup	DB 8
Old Mulalyup Inn and Barns: SW Highway, Mullalyup	DB 8
Grimwade	DB 9
Historic routes: rail links	Route 9
"Southampton": Jones Rd, forest lease, 1122/40, Balingup	DB 10
Historic route: Coach staging point in Balingup	Route 10
"Paynedale": Goodwood Rd, Donnybrook	DB 11
Universal Brotherhood Homestead: Balingup	DB 12
"Golden Valley": Lot 11, Nelson Loc 165	DB 13
"Careydale": Cemetery Rd, Wellington Loc 189	DB 14
Anchor and Hope Inn: SW Highway, Donnybrook	DB 15
"Brookhampton House": (pastoral lease by James Guy Thomson)	DB 16
"Eulamo": Balingup	DB 17
Gold mine (1897)	DB 18
Sandstone quarry (1900's)	DB 19
"Somerset House": Ferndale Plantation	DB 20
"Woodlands": Lowden, Boyup Brook Rd	DB 21
Apple processing and jam factory (1909) (Donnybrook townsite)	
Cheese factory: Balingup (Balingup townsite)	
Historic routes: road links to Bunbury	
Timber Mill: Balingup townsite	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF DONNYBROOK-BALINGUP

4.2.9 Dumbleyung

The Shire of Dumbleyung is named after the natural lake which supplied the site for the first permanent European settlers in the area in 1878. The shire is 2,553 square kilometres, it falls within the Transitional Rainfall Zone and has the towns of Dumbleyung, Kukerin, and locations of Moulyinning, Nippering and Tarin Rock within it's boundaries.

The European explorers Lander and Lefroy, who were in search of a large inland sea, were led to Lake Dumbleyung in 1843 by two Aborigines who called the lake "Dambeling". Their reports encouraged the pastoralist George Kersley, from the Beverley area, to bring his sheep to the area for winter grazing. A shortage of both feed and water made it necessary for him to journey back to Beverley with his sheep for the summer season.

Sandalwood cutters and mallet bark gatherers followed Aboriginal trails and waterholes and used the Merilup soak-spring, later establishing a depot in the 1880's. This spring also served as the base for the establishment of a pastoral lease by J. Holland in1876. The first permanent settlers to the area were John Cronin and his family who settled at "Bunkin" on the north shore of the lake in 1878. This homestead is regarded by the local people as a significant historical attraction to the area.

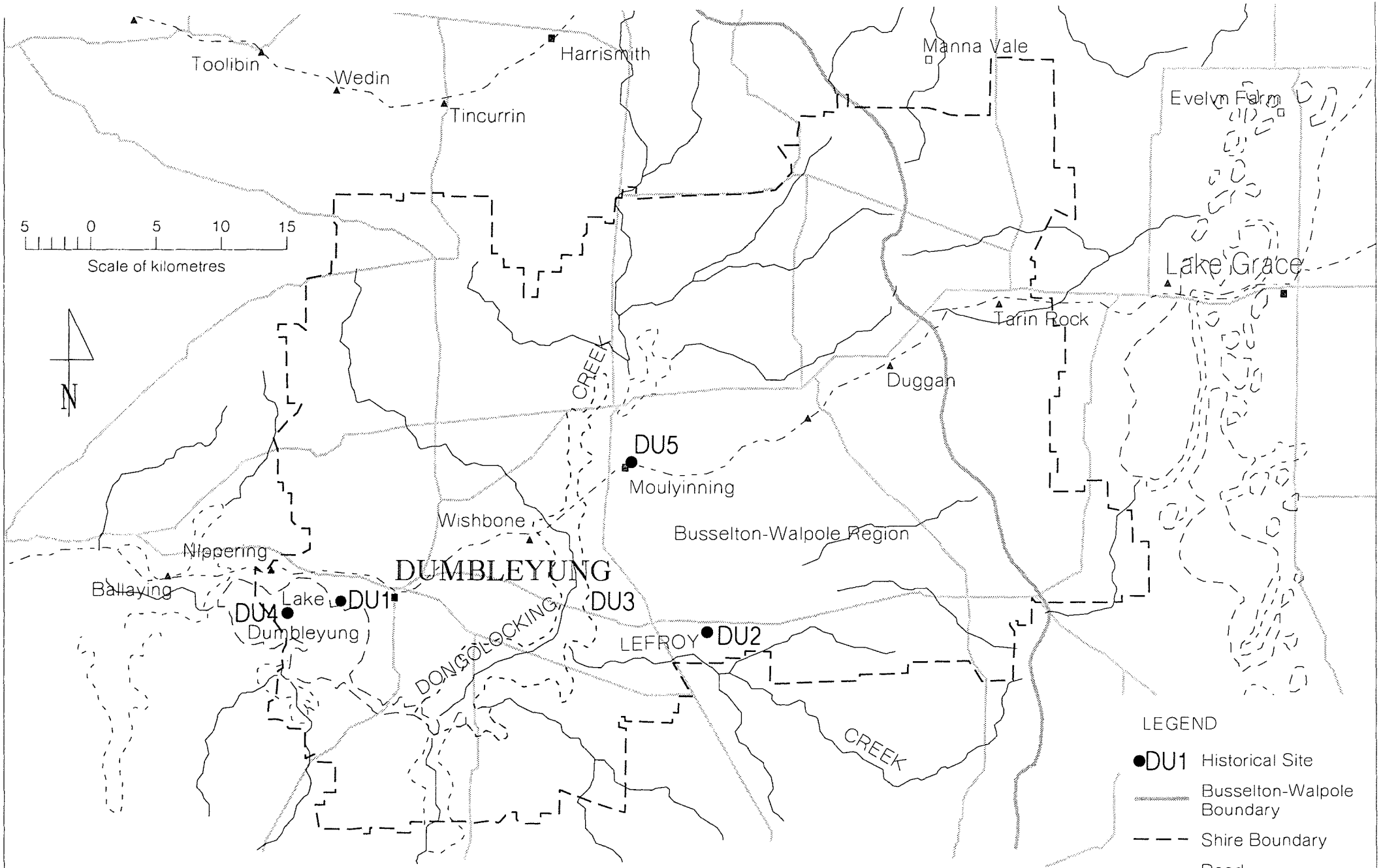
A number of springs and pools including Night Well, Moulyinning Pool, Pingarning Rock hole and soak, and the Dongolocking creek played important roles in early European exploration and settlement of the area. Invariably they were reached with the guidance of local Aboriginal people and subsequently used extensively. Government wells and dams were established in the 1880's and Duggan Dam was built in 1916. Settlers built their own water dams and tanks if they were not sufficiently close to a natural supply, and the comprehensive Water Supply Scheme came into being only in 1990.

Evidence of rising salinity was recorded in the 1930's and contours controlling soil erosion were constructed at the same time. Flood banks were constructed in the shire in 1965. During high water levels in 1955, "fish" were introduced to Lake Dumbleyung.

The town of Dumbleyung was established in 1915 after the railway reached the area in 1907. Pastoralism and grain production are still important farming activities in the area today.

DUMBLEYUNG	
"Wheatfield":	DU 1
Pingarning Rock hole and soak	DU 2
Dongolocking Creek: (soaks and lagoons)	DU 3
Historic route: explorers Land & Lefroy at Lake Dumbleyung	DU 4
Pastoral settlement: grazing on Lake Dumbleyung bed	DU 4
Moulyinning Pool	DU 5
"Bunkin": north shore of Lake (John Cronin & family)	
Contours for managing soil erosion, 1930's	
Duggan dam (1916)	
Flood banks of 1965	
Government wells and dams	
Historic route: "Emu's watering place": (railway dam at Wagin)	
Historic routes: sandalwood and mallet bark collectors	
Historic routes: York-Williams Rd (explorers and surveyors)	
Kukerin townsite: (dam and catchment)	
Lake Grace/Dumbleyung Reserve:	
Merilup Spring	

DUMBLEYUNG (Cont.)	
Night well: (spring)	
Rabbit Proof fence: historic site, Dumbleyung Shire	
Sandalwood depot	
Staunton Springs:	
Well servicing first police station	
Williams Loc 13895, north Kukerin	
World water speed record: Donald Campbell (1964)	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF DUMBLEYUNG

4.2.10 Katanning

Katanning, on the main rail and road route between Albany and Perth, is the major town in the Shire of Katanning which is 1,523 square kilometres in size. Other localities in the shire include Badgebup, Carrolup, Moojebing, and Ewlyamartup. The whole shire falls within the Blackwood Catchment.

The area was first explored by Europeans when Governor James Stirling and Surveyor General John Septimus Roe travelled through the area in search of a route for the future Great Southern Railway in 1835. The shire's name is derived from 'Kartanup', the name given to a pool of sweet water from a stream near the town where three surrounding Aboriginal tribes used to meet. Roe noted that a river in the Carrolup area had pools of good, fresh water. The availability of fresh water and good grazing proved significant in the future settlement by sheep pastoralists such as Elijah Quartermaine who on recommendation from his Aboriginal employee, brought sheep to the area in the 1840s from Beverley. In 1852, Quartermaine was granted a lease of almost seven thousand hectares.

Other European pastoralists and settlers soon made use of the extensive grasslands and fresh water, and with the opening of the Great Southern Railway in the 1880s many leases were granted. The site of the first campsite, "Police Pools", SE of the town, used by policemen posted to Katanning from Kojonup, made use of fresh-water pools for water supply.

The town of Katanning was first evident as a load of sandalwood, collected by pastoralists (to supplement income) and other groups of people, was dumped beside the railway line in 1888 and soon became the site of F. & C. Piesse's store. The first town water supply was a well now commemorated by a plaque in Baker Street.

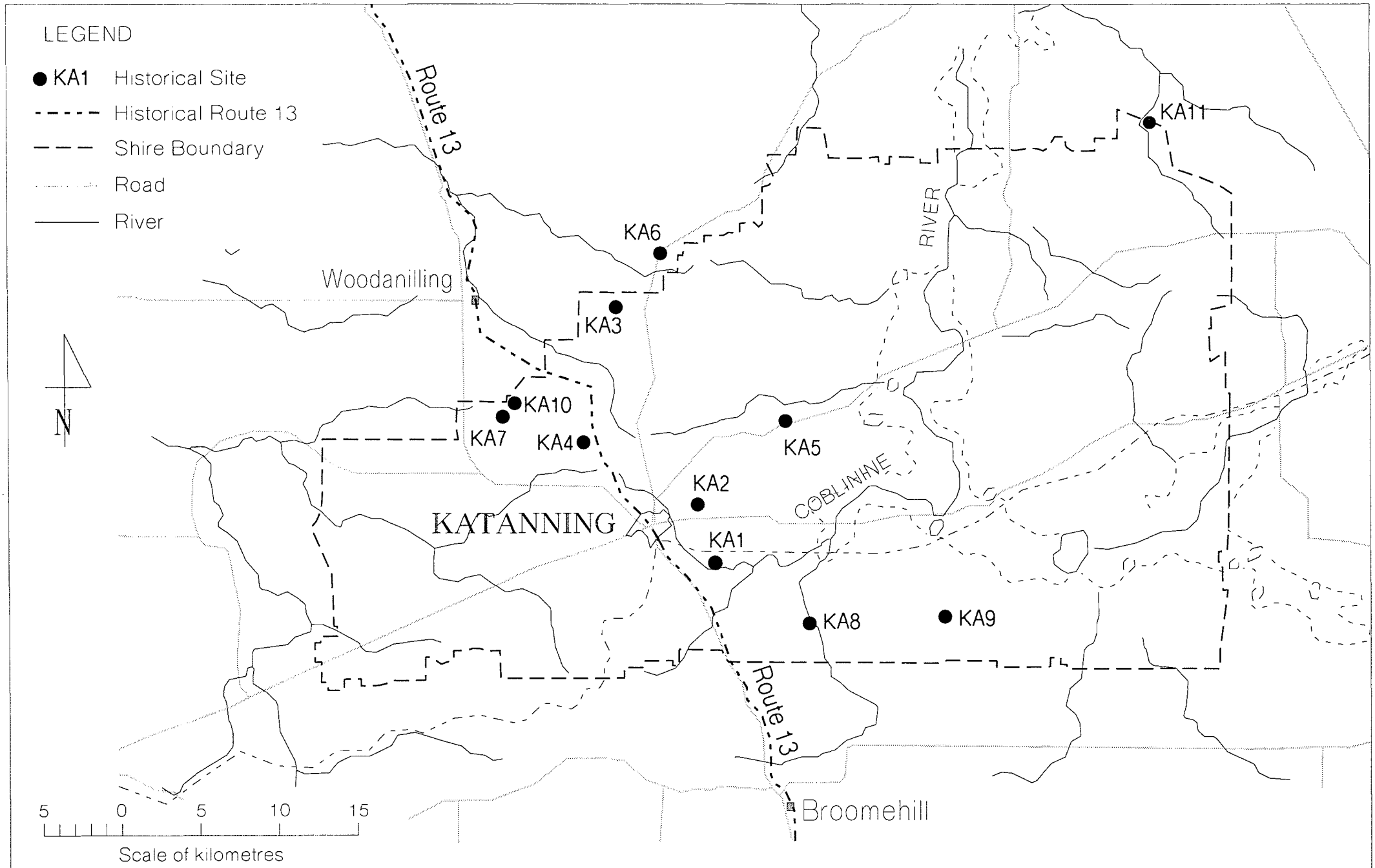
Soon after the establishment of Katanning's first shop, the opportunity was taken to mill locally grown wheat, rather than importing it from South Australia. Based on the Northam Flour Mill, construction began and a 28 metre well was sunk to provide water to power the mill. This proved too brackish for the steam engine so a dam was constructed as an alternative in 1902. As water was always scarce in Katanning, the dam was made available at no cost to local people. Clay from the dam also provided the basis for bricks that many of Katanning's buildings are constructed from.

Agricultural settlers ran sheep and grew wheat, and all depended on the availability of fresh water from sources that included the pools on the Beaufort River, Sumner's Well, Cherry Tree Pool, Maracoonda Pools, Lake Coyrecup, and the Carrolup and Carlecatup Rivers. An abundance of marron, redfin perch, and minnows were still evident in these waterways when salinity started to manifest in the 1930's and 1940's, but are now absent. Throughout this century farm dams deriving their water from runoff or pumping from groundwater have become a conspicuous feature of the wheatbelt landscape. In this sense this shire is similar to other Upper Blackwood Catchment shires. These dams have provided the Yabbie, introduced from south east Australia with a niche within which they have expanded their range.

Agricultural practice still has an emphasis on the production and processing of grain, and, sheep and cattle are butchered at local abattoirs. The original Winery of 1906 remains but viticulture has not become a thriving income earner for local viticulturalists. The shire has maintained the production of bricks which started the construction of Katanning and other light industries have developed as a source of income for this region with a population of nearly five thousand people.

KATANNING	
Police Pools: (old campsite for first policement to be posted to Katanning)	KA 1
Old Dam: (water supply for Premier Flour Mill and clay for brickwork)	KA 2
"Coompatine": (Haddleton's property)	KA 3
"Yowangup": Katanning	KA 4
Meerabin Waterhole	KA 5
Yairabin Well	KA 6
Marragoonda Spring	KA 7
Murdong Pool	KA 8

KATANNING (cont.)	
Tabenup Well	KA 9
Mollongully Well	KA 10
"Sumner's Well"	KA 11
Historic routes: railway line	Route 13
"Cherry Tree Pool"	
"Glencoe/Glen Cove": ("Michael Cronin", huge hand built dam)	
"Premier Roller Flour Mill": Austral & Clive Tce, Katanning	
Beaufort River soak (M. Kowald)	
Carlecatup River	
Historic routes: sandalwood cutters	
Historic routes: Stock routes between Katanning-Kojonup-Boyup Brook-Bridgetown	
Historic routes: surveyors Stirling and Roe (Carrolup River)	
Maracoonda Pools	
Vinyard, Winery	
Well (first water supply in Katanning)	
Moojebing Spring	
Melyeidge Well	
Mailulup Waterhole	
Cartmeticup Well	
Ewlyamartup Lake	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF KATANNING

4.2.11 Kent

The Shire of Kent is six and a half thousand square kilometres, and has the towns of Nyabing and Pingrup within its boundaries. The Blackwood Catchment makes up thirty-five percent of the total and Avon catchments and a huge area of salt lakes which are, in the main draining internally, comprise the remainder. The rainfall is relatively low and the history of the area constantly emphasises the problems of salinity and finding good water.

The first European exploration of the area was by Governor James Stirling's expedition surveying a route for the future Great Southern Railway in the 1830s. Surveyor Roe is known to have taken bearings in the town of Nyabing in 1848, and John Forrest passed through the Nampup area in the 1870s.

"Ticket of leave men" were employed as shepherds by William Henry Graham in the 1850s and sandalwood collectors travelled the area in the 1870s, but the first European settlement was by John Hassell who took a lease of two thousand acres around Cairlocup Lagoon in 1873 and a further three thousand acres the following year around the Chinocup Salt Lake.

Further settlement was made by Henry Hayward and John O'Flaherty who leased land around Nampup Spring in 1976 and in Kuringup Spring in 1879. The Consolidated Land Act of 1898 provided incentive for agricultural enterprise through conditional purchase of land. Settlers included the Charlsey, Johnston, Langley, Manuel, Quartermaine and Shields families in the Nampup districts. However, the frequent shortage of water often led settlers to camp around the small dam in the Nampup area in 1898.

The families in the area were represented to the Minister for Railways in the early 1900s requesting a supply of water to be transported for a moderate charge and for a boring plant to alleviate the shortage of water locally. In 1912 records show that the Vincent Brothers were hauling water from Katanning for three pounds per truck and government charges were 30/- per week for the hire of tanks, but it was lamented that "pot-holes have to do duty for water-supply...". Settlers, once they had moved onto their properties started by sinking a dam and clearing. If a soak was available, water was carted to supply drinking water, house building, stock watering and in an effort to keep vegetables and other plants, brought in by settlers, alive until the winter rains came.

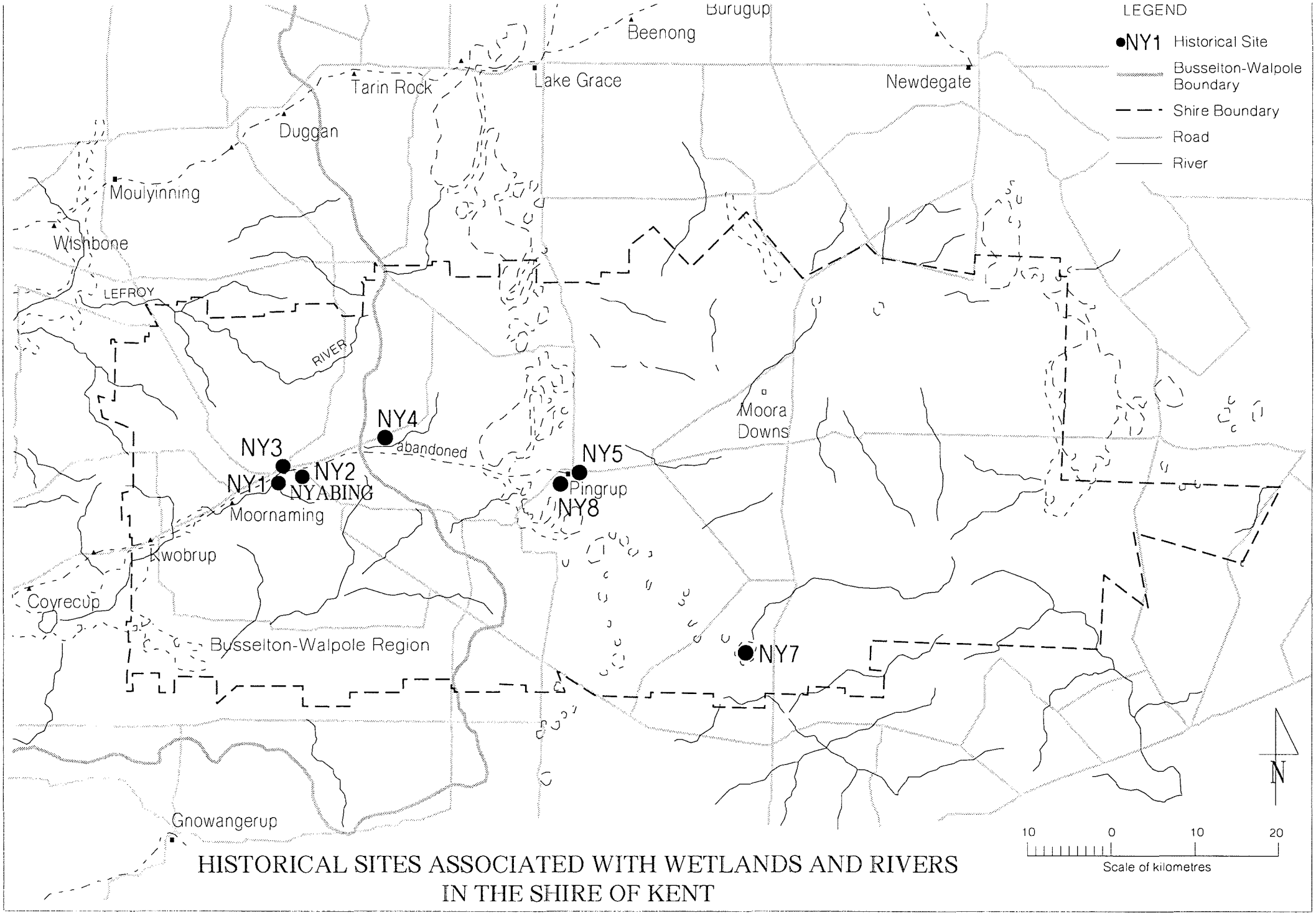
The Rabbit Proof Fence was constructed in 1902 and the railway was extended from Katanning to Nampup in 1910 and to Pingrup in 1922. Both these activities would have placed added stress on the already meagre supply of water in the area. Water supply also came from the Hollands Tank and the water shortage occupied much of the Road Board's time in the Depression years of the 1930s.

News reports indicate the shortage of water from the Ewlyamartup Lake in 1912 and the Wilson Government's extensive scheme of water conservation for the settlers through dam building in that period. Both Pingrup's first and second dams in 1922 turned out to be salt, but a later larger dam gave the residents great pleasure when good water was piped into their homes. Later, in 1935, an effort was made to find a suitable pump with which to clear out Nyabing dam which was showing signs of salinity.

An early settler from the area, (referred to by William Beecham's "History of the Shire of Kent"), Wally Hicks, said in the 1920s: "Actually there is salt under most of this land, but it was kept down while the surface is in its natural state. It was difficult to establish big dams because of the porous soil, and we couldn't prevent silt going into the dams we did build. Evaporation of the water was also a problem. A dam which should have held five feet of water would have had as much as three feet of silt." When referring to Aboriginal people of the area in the 1930s, Mrs H. Smith, another early settler said: "Various soaks provided fresh water, many of these have since become brackish and one at Pingrup has actually become a salt lake...".

It seems that water is still occupying much of the local administrators time and in 1942, the local Board supported Pingrup settlers in their protest against the charge of 2/6 per 100 gallons of water at the Pingrup siding. The farmers of this area are still as concerned with the quality and quantity of water as they continue farming sheep, cattle and wheat as a livelihood.

KENT	
Nyabing Soak	NY 1
Nyabing Dam (town's water supply)	NY 2
Nampup dam (campsite & water supply for early settlers)	NY 3
Nampup Spring	NY 3
Kuringup Spring	NY 4
Pingrup's Dam (town's water supply)	NY 5
Chinocup Salt Lake (early settlement)	NY 6
Lake Cairlocup (first settlement by John Hassell)	NY 7
Soak at Pingrup (Aboriginal water supply that became a salt lake)	NY 8
Historic route: John Forrest (Nampup area, now called Nyabing)	
Historic route: Stirling & Roe (bearings taken near Nyabing)	
Historic routes: Rabbit Proof Fence	
Historic routes: railway line	
Historic routes: sandalwood cutters between Merrillup Soak & Broomehill	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF KENT

4.2.12 Kojonup

The Shire of Kojonup is to be found west of Katanning with its major town, Kojonup on the highway running between Albany and Perth. The shire is nearly three thousand square kilometres in size and has a population of two and a half thousand. Other towns include Muradup, Jingalup, Boscabel and Qualeup.

The first European explorers to the area in 1835, led by Surveyor General Roe, were exploring the Hotham and Williams Rivers. The Surveyor, Alfred Hillman, followed this expedition in 1837, to mark the road to the Swan River Colony by way of York, and was led by a group of Aboriginies to a spring surrounded by granite outcrops called "Kojonup". Soon after this, a military outpost was established and the many local explorations of Lt Armstrong brought to European attention Harri's Rocky Pool, Warriup and Warkelup (Joseph's Well). Other water sources, such as Annurup on the Jackaneedup Creek located by Hillman, Warriemup Spring near the Balgarup River, Kilcardup and the Carlecatup and Carrolup Creeks served as development bases for settlers.

The Tunney family settled "Gracefield" and drescriptions of the property founded on the tributary of the Gordon River south of Kojonup indicate the dependence farmers and early settlers had on water. The river water was used for washing sheep and swimming, and the homestead was built on the banks of the river with a large orchard, vegetable planting and vines planted on the fertile soils along the river and near the vital sustenance of water.

Inez Sexton describes the Gilgies that lived in the creeks, which were caught and eaten at Muradup. Mary Ivers describes the notes in Robert Stevenson's diaries: "Water was always a problem and soaks or pools were invaluable.

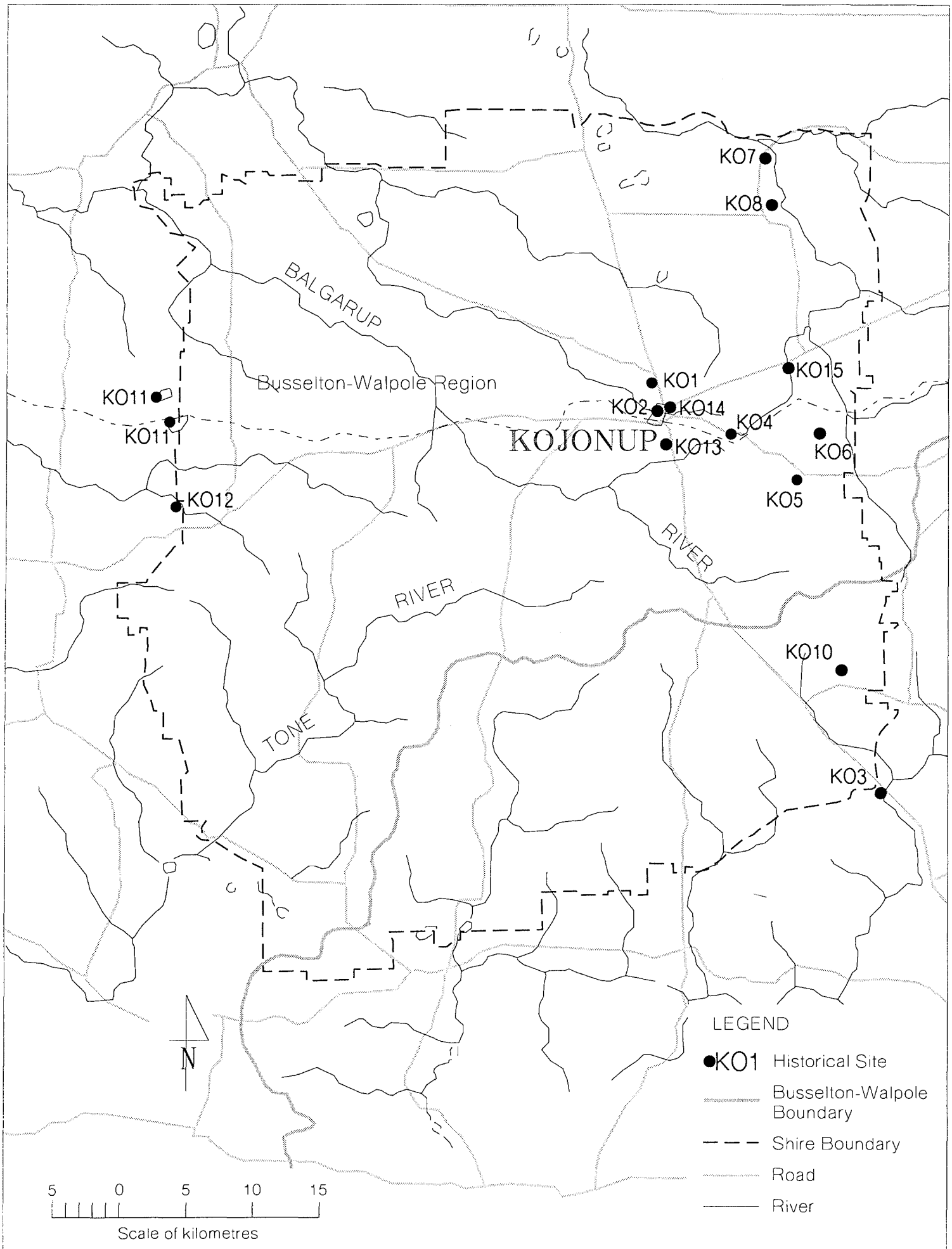
Much time was spent looking for, and boring for soaks and dam sites and although dams were being made they were small and seemed to go dry by the end of summer." Carlecatup Pool and Warkelup Spring were used to supply water for stock watering and household use when other sources ran out.

Inevitably, as with most other towns in the transitional rainfall zone of this study, salt emerged. In the Kojonup area it was noticeable in the 1920s and couch grass was planted on salt patches appearing along the creek line of Robert Stevenson's farm.

A substantial listing of early properties in the accompanying data base shows that almost all were adjacent to good pools or other water supplies. The activities of early settlement have not changed substantially in the passing of time. The soldiers have gone, and sandalwood is not as lucrative in the area now, but sheep, cattle, grains and timber (both agroforestry and native forests) are still a good source of income for the farming community in the area today.

KOJONUP	
"Glen Lossi": N of Kojonup	KO 1
Old Post Office: Spring St, Lot 18	KO 2
"Gracefield"	KO 3
Warkelup/Joseph's Well: ESE of Kojonup Spring	KO 4
"Crossburn"	KO 5
"Ripplemead"	KO 6
Quongering Pool: on the Carrolup Creek	KO 7
Cherry Tree Pool	KO 8
Carlecatup Creek	KO 8
Yarranup Pools	KO 10
Qualeup	KO 11
Wahkinup Brook: 1.6 kms north of Mayanup - Kojonup Rd	KO 12
Reservoir and Catchment area	KO 13
Old Barracks: Lot 21 (at Kojonup Spring)	KO 14

KOJONUP (cont.)	
Kojonup Springs	KO 14
Annurup: NE of Warkelup on Jackaneedup Creek	KO 15
"Windemere": Tambellup	
"Collinsvale Homestead"	
"Muradup"	
"Old Newstead"	
"Wannenup": N of Kojonup	
Carlecatup Pool	
Elverd's House: Soldiers Rd, Lot 16	
Fifty Four Creek crossing	
Harri's Rocky Pool: S of Kojonup	
Historic route: Kojonup Spring	
Historic route: sheep droving between Williams and Kojonup across Beaufort River	
Historic route: Stirling & Roe (Hotham and Williams Rivers)	
Jackaneedup Creek	
Jewells Pool: Loc 929	
Kilcardup	
Marron /Picnic Pool: Loc 712	
Pratts Crossing	
Tomato Sauce Factory: Loc 1201	
Warriemup Spring	
Warriup: S of Kojonup	
Well on Clark's property	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF KOJONUP

4.2.13 Shire of Manjimup

The Shire of Manjimup is situated in the high rainfall area of the south-west. The major towns are Manjimup, Pemberton, Walpole and Northcliffe.

The district's coast was first explored in 1797 by D'Entrecasteaux who named the conspicuous coastal landmark of Point D'Entrecasteaux.

The first overland exploration was by two parties in 1831. Bannister and Smythe walked south from the Williams River, eventually reaching the coast west of Walpole en route to Albany. Lieutenant Preston explored the coastline west of Rame Head and after landing, walked overland from Point D'Entrecasteaux to the settlement of Augusta.

Agriculturalists from the towns of Augusta and Albany were eager to find new grazing and outstation settlements for their sheep and cattle. This led to exploration first along the Warren River, and later overland, both by surveyors and pastoralists in search of good water and grazing.

The course of their journeys and considerable guidance from local Aboriginal people led them to Lake Muir, the Brokes Inlet and to many of the water systems of the area. Exploration and location of abundant supplies of fresh water and grazing on the Donnelly, Warren and Gardner Rivers led to settlement and what has now become a productive agricultural community.

The first property in the area was established by Thomas Muir and his family who travelled from the Mt Barker district, guided to the Perup area in 1855 and then to the Warren district where the Muir brothers and their families established 'Topanup' (now Deeside).

Exploration of the area continued while the Warren district became established as a settlement for European immigrants searching for suitable pastoral country. The earliest settlers lived near Lake Muir, along the Wilgarrup River, Manjimup Brook and on the Warren River. Coastal leases were used for summer grazing and these routes, now known as Deeside and Wheatley Coast Roads, followed good water points and poison free grazing.

Settlement in the Pemberton area took place very soon after in the 1860s with buildings such as "Warren House" on the banks of the Warren River, dating from that time still in evidence adjacent to important river crossings and water sources.

Very soon after the first European settlers arrived, the first roads and bridges were built by convicts providing the infrastructure for marketing of produce and mail delivery.

The Homestead Act of 1893 opened up more land which marked a change from the selection of land by white settlers to conditional purchase, often not based on the previously important criterion of water.

The Group Settlement Scheme brought further clearing and European settlement to Pemberton and Northcliffe in the early 1920s with an emphasis on dairy farming. Large orchards were established early in the century to supply the mining boom in the goldfields, and potatoes and onions were grown to supply big populations involved in mining tin and milling timber.

The timber industry began at the turn of the century with the establishment of a rail system which eventually reached Northcliffe. Waterways were integral to the railway providing water for steam trains. The establishment of timber mills, which were often driven by steam and the many mill towns that grew around the industry were dependent on good water supplies.

After playing host to numerous itinerent sealers, who planted vegetables on Snake Island and Sealers Cover, and French explorers like D'Entrecasteaux who named significant landmarks in the area, Walpole was discovered almost by accident by Bannister and Smythe, who, having had difficulty with survey equipment, found themselves at Banksia Camp, west of Walpole in 1831, instead of in Albany. They started on the ardous journey eastwards by foot grappling tall forest, thick coastal scrub and difficulties with water, eventually to reach Albany. The same mistake was not made by Preston who in the same year took a boat from Augusta and landed without much difficulty east of Walpole only to tackle the largest dunes in Western Australia as part of his mammoth walk back to Augusta, carefully mapping all native wells that would serve agricultural settlers.

Early land grants were made to the Landor brothers in the upper part of a gully west of D.R. Thompson's place, later Tinglewood Lodge, where they grew vegetables. Frank Skinner Thompson settled two properties with direct access to the Inlet and sea and it was not long after that Millars was granted timber concessions. Swarbrick was granted land at Rest Point in 1926 and milled timber.

The first reserves in the area, declared in 1886, were set aside by Sir James Mitchell in recognition of the beauty and majesty of the trees, as well as a desire to

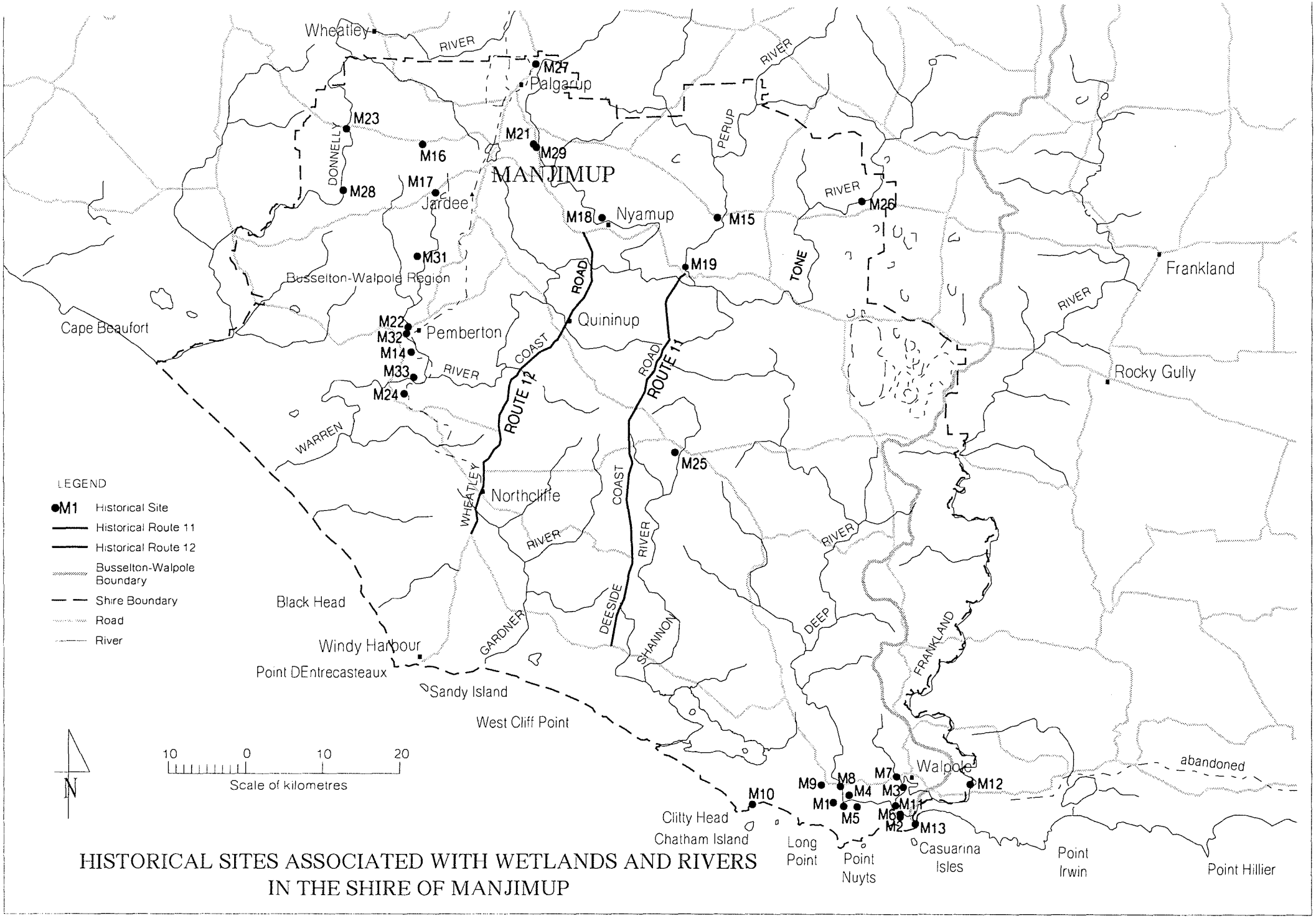
reserve for posterity a favoured fishing spot where he was destined to spend many holidays.

Walpole was for many years a holiday camp for pastoralists from the Manjimup and Warren areas. The preferred site was on the Nornalup Inlet at what was to become known as "The Peppermints". Walpole was gazetted as a town in 1921 dictated by the clearance for a road half a mile N of Walpole inlet. Tourism, timber, dairy and beef, the activities of the early part of this century, still play an important role today.

MANJIMUP (cont.)	
Landor's Gully (grazier's property)	M 1
Sealers Cover: Nornalup Inlet	M 2
Rest Point	M 3
Mt Clare (type locality of Red Tingle)	M 4
Frank Skinner Thompson: Loc 1239, 1240 (Tinglewood Blocks)	M 5
Summer Camp (between Rocky Point and "The Peppermints" on the Nornalup Inlet, Walpole)	M 6
Bridge over Walpole River	M 7
Bridge over Deep River	M 8
Crystal Springs: Moirs camp to service coastal grazing leases	M 9
Banksia Camp	M 10
Newdegate Island	M 11
Historic route: Deeside Road	Route 11
Monastery Landing	M 12
Historic Route: Wheatley Coast Road	Route 12
Nornaculup Well near Bar of Nornalup Inlet	M 13
Pemberton-Northcliffe Railway	M 14
Perup Homestead: Hay Loc 4	M 15
Tobacco Farm Group 1: Nelson Pt Loc 429, Junction Appadene Rd, 9/10 km W of Manjimup	M 16
Fonty's Pool: Lot 3 of Nelson Loc 2711	M 17
Rivervale: Nyamup	M 18
Topanup/Deeside	M 19
Balbarrup Brook Flour Mill	M 21
"Dingup"	M 21
Trout Hatchery: (started in 1930)	M 22
One Mile Bridge: N of Pemberton	M 23
Brockman's Sawpit: Dombakup	M 24
Shannon Townsite	M 25
"Mordalup"	M 26
Wilgarrup Homestead Group: 11 km N of Manjimup	M 27
Palin's Bridge	M 28
Fernslopes Homestead: Nelson Loc 708, Balbarrup	M 29

MANJIMUP (cont.)	
Balbarrup	M 29
Donnelly Well	M 30
One hundred year old forest	M 31
Wandagarrup Homestead: Loc 1772 (by Lefroy Brook Bridge)	M 32
"Warren House": Lot 41	M 33
Historic route: Thomas Muir, W from Mt Barker	
"Dunreath"	
"Eastbrook"	
"Fern Hollow"	
"Flybrook" (group settlement scheme)	
"Forest Hill": Muir family property	
"Glenpennant"	
"Karri Hill" (now known as One hundred Year Forest)	
"Mayfield": NE of the Balbarrup settlement	
"Mica Hill"	
"Peppermint Grove" (near the Warren River)	
"Seaton Ross"	
"Springdale" Farmhouse, (wood, slab, shingle house): Loc 190, Booth Rd	
"Yarkenup": DeCourcey Lefroy	
Bell Brook (grazier property)	
Bellanger property: Nornalup	
Big Brook and Warren River junction, selection: Clauder	
Bridge over the Warren River near the Brockman's homestead	
Broke Inlet (major fishery)	
Cattle Leases on Gardner River & Meerup Coast (Brockmans)	
Channybearup Brook Flour Mill	
Collier River Dam	
Colonels (at Calcup Ford)	
D'Entrecasteaux Lighthouse	
Deep River (sealer's retreat)	
Donnelly River Mill: Andrew Rd, Donnelly Mill	
Ficifolia Reserve: 15677	
Finsbury: Muir Hwy	
Freshwater Creek: Nornalup	
Graphite Mine near Donnelly River: (early 1900s)	
Historic route: Augustus Gregory, journey through Warren, Donnelly Gardiner and other water courses	
Historic route: Bannister & Smythe	
Historic route: Clarke explored Frankland, Deep River and Nornalup and Walpole Inlets.	
Historic route: Hillman (inlets)	
Historic route: Preston in "Success", walked overland to the settlement of Augusta from Rame Head, E of Walpole.	

MANJIMUP (cont.)
Historic route: railway line from Bunbury to Northcliffe
Historic route: Vasse-Warren Rd built by convicts
Historic route: von Mueller and Andrew Muir (Lake Muir to Nornalup)
Historic route: William Moir pushed a track from Frankland River at Crossing Falls to Deep River and on to Bell Brook
Lake View (Muir's property)
Lefroy Brook Hydro-electric plant
Manjimup Brook: property of Frank Hall (1858)
Manjimup House: Young St, Manjimup
Nornalup Inlet ("native" well)
Nornalup Land Settlement: James Mitchell's settlement scheme
Pemberton Pool
Ralston, AR: first Ringbark Scheme settler
Seven Day Road selection: Archimede Fontanini
Snake Island: vegetables planted by Landor Brothers
Stoney Ford: Edward Brockman's property on Warren River
Timber Mill: Donnelly steam mill
Timber Mill: Northcliffe
Timber Mill: Quinninup
Timber Mill: Shannon
Timber Mill: Tone River
Tobacco Farm Buildings: 8 Plunkett St, Manjimup
Tobacco Farm Group 2: Nelson Loc 492, between Graphite & Ralston Rds
Twin Lakes
Walpole River (acquifer)
Warren River mouth: oil drilling in 1902
Young's Homestead: Nelson Loc 74



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF MANJIMUP

4.2.14 Nannup

The Shire of Nannup is heavily forested with a population of just over one thousand people. The town of Nannup was established at a major ford on the Blackwood River and the town of Donnelly River Mill was established on the Donnelly River as a timber town, milling timber logged from surrounding native forests.

First exploration of the area was by Thomas Turner and his party who had set off from Augusta in 1834 to trace the Blackwood River upstream to its source. More than ten years later in 1845, the surveyor Augustus Gregory led an expedition tracing the river from its upper reaches travelling towards the mouth at Augusta. At the end of 1858 the first land surveys in the Lower Blackwood area were conducted by Robert Austin and other surveys were conducted in the 1860s by John Forrest.

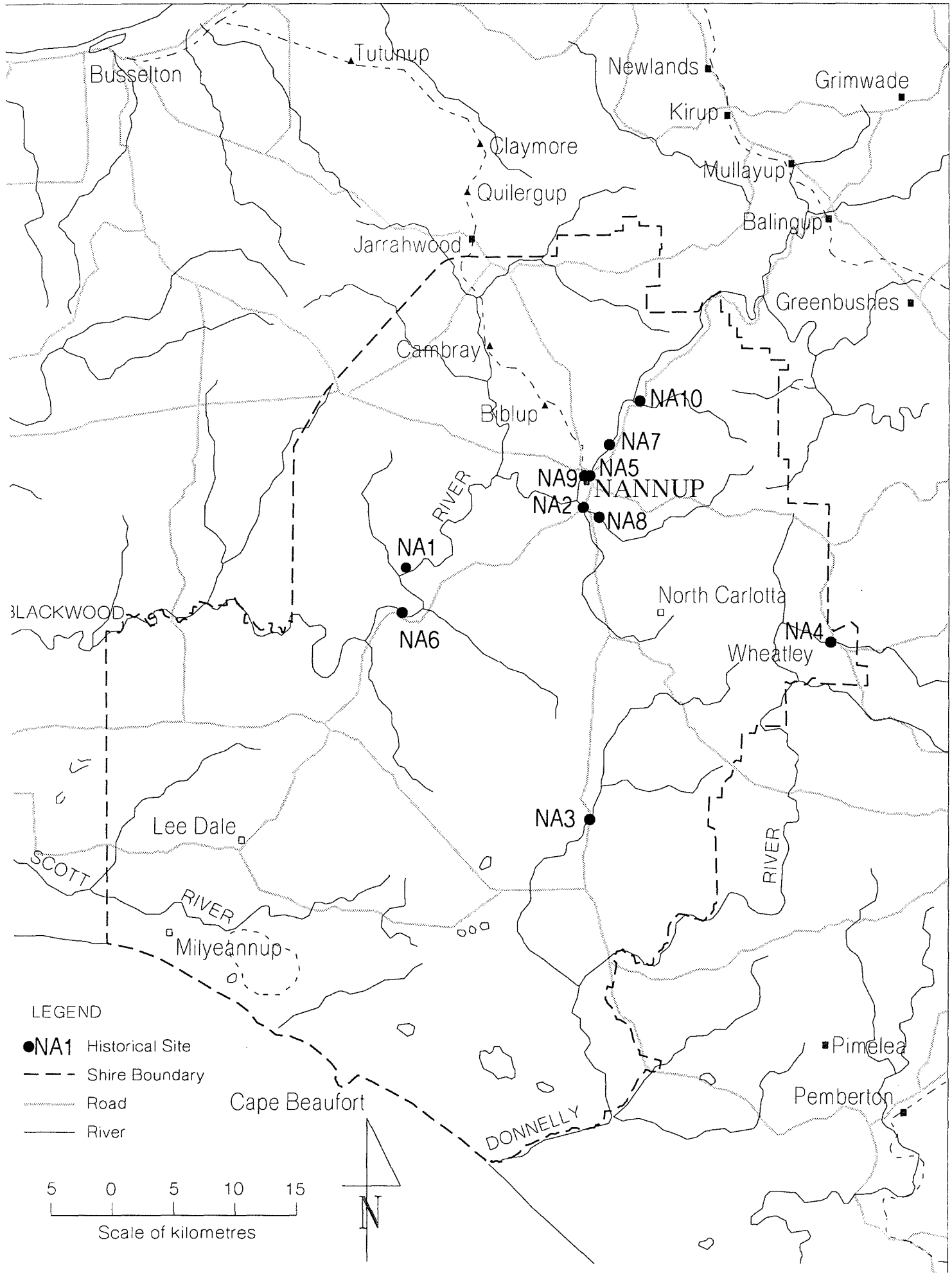
Leases for cattle grazing were taken out by established farming families from Busselton and Bunbury in the 1850s and 1860s with the first settlement and farming development along the Blackwood River at Darradup and Between Balingup and Nannup. A police station was built at the Lower Blackwood Bridge and the first officer-in-charge was Constable WP Stack.

The town of Nannup developed and was eventually declared in 1890. A bridge was built over the Blackwood by convict labour in 1866. "Biddellia" Homestead, thirty kilometres south of Nannup on the Barlee Brook was established in 1876 and reflected the difficult life of self-sufficient settlers.

Good quality hardwood timber logged from the surrounding native forests led to the establishment of timber mills at Barrabup in 1908 and at Ellis Creek later in 1913. The original Bunnings mill in Nannup, dating from 1925, was steam driven with water for the boilers provided by a dam which also provided local farmers with water for domestic use.

Rail links to the ports of Busselton and Bunbury in 1909 boosted timber export from the area and provided the local farmers with access to markets in Perth and the Goldfields. Timber is still sent by rail from the forests around Nannup, and dairies, beef production, agroforestry and viticulture are sources of income for the farming community in the area. As part of an important tourism route in the south west, Nannup has developed a thriving cottage industry servicing the many tourists that visit annually.

NANNUP	
Jalbarragup Bridge: MRD 3978, Loc 1574	NA 1
Bridge over Blackwood River at Nannup	NA 9
Nannup Brook Bridge	NA 2
"Biddellia Homestead" (S of Nannup on Barlee Brook)	NA 3
Donnelly River Mill	NA 4
Horse ford over Blackwood River: N of current bridge in Nannup	NA 5
Darradup: first settlement and farming	NA 6
Tanjanerrup Farm	NA 7
Majenup Brook	NA 8
Nannup Railway Bridge	NA 9
Timber Mill: Ellis Creek	NA 10
"Ferndale Homestead"	
"Old Orchard" House: Lot 7893 River Rd	
"Old Templemore": 8 Warren Rd	
Blackwood River: water supply for settlements and farming community	
Historic route: Augustus Gregory, down Blackwood River	
Historic route: John Forrest surveys of Nannup area	
Historic route: railway links from Busselton	
Historic route: Thomas Turner exploration from Augusta along Blackwood River	
Timber Mill: Barrabup	
Timber Mill: Bunnings (S of Higgins Swamp along Warren Rd)	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS
IN THE SHIRE OF NANNUP

4.2.15 Narrogin

The Shire of Narrogin extends for over sixteen hundred square kilometres and with the population of the Town of Narrogin included totals nearly six thousand people. The locations in the shire include Highbury, Yilliminning and Nomans Lake.

The first explorers through the area came in the 1830's and included JS Roe, the surveyor, Bannister and later in 1869, John Forrest who described a location within the present townsite with reference to Narrogin Pool. Shepherds from surrounding areas followed water courses and used pools throughout the area in the 1860's and in 1889, the surveyor William Angove devised a plan for the projected town as a basis for development. Ultimately though, the town developed as a result of the steam trains passing through between Perth and Albany, requiring water which was supplied by the Narrogin Spring then later by a railway dam built across the Narrogin Creek. Salinity levels in this dam proved a problem for steam trains.

Railway dams were located on a number of sites in the Shire including Highbury and most sidings.

Along with significant alteration of most of the waterways in this shire, the Narrogin Creek has undergone a number of alterations as outlined by Mr Maurie White, the Honorary Curator of the Old Courthouse Museum in Narrogin. They include: straightening, periodic clearing of bullrushes and weed growth, mosquito swamps cleared, storm water pipes fed into creek, waste water drainpipes from large hotels, current landscaping with the creation of an artificial pool using recycled effluent water and in the early days waste water from the large railway locomotive maintenance depot and butter factory was fed into the creek. Onset of salinity in the Narrogin Creek was recorded in 1931 and other lakes in the area first recorded salinity in the 1950s. Salinity was recorded in low lying areas on farms long before the 1950s.

Sandalwood collectors and mallet bark strippers used a number of water sources in the Narrogin area including Stoned Soak near Birdwhistle Rock, Four Mile Well, the ford at Rocky Crossing near the Kunderning Pool and Stoned Ford to cross the Arthur River at one end of Wolwolling Pool.

Early pastoralists and settlers built homesteads close to natural springs and pools from the 1870's and as an indication of the importance water played, disputes were not uncommon regarding access to water sources. These water sources provided domestic water supplies and water necessary for sheep management. Numerous sheep dips and washes are recorded from the area including on the Williams River, Old Forest Lodge, Narrakine Gully, Newman's sheep washing pool and Taylor's soak. Some of these sheep washing pools are marked on early maps as are the locations for watering travelling stock.

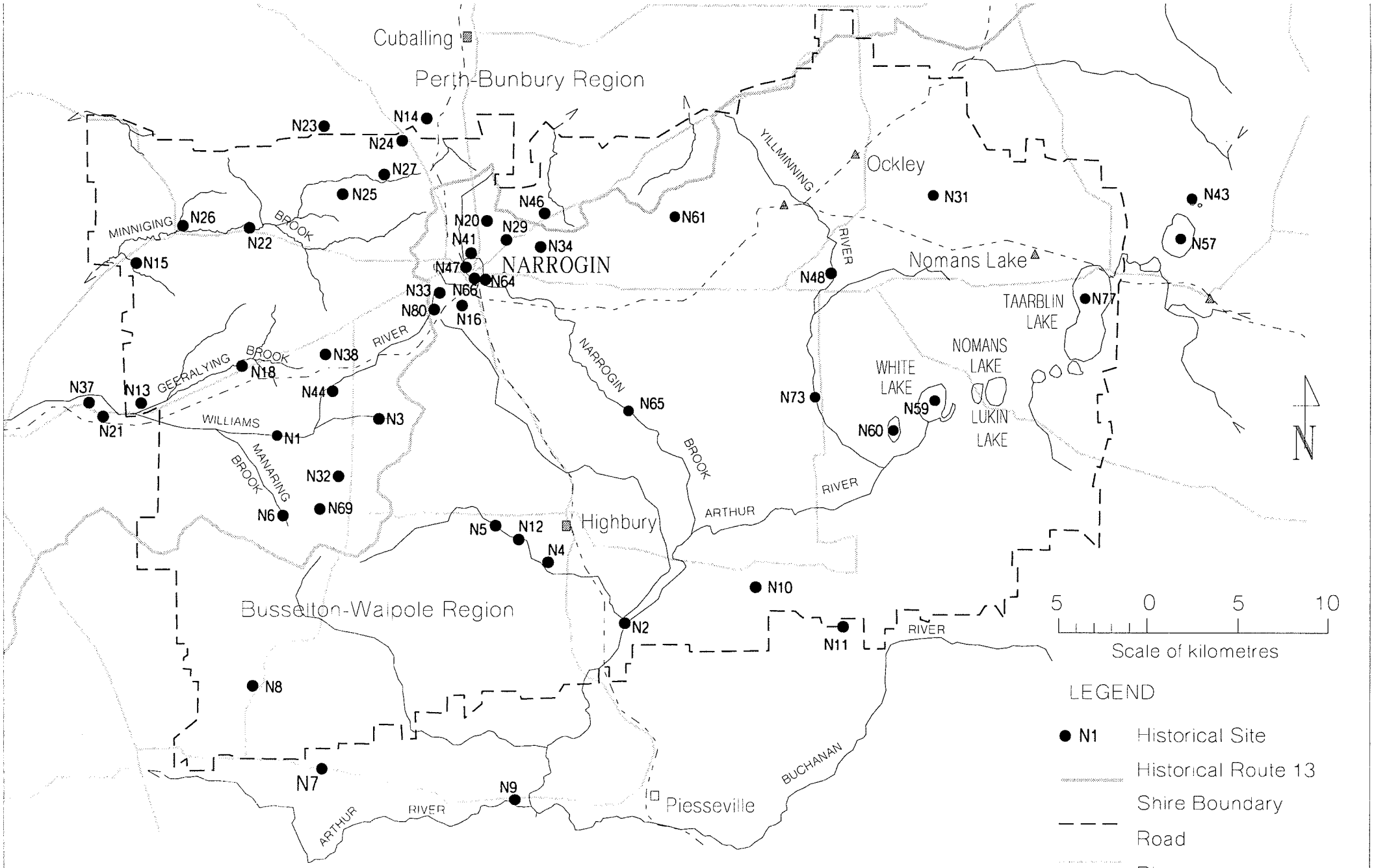
Chinese settlers moved into the area from the Goldfields in the 1890's and used natural soaks and damp patches for small market gardens. Examples of these sites are on the Trefort Property immediatlely north of Narrogin and Dumberning location No. DAA 178, west of Narrogin.

The town of Narrogin displayed an avid interest in the development of cultural pursuits through the establishment of a winery on Doddum Farm in 1880 where vigneron John Dodd grew grapes and the establishment of a brewery built and operated by Nicholas Bushalla in the early 1900's. The following comment from the Narrogin Heritage Trail brochure indicates the difficulties of pioneering life in the wheatbelt: "The brewery's demise was due to the beer, which was described as tasting like mallet-bark juice, possibly due to the quality of the water available."

Other settlers then and now pursued more conventional methods of earning an income including the production of poultry, beef, vegetables, fruit, wheat and oats. Dairies were also in operation then but the only one in operation since the 1950s is at Narrogin Agricultural College.

NARROGIN	
Kunderning Pool: (at rocky crossing on Williams River, W of Narrogin)	N 1
Wolwolling Pool: (S of Narrogin, Reserve in Arthur River)	N 2
"Cooraminning" Spring: lease to Bingham originally	N 3
Mokine Spring: In Narrakine Gully, s of Highbury	N 4
Taylor's Soak: Mokine Spring in Narrakine Gully, Loc 62	N 4
Narrakine Gully	N 5
Manaring Spring in Manaring Brook, tributary of Williams River, sw of Narrogin	N 6
Wangeling Pool in Wangeling Gully, tributary of Arthur River	N 7
Quinns Pool in Wangeling Gully	N 8
Whinbin Rock: on Whinbin Road, e of Highbury	N 10
Carcunning Rock: Loc 14915 in Wagin Shire	N 11
"Noalimba" /Warren Homestead: Newman's sheep wash pool in Narrakine Gully	N 12
Narrakine Gully: Newman's sheep dip & wash (near Highbury)	N 12
Newman's Sheep wash Pool: in Narrakine Bully	N 12
Stoned Ford: (crossing the Arthur River at S end of Wolwolling Pool)	N 12
"Carnegie": William Cornwall's home originally	N 13
"Chuggamunny" Hill: (barracks for rail workers, first building in the area, 1850s on Gt Southern Hwy Cuballing Rd SW)	N 14
"Denabling" (Hardie's farm)	N 15
"Firle" (John's family property originally)	N 16
"Geeralying": (Stanyford Cowcher's property on Gearlin Aboriginal Camp originally)	N 18
"Hillside" (Trefort family farm)	N 20
Chinese Market Gardeners settlement on Trefort property N of Narrogin	N 20
"Minabbie": Konderning Pool	N 21
"Minigin": Loc 37, on Minniging Brook (property originally settled by Edward Barron)	N 22
"Murrin Murrin": (Barron family property originally, Cuballing Rd SW)	N 23
"Nebrikinning"/"Thistledale": (James Fitt's property, Wandering-Narrogin Rd S)	N 24
"Rose Valley": (Spouse Rd, W)	N 25
"Rosedale": Clayton Rd W	N 26
"Sylvania": (originally Pustkuchen's property, Spouse Rd E)	N 27
Arthur River: small township on Albany Hwy, 4 miles s of Arthur R crossing	N 28
Bailaling Spring: (E of Narrogin, WF Wiese's property)	N 29
Birdwhistle Rock: on old sandalwood track between Yilliminning and Nomans Lake siding	N 31
Stoned soak: (at Birdwhistle Rock, on old sandalwood track, E of Narrogin)	N 31
Booran Spring: on a tributary s of Williams River, s of Dumberning Spring	N 32
Bottle Creek: W of Narrogin (domestic water)	N 33
Boundyne Spring: on Boundyne Gully, a tributary of the Arthur River	N 34
Carter's Crossing: strategic point for military base & original town planned for area	N 37
Chinese Market Gardeners settlement on Dumberning Loc no DAA 178, W	N 38
Doddum Farm: Winery	N 41
Dulbinning Government Dam	N 43

NARROGIN (cont.)	
Dumberning Spring: Loc 149, beside Williams River (W of Narrogin, originally JH Stevens property)	N 44
ford at Rocky Crossing: (at Kunderning Pool, in Williams River, W of Narrogin)	N 45
Kunderning: George Dyson's property (original settler at Kunderning Pool in Williams River)	N 45
Rock crossing over Williams River: (crossing before bridge built)	N 45
Four Mile Well: (E of Narrogin on N side of Williams-Kondinin Road)	N 46
Gnargojin Pool: (on Narrogin Brook, in Narrogin Townsite)	N 47
Narrogin Pool: In Narrogin Brook	N 47
Gnilerminning Pool: E of Narrogin, Yilliminning Pool, Loc 726 in the Yilliminning River, up from Arthur River (taken up by C. Smith)	N 48
Yilliminning Pools: E of Narrogin	N 48
Lake Toolibin	N 57
Big White Lake	N 59
Little White Lake	N 60
Marramucking Well: (E of Narrogin, on old Sandalwood track out East, Pustkuchen's property)	N 61
Murramucking well	N 61
Narrogin Brickworks: on Narrogin Brook SE of town	N 64
Narrogin Brook: runs into the Arthur River E of Highbury	N 65
Narrogin Flour Mill: (steam driven)	N 66
Old Forest Lodge: Highbury West Rd, sheep dip & wash	N 69
Rushy Pool: in Yilliminng River	N 73
Tarblin Lake	N 77
Torbling Spring: Dumberning A.A. Loc 71, beside Bottle Creek, source of Williams River	N 80
Torbling Spring: (W of Narrogin, W Graham's property)	N 80
Yornaning: Railway Dam, water supply (N of Narrogin)	N 86
Jugominning Spring: a variation of spelling for Chuggamunny Hill and Spring, just S of Cuballing	N 87
"Glenfield"	
Brewery: (Nicholas Bushalla's in Narrogin)	
Caballing Spring	
Historic route: John Forrest referring to Narrogin Pool	
Historic route: John Septimus Roe, explorer	
Historic route: Railway line and water supply points	
Historic route: Sandalwood collectors and mallet bark strippers	
Historic route: shepherds from Wagin, Wandering and Mourambine	
Public Well: on Felspar Street	
Public Well: oposite the Duke of York Hotel in Federal St	
Walyuring Spring: Walyuring Rock is E of Harrismith	
Williams River: sheep dip & wash	
Wogolin Pool: Wogolin Spring is W of Jitarning	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF NARROGIN

4.2.16 Wagin

The town of Wagin developed with the construction of a railway siding at "Emu's watering place" in 1893. The Shire of Wagin is nearly two thousand square kilometres in size and has a population of nearly two thousand people. The only town other than Wagin is Piesseville. The Wagin Historical Village is an attraction to people visiting the area.

The Arthur River, at West Wagin was crossed and named by the Stirling-Roe expedition in 1835. Their Great Southern Expedition passed through the area describing the rivers, creek, pools and lakes. Their route took them over the Arthur River, where they described the "long pool, Wanaking", the swampy land of Norcott Plains and they camped near a well of good water that had recently been excavated by local Aborigines.

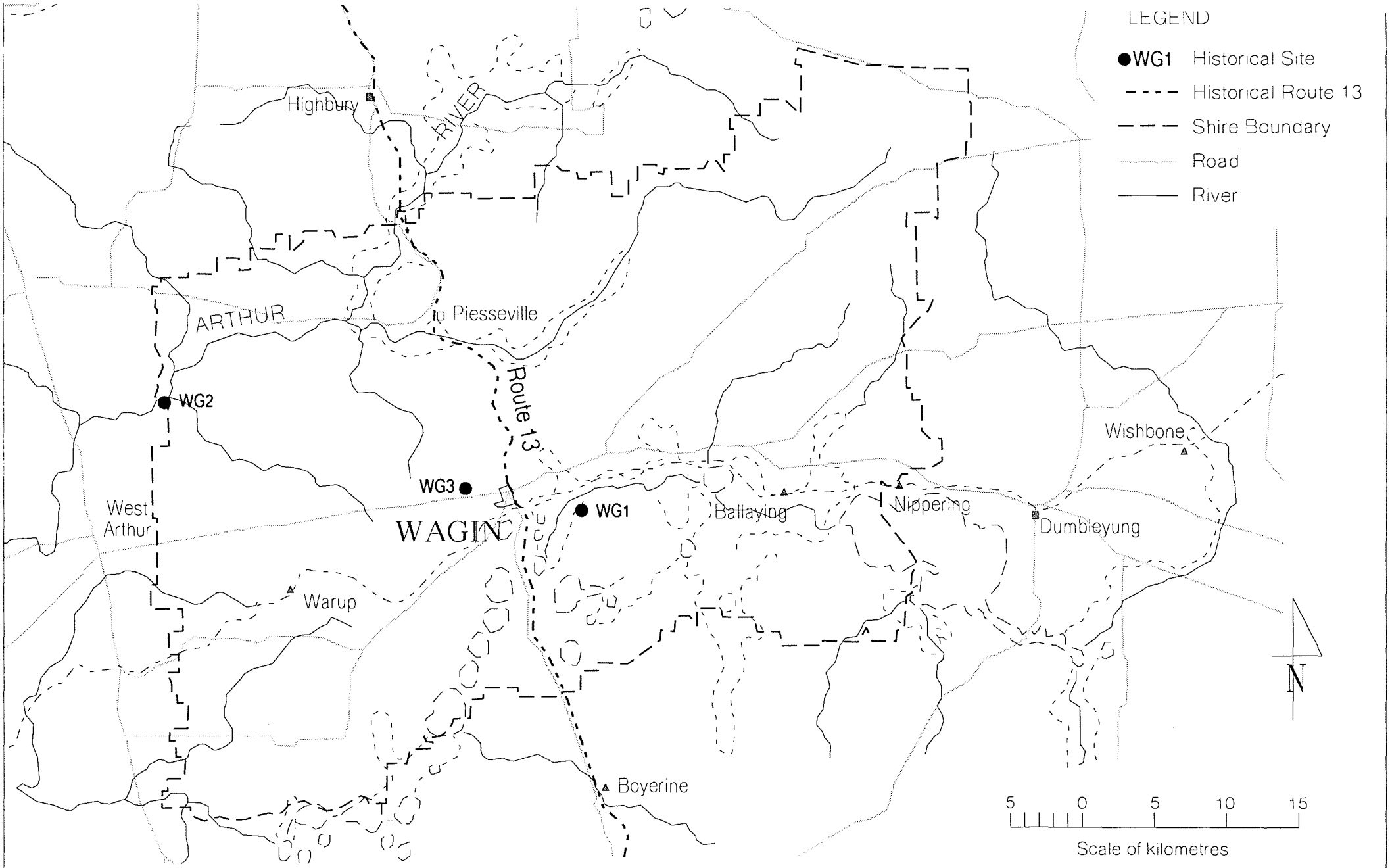
They marked a tree in the vicinity of the camp. Further on, they described the tributary of Bockaring Creek, as containing brackish water and travelled in a south east direction following the bed of another tributary to find another Aboriginal well.

Before passing through the area now known as the Shire of Wagin into the Shire of Woodanilling, they described their camp at Lime Lake which was watered by a "native" well and moved onto a camp at Yairabin Well with the experience of their "native" tracked, Migo, as instrumental in locating the vital, established well sites.

Early settlement in the Wagin area was in 1879 and the railway connected the town in 1889. The Wagin Lake supplied water for the steam trains and a brick works was established adjacent to the railway line, no doubt making use of the same water supply.

The industry of the area today includes wool, pigs and grain production, light manufacturing and rural industries and promotions such as the Wagin Woolerama.

WAGIN	
Pantaping Rock: water catchment	WG 1
Nobles Bridge & Wanaking Pool	WG 2
"Tillelan": Lot T24, Tudor & Tudhoe Sts	WG 3
Historic route: Railway line and water supply	Route 13
Bockaring Creek (water supply for Stirling & Roe expedition)	
Brick works:	
Historic route: Stirling and Roe expedition	
Lime Lake (water supply for Stirling & Roe Expedition)	
Mailing Gully (campsite for Stirling and Roe Expedition)	
Nobles Bridge (N of AW Harvey's property)	
Wagin Lake:	
Wanaking Pool: on Arthur River	
Yairabin Well (water supply for Stirling & Roe Expedition)	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF WAGIN

4.2.17 West Arthur

The Shire of West Arthur includes the towns of Darkan, Duranillin, Moodiarrup, Bowelling and Arthur River. The almost three thousand square kilometres of this shire includes rivers that fall into the north eastern reaches of the transitional rainfall zone of the Blackwood Catchment. Lake Towerinning, fresh until the 1970's, is a significant lake in the area.

First European exploration was by Bannister and his party in 1830 and names of landmarks in the area, such as Hillman Rock, indicate the exploration of Hillman and possibly others following Bannister's journey. A journal printed in the Perth Gazette in 1837 describes four water sources used by a Mr Harris as he journied through the area. The Kojocup Spring provided good, fresh water, the Beaufort River had a very large pool of fresh water, the Arthur River had a combination of fresh and salt water pools and the Hillman River provided excellent water.

Settlement by Europeans was initially between the Beaufort and Arthur Rivers in the 1850's and grazing leases were granted in 1854 with the heritage listed "Woagin" Homestead of Arthur River built in the 1860's. As was the case in other areas, the first settlers relied on soaks and wells before they built dams and rainwater tanks for their water supply.

The Gibbs family were the first European settlers in the Darkan area in 1867, and other families followed. Darkan was declared as a town in 1905 and the local community considers that "development" only started in the 1920's. The Hillman Dam, built in the 1930's is fed by channels over one mile long that were built by hand and concreted to bring water from Hillman Rock.

Marron and Perch were fished in the area until their disappearance in the 1950's and Whittington's contour banks are now used extensively in the shire in an effort to combat rising salinity levels. Farming still includes sheep and cattle production but local industry now also includes timber production and tanning.

WEST ARTHUR	
"Woagin": Williams Loc 13903	WA 1
Lake Towerinning	WA 2
Trigwells Bridge: Moodiarrup	WA 3
Bowelling Railway Station	WA 4
Namine Swamp	WA 5
Arthur River: E of causeway and S of Moodiarrup	WA 6
Shepherd's Well in creek	WA 8
Covernment well by Dardadine Siding (like "rain water")	WA 9
House well ("always muddy")	WA 10
Historic route: Bannister and Smythe	WA 11
Arthur River Group: Lot 1 excised from Williams Loc 36 and Reserve 21211 (Old Mail Coach Staging Post)	
Arthur River (fresh and salt water pools)	
Beaufort River (very large pool of fresh water)	
Hillman Dam (brings water from Hillman Rock)	
Hillman River	
Tarwonga Rock	
Kojocup Spring	

HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF WEST ARTHUR

4.2.18 Wickepin

The Shire of Wickepin lies within the northern range of the Blackwood Catchment covering nearly two thousand square kilometres with a sparse population of nearly one thousand people. The small towns in the shire are Harrismith, Tincurring, Toolibin, Wickepin and Yealering. This area has been brought to the attention of West Australians thriough the popularisation of Albert Facey's story, "A Fortunate Life" and the Albert Facey Homestead is considered by the local community to be a significant heritage location.

Before the railway was extended to Wickepin in 1909, Tarling, known as East Narrogin, has been the main settlement for commercial and social activities for the area. Tarling Well, also known as White well, built around 1905, became the focus for a small settlement when land in the vicinity was opened up for selection in 1893. This settlement was the point of delivery for the postal service and a resting stop for travellers between Narrogin and Gillimanning. The Potts family were the first to settle the area, around 1895. The Hall at Tarling was built from clay bricks, the pits from which they were made are still in evidence beside the road. Although the trenching of the foundations still remain, the hall was demolished in 1917 and the bricks used in constructing the Wickepin Shire Hall.

Albert Facey and his family settled in the area in the winter of 1922, under the Government's Soldier Settlement Scheme. By the 1920s, wheat was beginning to outstrip gold as the major income earner for the state, and that, with sheep, was the mainstay for the Facey's income. As with many other farmers of the time, the impact of the Great Depression and the severe rabbit plague, caused the Facey's reluctant move to Perth in 1934.

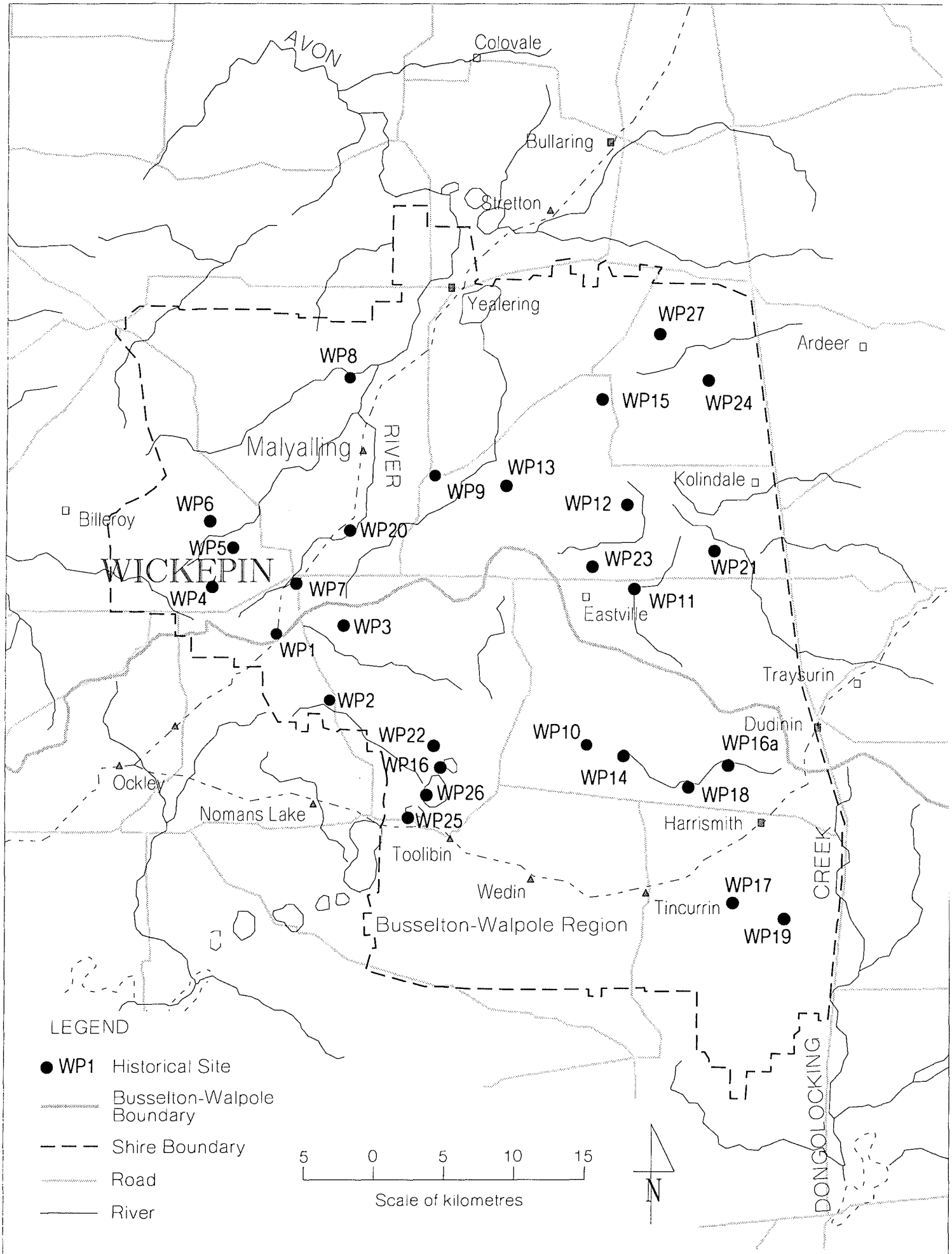
The Shire has several significant lakes which include Yealering, the main feature of a town by the same name. Land surrounding the Lake was first released in the 1870s and was a valuable fresh water source for settlers and the means with which Yugoslav migrants established a market garden. Other lakes are Toolibin and Taarblin which began to show signs of salinity in the 1950s. Big and Little White Lakes and Billy Lake, showed salinity a short time later, in the 1950s and early 1960s, and Dulbinning and Walbyring Lakes also showed signs of salinity in the 1960s.

In the early years of settlement in this shire, numerous dams and wells were constructed, some of which are still in existence today, but the main water supply is now a large tank situated on a hilltop and supplying Yealering, Kondinin and Dumbleyung. The water comes from the Wellington Dam near Collie.

Primary production in the shire has not changed a great deal since early European settlement, the main farming activities are still grains and livestock production.

WICKEPIN	
Railway Catchment (old steam trains)	WP 1
Levi Rock Well: Main water point for locals	WP 2
White Well: 110 feet deep, key water supply near Levi Rock	WP 3
Railway Tank and Stand	WP 4
Inkiepinkie well near old school	WP 5
Mungerungercutting Well	WP 6
First town well in Wickepin (still evident)	WP 7
Bealgaring Rock Hole	WP 8
Malyalling Rock: water supply for farmers	WP 9
Mollonolling Soak	WP 10
Quanaminning Soak	WP 11

WICKEPIN (cont.)	
Gingining Spring (still used for house water supply)	WP 12
Malyalling East Stock Route Dam	WP 13
Scrivener Soak	WP 14
Badenning Soak	WP 15
Balgulpinn Soak	WP 16
Dulbining Lake	WP 16
Peecanning Soak	WP 17
Babbebilly Soak	WP 18
Gnorlarling Soak: old school site	WP 19
Burdenalling Soak	WP 20
Cuballing Spring	WP 21
Dingerlin Well	WP 22
Boorning Soak	WP 23
Cuterning Spring	WP 24
Walbyring Lake	WP 25
Toolibing Lake: trees on bed still green	WP 26
Wagabanering Spring	WP 27
Albert Facey Homestead	
Bibbleverring Pool	
Boyline Soak	
Catchment rocks put in place by prisoners of war	
Cuneenying Spring	
Dam: 7 Mile Reserve: water supply for droving stock route	
Fleays Farm: 90 feet well, fresh water	
Fred Well: water for Gillimaning townsite	
Gillimaning Spring	
Historic route: Stock Route Dam: Elsimore Rd, Wocolin South Rd	
Historic route: White Well: Wickepin-Pingelly Rd & Commodine Rd	
Inkiepinkie School (mud bricks from nearby creek)	
Lake Yealering	
Namma Hole: Fleays Farm first supply of fresh water	
Old House: Lake Yealering	
Pingerlin Well	
Poraking Soak	
Stock Route Pan: 10 mile old hall	
Tank	
Tarling Well	
Walters Hill	
Wickepin Lodge	
Wickepin Reservoir	
Wickepin Springs: key supply still fresh today	
Wocolin School: stock route dam	
Wogolin Soak	
Yanyening Spring	
Yarling Brook	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF WICKEPIN

4.2.19 Williams

The Shire of Williams includes the towns of Quindanning, Dardadine, Tarwonga and Williams. It is 2,295 square kilometres in size and includes 15% of the Blackwood Catchment within its boundaries.

The town of Williams achieved some notoriety for being the point at which Captain Bannister's surveyor companion, Smythe, decided to pursue his instincts rather than his instruments and in 1830 led the party on the exasperating journey which led them to Albany via the Walpole and south coast region. Colourful descriptions of the skills and expertise displayed by Smythe have enlightened readers of explorer's journeys to the trials and difficulties explorers faced in those times. Their journey was over the summer season and describes many of the sources of water they utilised, including Namine Swamp, south of the Williams River, and Starting Creek Campsite at the junction of Williams River and Starting Creek, which also served as a campsite for Hillman and Harris in 1835, Stirling and Roe in 1835, and Lt Bunbury in 1836.

Soon after Bannister's journey, settlers arrived in the area following the track that was then known as the "old Sound Road" connecting Albany with Perth. Many remains of old culverts and gravel pits from this original road are still in evidence. The York Road Well, north of Williams, was established in 1836, and the Harris Farm building near the William's River was built in 1836.

The Williams Rivers crossing was the site of the military barracks and many other crossings in the shire have been given importance as significant sites by the local community.

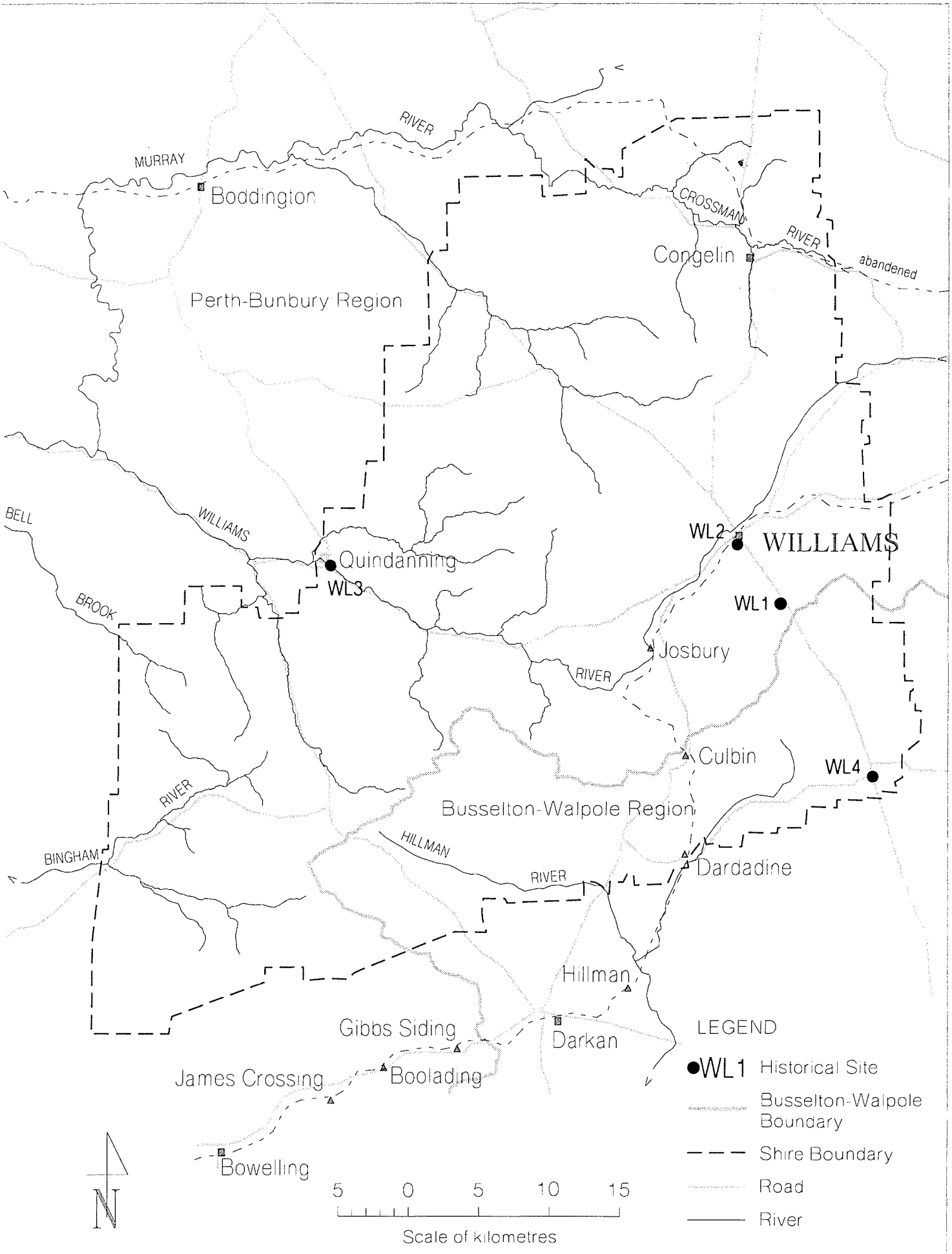
The first bridge was built by convicts in 1855, near the current bridge in Williams and many others followed. A convict tank known as "The Old Well" was an underground tank constructed of bricks and cement which supplied the old post office from the 1880s and is still intact.

A flour mill powered by a steam engine was built within the town boundary of Williams in 1870. Clearing for agriculture has resulted, not only in increased salinity, but also in a number of pools filling with sand worked down from land clearing. These include Jennemaitin Pool at the junction of Williams River and Jerremaitin Creek, Pumphries Pool and Baptising Pool, also the site of the Baptist Church. Mandiacking Pool is the largest pool in the shire.

The Shire of Williams lists the income of the area as being from wool, cattle, grain and tourism.

WILLIAMS	
Gregory's Well (S of Williams)	WL 1
Williams Flour Mill (powered by steam, 1870)	WL 2
Williams River crossing: site of barracks	WL 2
Convict tank	WL 2
Williams River: bridge site	WL 2
Quindanning Bridge (built by convicts)	WL 3
Tarwonga School and Inn	WL 4
"Boraning": via Williams	
"Millbrook"	
Baptising Pool	
Beaufort River Crossing	
Bennet Bridge (crossing over the Arthur River)	
Boraning Bridge	
Crossing Pool (on the Hotham River)	
Harris Farm Building (near Williams River)	
Historic route: Bannister & Smythe	

WILLIAMS (cont.)
Jerremaitin Pool (junction of Williams River & Jerremaitin Ck)
Jerremaitin Creek (S of Williams River)
Mandiacking Pool (largest in Williams Shire)
Pollard's Pool (W of Williams)
Pumphries Pool
Qualeup
Starting Creek Campsite (junction of Williams River & Startin Creek, camping site for explorers and surveyors)
Strangers Pool (Josbury Rd siding)
Swamp lands N of Mettebinup Brook
The Old Well (convict tank)
The Wash Pool (stoned washpool, 200 m from junction of the Williams River and Starting Creek).
Wahkinup Brook (N of Maganup-Kojonup Rd)
Warrening Gully crossing (N of Williams River)
Wildhorse Creek (crossing on tributary of Hillman River)
Williams Agricultural Hall
York Rd Well (N of Williams)



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF WILLIAMS

4.2.20 Woodanilling

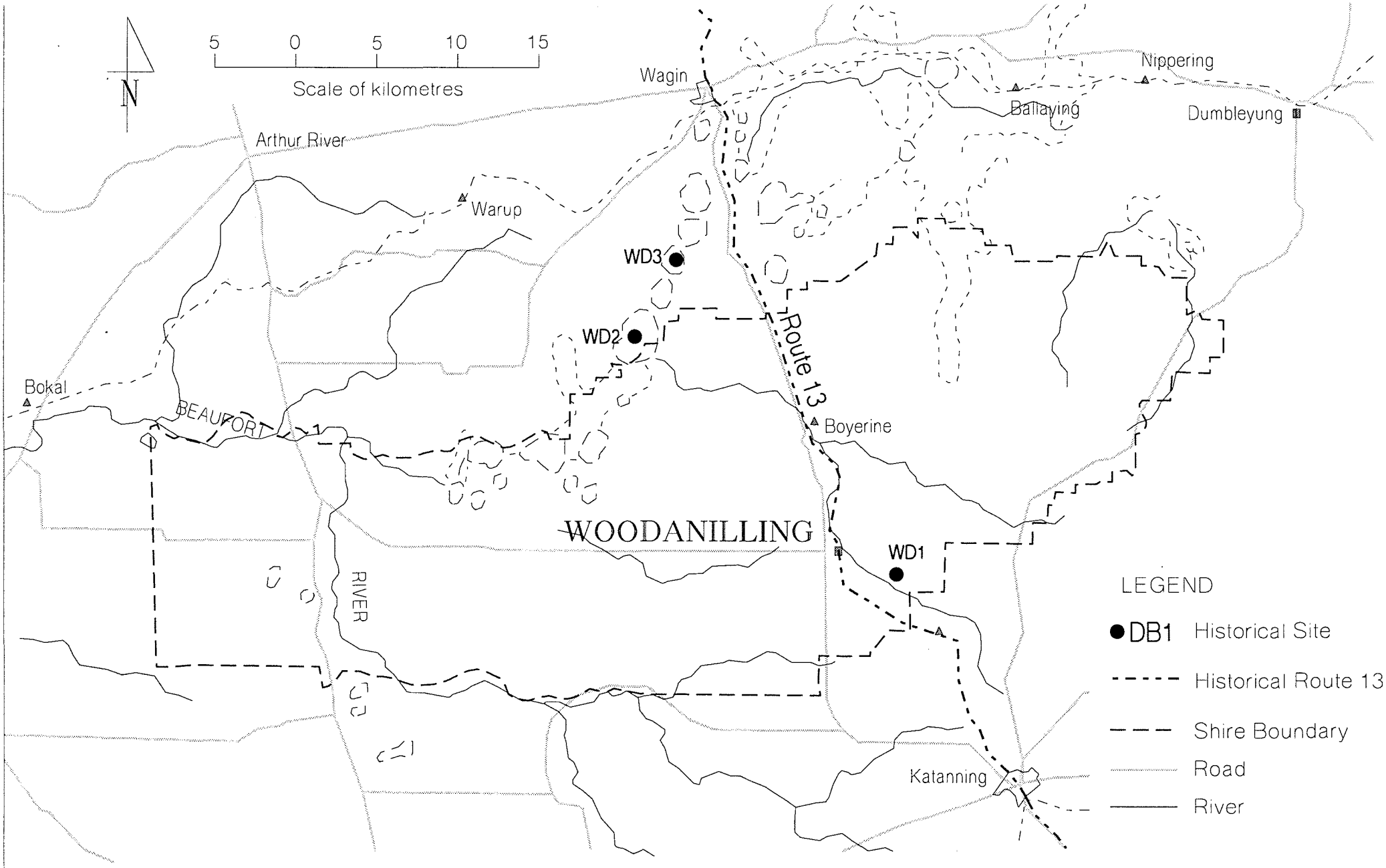
The Shire of Woodanilling is a small shire of just over one thousand square kilometres, located between Katanning, Wagin and Kojonup. The only town in the shire is Woodanilling and the total population for this shire is just under five hundred people.

The expedition of Stirling and Roe in 1835 is noted as the first exploration of this district by Europeans. Descriptions of Lake Norring, the Boyerine Creek and a chain of lakes expected to flow into the Beaufort River to the north-east of their route, are made in the journals of this exploration.

An early settler, Edward Hamersley, took leases and freehold land near Martup Hills, Dungalaring Spring and near Beaufort Bridge in 1854. As with other early settlements elsewhere, the springs and rivers proved the first locations to be settled in what was known as "peacocking", in which the best land was settled with the remainder left to be taken up by others later on.

Two locations are listed by the National Trust in this shire. They are Kalang Farm on Shenton Road and "The Lakes". Wool and grain are the main farming activities in the area.

WOODANILLING	
"Kalang Farm": Shenton Rd	WD 1
Lake Norring	WD 2
Quarbing Lake	WD 3
Historic Route: Great Southern Railway	Route 13
"The Lakes"	
Boyerine Creek	
Dungalaring Spring (Martup Hills, Edward Hamersley's lease on Beaufort River)	
Historic route: Stirling & Roe Expedition	
Jogoninning Spring: Bannister Townsite (junction of the Arthur and Beaufort Rivers)	



HISTORICAL SITES ASSOCIATED WITH WETLANDS AND RIVERS IN THE SHIRE OF WOODANILLING

5.0 RECOMMENDATIONS AND CONCLUSIONS

1. Water Authority archives need to be searched for cataloguing of specific water developments. For instance, where possible, documentation of the earliest farm dams, and dams on creek lines, the earliest windmills for water pumping, the first bores, earliest rock catchments, were not located in this study and would presumably have significance for the Western Australian community. Archives may also reveal aspects of water quality. In addition inventories of sites of cultural heritage are currently being compiled by municipalities, and should be accessed in subsequent work.
2. In order to avoid losing aspects of European historical associations with wetlands and rivers which are within living memory, there is a priority for oral histories to be conducted by relevant research agencies.
3. There is a need for research to be undertaken to re-read the original diaries of explorers and settlers and present a wetland and river perspective of early south-western Australia. Such a study would provide an historical context to an examination of Western Australian attitudes and perceptions of water use, and wetland and river values.
4. The listings of sites in this report should be regarded as incomplete; new evidence for the locations of important historical sites will continually come to light,. In addition, as social values change with time, new sites will emerge as being culturally significant.
5. Agencies responsible for the management of waterways, and developments associated with these, should recognise that patterns of European historical associations with rivers and wetlands, are as informative as the sites themselves. This recognition will allow those managers to gather more easily detailed information at any development site.
6. In undertaking an assessment of any site for development, the individual sites listed in this report and any found subsequently need to be referred to the relevant local community in order to assess "cultural significance".
7. Agencies responsible for the management of waterways must recognise the value of historical data in the determination of objectives for restoration of those waterways.
8. Acknowledgements

We are grateful to the Water Authority of Western Australia for funding this work and for providing us with the opportunity to view the management of rivers and wetlands through the eyes of the historian. In WAWA, Mr Peter Williams gave us support and sound advice, and commented on a draft of the report, and Mr Peter Van de Wyngaar prepared and produced the GIS maps for each shire from our maps.

We would also like to acknowledge the assistance we received from Ms Shona Kennealy, who acted in an honorary advisory capacity for the project, made comments on a draft report, and drew our attention to reference material. Ms Helen Martin and Dr Mark Lund drew our attention to material they had collected for their study which was applicable to our region. The project was completed using facilities of the Centre for Ecosystem Management at the Edith Cowan University, Joondalup.

Finally, the work would have been less thorough and less authoratitive had it not been for the input given to the project by local historians and shire offices.

6.0 REFERENCES AND BIBLIOGRAPHY

Anderson, R. (ed)(1988). **Katanning - A Century of Stories**. Katanning Shire Council, WA

Anon (1926). **A souvenir of the golden west from the New Settlers League, Western Australian Division**. Perth, WA: The League, 1926.

Anon (1988). **A Guide to the Bibbulmun Track**. Dept. of Conservation & Land Management: Como, WA.

Anon (1988). **Voices of the Bush** . Dept of Conservation and Land Management: Como, WA.

Anon (1979) **Early Memories**. Broomehill Historical Society.

Anon (no date). **Holland Track - Broome Hill to Bayley's Rush 1893 - 1993**. Broomehill Historical Society.

Appleyard, R.T. (1981). **Western Australia: Economic and demographic growth 1850-1914**. In A New History of Western Australia. Ed. C.T.Stannage. University of Western Australia Press, Perth, WA. pp. 211-236.

Appleyard, R.T. and Manford, T. (1979) **The Beginning: European Discovery and Early Settlement of Swan River Western Australia**. UWA Press: Perth.

Berndt, R.M. (1973). **Aborigines of Southwestern Australia: the past and present**. In Aboriginal man in Southwestern Australia. Eds D.Merrilees, , W.C. Dix, S.J.Hallam, W.H. Douglas, and R.M. Berndt. Journal of the Royal Society of Western Australia, Vol. 56 parts 1&2.

Berry, C. (1987). **The History, Landscape and Heritage of the Warren District**. On behalf of the National Trust of Australia (WA) and for the Shire of Manjimup. Geography Dept. University of WA.

Bignell, M. (1981). **A Place to Meet**. Shire of Katanning. University of Western Australia Press: Perth.

Bignell, M. (1982). **First the Spring**: A History of the Shire of Kojonup, Western Australia. University of Western Australia Press: Nedlands.

Bignell, M. (ed)(1991). **All Their Might - Tales of the Shire of Kojonup, Western Australia**. Kojonup Historical Society, Western Australia.

Blond, P.E.M. (1987). **A tribute to the group settlers**. Nedlands, WA: University of Western Australia Press for the Carles and Jay Staples South West Region Publications Fund Committee.

Bolton, G. (1981a). **Spoils and Spoilers.** Australians make their Environment. George Allen and Unwin, Sydney.

Bolton, G. (1981b). **Black and white after 1897**. In A New History of Western Australia. Ed. C.T.Stannage. University of Western Australia Press, Perth, WA. pp. 124-180.

Burton Jackson, J.L., Petchell, B. and Higham, M. (1993). **Frowning Fortunes**. The Story of Thomas Bannister and the Williams River District. Hesperian Press.

Chate, A.H. (1935). **The Williams**. The Western Australian Historical Society Inc. Journal and Proceedings, IV, 5, 1935.

Christensen, P., Pentony, K. and Schmidt, W. (1981) **The Blackwood**: A Valley in Transition. Forests Dept. of Western Australia: Perth.

Clark, A.H. (1979). **Kulin's pioneer days**. In A Bold Yeomanry. Social Change in the Wheatbelt District, Kulin 1848-1970. W.E. Greble. Creative Research and the Kulin Shire Council, Perth.

Cowin, H.G. (1971). **The Williams**. Shire of Williams, Western Australia.

Coy, N. (1979). **Freshwater Fishing in South-west Western Australia**. Jabiru Books, WA.

Cresswell, G. (1989) **Light of the Leeuwin**. Augusta -Margaret River Shire Council, WA.

Dargavel, J. (1994). **Constructing Australia's forests in the image of capital**. In Australian Environmental History. Essays and Cases. Ed S. Dovers. Oxford University Press, Australia. pp. 80-98.

de Garis, B.K. (1981). **Political Tutelage**. In A New History of Western Australia. Ed. C.T.Stannage. University of Western Australia Press, Perth, WA. pp. 297-325.

Evans, M.D. (1993). **Southern Sketches: the tale of the development of the Warren and nearby districts**. Dept of Agriculture, South Perth, WA.

Facey, A.B. (1981). **A Fortunate Life**. Penguin.

Fernie, L. & G. (1989). **In Praise of a National Park**. The Origins and History of the Walpole-Nornalup National Park. Published by the authors, Walpole, WA.

Frawley, K. (1994). **Evolving visions: environmental management and nature conservation in Australia**. In Australian Environmental History. Essays and Cases. Ed S. Dovers. Oxford University Press, Australia. pp. 55-78.

French, J. (1989). **Tale of a groupie's son**. Augusta, WA: J. French, 1989.

Froend, R.H., Farrell, R.C.C., Wilkins, C.F., Wilson, C.C. and McComb, A.J. (1993). **The effect of altered water regimes on wetland plants**. Volume 4, Wetlands of the Swan Coastal Plain. Water Authority of Western Australia.

Froend, R.H., Heddle, E.M., Bell, D.T. and McComb, A.J. (1986). **Effects of salinity and waterlogging on the vegetation of Lake Toolibin, Western Australia**. Australian Journal of Ecology 12: 281-98.

Frost, A.C. (1976). **Green Gold - A History of Donnybrook 1842-1974**. The Author: Donnybrook/Balingup Shire Council.

Frost, A.C. (1979). **Baylya-Balinga - A History of Balingup**. Donnybrook, WA: Donnybrook/Balingup Shire Council.

Gabbedy, J.P. (1988). **Group settlement. Part 1: Its origins: politics and administration**. Nedlands, WA: University of Western Australia Press, 1988.

Gabbedy, J.P. (1988). **Group settlement. Part 2: Its people: their life and times: an inside view**. Nedlands, WA: University of Western Australia Press. 1988.

Gilbert, C. (no date). **History of Nannup**. Nannup Shire Council.

Green, N. (1981). **Aborigines and white settlers in the nineteenth century**. In A New History of Western Australia. Ed. C.T.Stannage. University of Western Australia Press, Perth, WA. pp. 72-123.

Harris, A. (1837). **Journey overland from King Georges Sound**. Perth Gazette 18th March 1837.

Hopper, S.D. (1992). **Patterns of plant diversity at the population and species levels in south-west Australian Mediterranean ecosystems**. In Biodiversity of Mediterranean Ecosystems, Ed. Hobbs, R.J.. Surrey Beatty and Sons, Chipping Norton, pp. 27-46.

Horwitz, P. (1994). **Translocated aquatic fauna**. In Feral Fauna of the South-west (Siewert, R., Robinson, N. and Horwitz, P. eds.) Conservation Council of Western Australia, Perth, WA.

Humphries, S.E. et al. (1991). **Plant invasions of Australian ecosystems**. A status review and management directions. Kowari 2. Australian National; Parks and Wildlife Service, Canberra.

Hunter, P. (1984). **Phoebe remembers: a first account of the group settlement scheme in Pemberton Western Australia during the early 1900's**. Compiled and edited by the Pemberton-Northcliffe Tourist Bureau. Pemberton, W.A: The Bureau, 1984.

Klemm, T. (1969). **A History of Dumbleyung**. Advance Press.

Laurie, M. (1994). **Frankland to the Stirlings**: A history of the Cranbrook Shire. Shire of Cranbrook, WA.

Le Page, J.S.H. (1986). **Building a State**. The Story of the Public Works Department of Western Australia 1829-1985. Water Authority of Western Australia, Perth.

Lines, W.J. (1991). **Taming the Great South Land**. A History of the Conquest of Nature in Australia. Allen and Unwin, North Sydney.

Lines, W.J. (1994). **An All Consuming Passion**. Origins, Modernity and the Australian Life of Georgiana Molloy. Allen and Unwin, St Leonards, New South Wales.

Marquis-Kyle, P. and Walker, M. (1992). **The Illustrated Burra Charter**. Making Good Decisions About the Care of Important Places. Australian Heritage Commission, Canberra.

McFarlane, D. & J. (eds) (1994). **Reversing the trends**: proceedings of a seminar organised by the Frankland Below Gordon Land Conservation District Committee.

Mills, J (1986). **The Timber People**. A History of Bunnings Limited. Bunnings Ltd.

Morrissy, N.M. (1978). **The past and present distribution of marron Cherax tenuimanus (Smith) in Western Australia**. Fisheries Research Bulletin 22, Department of Fisheries and Wildlife, Perth, WA.

Morrissy, N.M. and Cassells, G. (1992). **The spread of the introduced yabbie Cherax albidus Clark, 1936 in Western Australia**. Fisheries Research Report No. 92, Fisheries Department of Western Australia.

Pustkuchen, O.E. (1981). **The Way Through**: The Story of Narrogin. Artlook Books.

Richards, R. (1978). **The Murray District of Western Australia**: A History. Shire of Murray.

Sanders, A. (1987). **Oral Histories Documenting Changes in Wheatbelt Wetlands**. Department of Conservation and Land Management: Como.

Schofield, N.J., Ruprecht, J.K., and Loh, I.C. (1988). **The Impact of Agricultural Development on the Salinity of the Surface Water Resources of South-west Western Australia**. Report to the Steering Committee for Research on Land Use and Water Supply. Water Authority of Western Australia. Report No. WS27.

Scorer, A. (1968). **History of the Upper Blackwood**. South-west Printing and Publishing Co. Bentley, Wa.

Shann, E.O.G. (1926). **Cattle Chosen**. University of Western Australia Press, Perth, WA.

Snooks, G.D. (1981). **Development in adversity 1913-1946**. In A New History of Western Australia. Ed. C.T.Stannage. University of Western Australia Press, Perth, WA. pp. 237-266.

Southcombe, M.R.H. (1988). **To call our own: pioneering the group settlements**. Carlisle : Hesperian Press 1988.

Sparkes, H. (Ed.)(1994) **Donnybrook Community Profile**. South West Development Commission: Bunbury.

Statham, P. (1981). **Swan River Colony 1829-1850**. In A New History of Western Australia. Ed. C.T.Stannage. University of Western Australia Press, Perth, WA. pp. 181-210.

Terry, F. (1978). **They came to the Margaret**. South West Printing and Publishing Company, Bunbury, WA.

Trautman, E. and Trautman, J. (1980). Jinkers and Jarrah Jerkers. Published by the authors, Western Australia.

Wellburn, E. (c 1984). **Elizabeth and Bob**: a story of group settlement in the Pemberton area, Western Australia. WA: E. Wellburn

Western Australia. **Royal Commission on Group Settlement**. Report of Royal Commission on Group Settlement. Perth: Gov Printer, 1925.

Western Australian Water Resources Council (1992). **The State of the Rivers of the South West**. Western Australian Water Resources Council, Leederville, Western Australia.

Wood, W.E. (1924). **Increase of salt in soil and streams following destruction of native vegetation**. J. Roy. Soc. West Aust. 10: 35-47.

APPENDIX A

Package for Respondents

EDITH COWAN
UNIVERSITY
PERTH WESTERN AUSTRALIA
JOONDALUP CAMPUS

Joondalup Drive, Joondalup
Western Australia 6027
Telephone (09) 400 5555
Facsimile (09) 300 1257

Phone: (09) 2728645

June 20th, 1995

«Title» «First Name» «Last Name»
«Position»
«Company»
«Address»
«City» «Postal Code»

Dear «Title» «Last Name»,

STUDY OF THE HISTORICAL USE OF WATER

We are compiling a report on the historical use of water in the south west of Western Australia. This report will provide the Water Authority of Western Australia with detailed information pertaining to historical values of wetlands and waterways with which to plan development of water resource allocation. The geographic bounds of the study are Busselton, Walpole and the extent of the Blackwood River catchment (see attached map).

If you need any further information on compiling the information, please phone us as soon as possible. A field trip is planned to visit those regions with significant information to provide local historians with the opportunity to pass this on in person on site. We are also interested in any documentation or publications concerning European History of water or wetlands in your area.

Please help us by filling in as much as possible of the enclosed questionnaire and either mail it to us at the above address or,
Fax it to 4005717.

As we have a tight schedule to comply with our contract, we would be pleased to receive this information **no later than the 10th July.**

Thank you for your help!

Angela Wardell-Johnson
Research Assistant
for
Pierre Horwitz
Principal Researcher

NAME:		
ADDRESS:		
		Code:
TELEPHONE:	Home:	Work:

HOW TO DO THE QUESTIONNAIRE....

- We need your name, address and telephone number;
- Please fill in the location you are telling us about;
- Fill in any details you have on the form;
- Mark the location on the attached map with the corresponding number & letter, like this: (1A) ;
- Any useful publications?
- Do you have any publications or information for sale or to give away?
- Please let us know any information you have on names and costs that will enable us to follow up;
- Please return the questionnaire and map to us in the enclosed envelope by the 25th of June, 1995;
- We will acknowledge your contribution and let you know about the final report.

Questionnaire example:

LOCATION: *Augusta*			
Land use activity:	Location and type of water used:	Map no.	Years
First European exploration: 1	A *Ships took on water in the small cove in the mouth of the Blackwood River*	*1A*	*1830-1935*
	B		

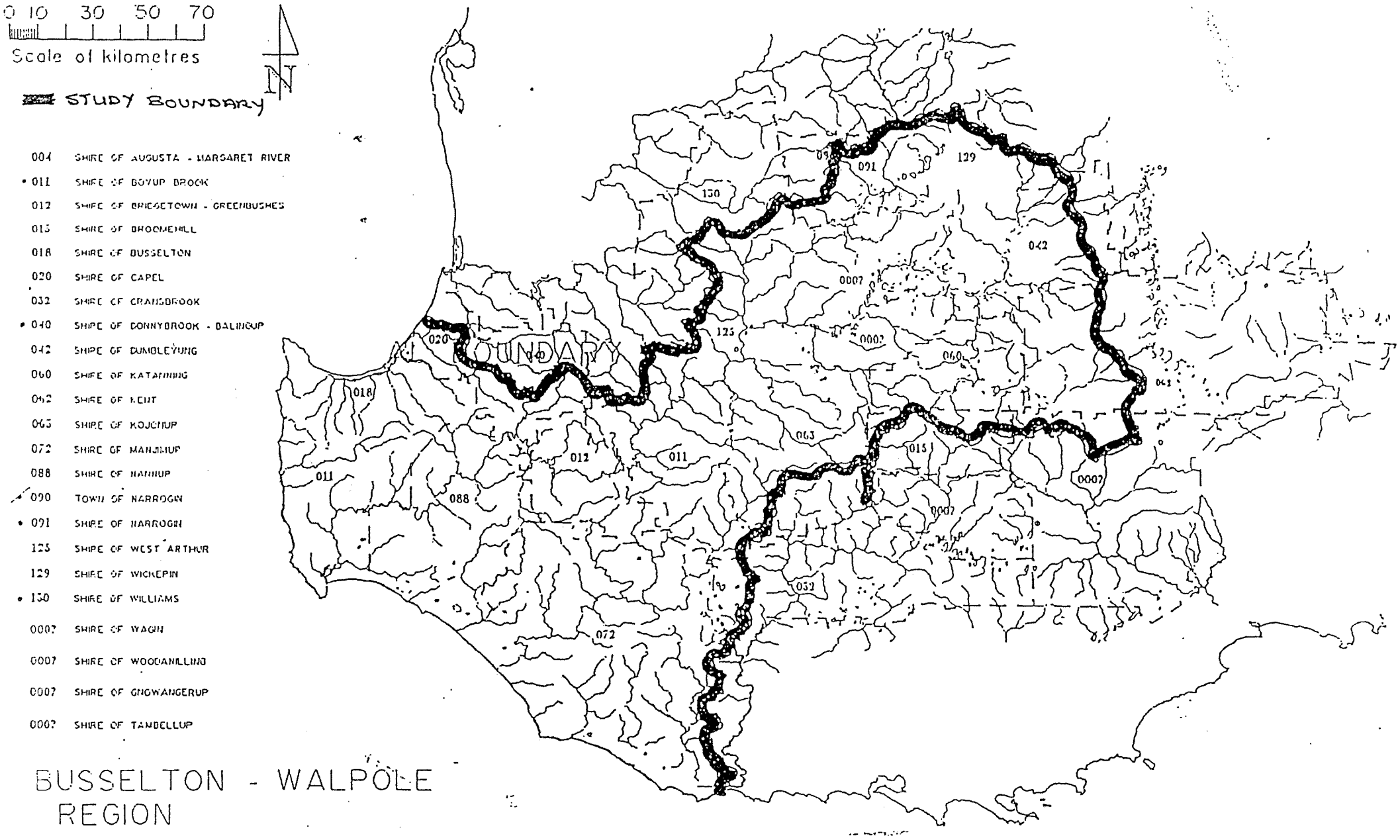
PUBLICATIONS:

Author:	Name of publication:	Where is it available?	Cost?

THE QUESTIONNAIRE

LOCATION:			
Land use activity:	Location and type of water used:	Map no.	Years
First European exploration: **1**	A		
	B		
Early settlement and farming development: **2**	A		
	B		
Water supply development: domestic: **3**	A		
	B		
	C		
	D		
Water supply development: irrigation: **4**	A		
	B		
Land drainage: wetlands etc. **5**	A		
	B		
Reservation of waterways: **6**	A		
	B		
Anecdotal records of water quality: **7**	A		
	B		
Timber industry development & water utilisation **8**	A		
	B		
Historical utilisation of aquatic flora & fauna: **9**	A		
	B		

Publications: Y=yes; N=no	Information held		Book/ Publication		Report/ Unpublished info.		Unsure	


0 10 30 50 70
Scale of kilometres
N
STUDY BOUNDARY
004 SHIRE OF AUGUSTA - MARGARET RIVER
• 011 SHIRE OF BOYUP BROOK
012 SHIRE OF BRIDGETOWN - GREENBUSHES
015 SHIRE OF BROOMEHILL
018 SHIRE OF BUSSELTON
020 SHIRE OF CAPEL
032 SHIRE OF CRANBROOK
• 040 SHIRE OF DONNYBROOK - BALINGUP
042 SHIRE OF DUMBLEYUNG
060 SHIRE OF KATANNING
062 SHIRE OF KENT
063 SHIRE OF KOJONUP
072 SHIRE OF MANJIMUP
088 SHIRE OF NAPIER
090 TOWN OF NARROGIN
• 091 SHIRE OF NARROGIN
125 SHIRE OF WEST ARTHUR
129 SHIRE OF WICKEPIN
• 130 SHIRE OF WILLIAMS
0007 SHIRE OF WAGIN
0007 SHIRE OF WOODANILLING
0007 SHIRE OF GNOWANGERUP
0007 SHIRE OF TAMBELLUP
BOUNDARY
BUSSELTON - WALPOLE
REGION

EDITH COWAN
UNIVERSITY
PERTH WESTERN AUSTRALIA
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2 November 1995

«Title» «First Name» «Last Name»
«Position»
«Address»
«City» «State/Province» «Postal Code»

Dear «Title» «Last Name»,

DRAFT SUMMARY OF REPORT INTO HISTORICAL USE OF WATER

We have over the past few months been compiling a report on the historical use of water in the south west of Western Australia.

The study set out to document important historical sites which present a picture of the way in which Europeans have been associated with rivers and wetlands of the region since settlement. In particular, the Water Authority's objective is to ensure that important historical sites are not ignored in any water allocation decision it might have.

The study has amassed a large database of sites and locations taken from histories and old maps of local areas. It has showed the value of fresh potable water to early settlers, and the way these resources dictated the locations of early buildings and early transport routes.
These structural features of society are still in existence today, despite the fact that many of the resources themselves are somewhat degraded and in need of restoration.

The input of «Other Contact» of your shire and the shire council has been invaluable in this process and now we would be grateful if you would take this opportunity to review our summary information.

The most important issues we would like you to address are:

- **verification of locations of historic sites**
- **locations of any sites not listed**
- **historic routes through your shire**
- **emphasis of historic development in summary**

Please fill in as much of this information as you can. We need the information back to us in two weeks time, **Friday the 17th of November**, either by mail in the enclosed envelope or by **Fax to 4005717.**

Should you need any further information please contact me on (09) 2728645, Monday to Wednesday, 9am to 2.30pm. Thank you once again for your assistance in this important report.

Yours sincerely

Angela Wardell-Johnson
for Dr Pierre Horwitz

APPENDIX B: SURVEY RESPONDENTS

Mr Michael Archer	Shire of Katanning
Mr Reece Barrett	Shire of Cranbrook
Ms Anne Bettison	Dept. of Agriculture
Ms Merle Bignell	Kojonup Local Historical Society
Mrs Diana Chase	On behalf of Shire of Capel
Mr Ned Crossley	Dept. of Agriculture
Mr J.Epiro	Shire of Williams
G. & L. Fernie	Local historians, Walpole-Nornalup
Mr Ian Fitzgerald	Shire of Kent
Mrs Beryl Gardner	Augusta-Margaret River Local Historical Society
Mr Matt Gieraudo	Dept. of Agriculture
Mrs Mary Gillam	Gillamii Landcare Centre
Ms Penny Joyce	Shire of Manjimup
Mrs Valerie Krantz	On behalf of Shire of Capel
Ms Jean Little	Manjimup Historical Society
Miss S. MacDonald	Broomehill Local Historical Society
Mr Geoff McKeown	Shire of Narrogin
Mr Bruce Mead	Shire of Wickepin
Mrs K. Mouritz	Busselton Historical Society (Inc)
Mr Gary Muir	Local historian, Manjimup
Mr Mal Osborn	Shire of Katanning
Mr Chris Pepper	Shire of Dumbleyung
Mr John Perrett	Shire of Kojonup
Mr Tom Perry	Local historian, Darkan
Mr Bill Petchell	Local historian,
Ms. Prue Pocock	Nannup Tourist Centre
Mr Ken Ritson	Boyup Brook LCDC
Mr Lok Stephens	Local historian, Nyabing
Mr R.I. Stewart	Shire of Bridgetown-Greenbushes
Mrs Joan Timperley	Local historian, Kukerin
Tourist Committee	Shire of West Arthur
Ms Nicki Wallace	Tourist Association, Dumbleyung
Ms Irma Walter	Local historian, Donnybrook
Mr Noel Welsh	Shire of Donnybrook-Balingup
Mrs Lyn White	Local historian, Darkan
Mr Maurie White	Old Courthouse Museum, Narrogin
Debbie	Boyup Brook Tourist Centre

APPENDIX C

Complete Data on Historical Associations of Waterways and Wetlands in the Busselton-Walpole Region.

The table that follows shows the complete information provided by respondents to survey inquiries and that provided by historic texts and references.

The information is recorded as closely as possible to that provided, with dates and map references correlated with the source of each record.

Key to Land use activity:

1	First European exploration.
2	Early settlement and farming development.
3	Water supply development: domestic.
4	Water supply development: irrigation.
5	Land drainage: wetlands etc.
6	Reservation of waterways.
7	Anecdotal records of water quality.
8	Timber industry development and water utilisation.
9	Historical utilisation of aquatic flora and fauna.

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
AUGUSTA - MARGARET RIVER		• 2,370 sq kms			The Western Australian
		• population: 6, 500			Municipal Directory: 1994 - 1995
		• towns: Augusta, Margaret River, Cowaramup, Gracetown, Prevelly Park, Witchcliffe, Karridale, Rosa Brook.			The Western Australian Municipal Association.
		• significant historical attractions: Museum in Augusta, Group Settlement Project, Rotary Park, Margaret River.			
		• industry: dairying, beef, sheep, fishing, timber, horticulture, viticulture, cottage industry, aquaculture.			
	2	Ellensbrook Farmhouse, Dam and Waterfall Sussex Loc 4694, Reserve 22673	AM 1 nr Caves Rd, Marg River	1855	Heritage Council of WA
	1	Hamelin Bay: Exploration started in this area		1772	Hamelin Bay Wreck Trail: WA Heritage Trails Network
	8	MC Davies, timber merchant, acquired rights to forests, based at Karridale with outports at Hamelin and Flinders Bays.		1882	
		Hamelin Bay Jetty built	AM 10	1882	
	1	Probably crew of Leeuwin in search of water, found in Leeuwin Spring.	004	1622	Mrs. Beryl Gardner P.O. Box 111 AUGUSTA 6290 Ph: (097) 581837
		First white settlers		1830	
	2	Molloys, Turners & Bussels: Blackwood River water Unsuccessful farmers - poor soil, huge timber, lack of labour & tools		1830	
	3	Leeuwin Spring services Augusta (South) and was used by all Augusta township until 1995.	AM 18	1830 - 1995	
	8	10 convicts sent to Augusta to cut timber on banks of Blackwood River		1851	
		Ref: Light of the Leeuwin: pg 70 - 112: Eldrige & M.C. Davies		1851 - 1913	
	9	Whaling in Flinders Bay - chiefly Americans			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	2	Water Wheel			Australian Heritage Commission Canberra
		Deepdene	AM 20		
		Wallcliffe Homestead - Margaret River	AM 2		
		Basildene Farmhouse - Wallcliffe Rd, Margaret River	AM 11		
		Ellensbrook Farmhouse - Margaret River	AM 1		
	2	Alexandra Bridge: Sussex loc 4547, Res 25502	AM 17	1897	National Trust Perth
		One Teacher School House - Alexandra Bridge			
		Basildene: Lot 100	AM 11	1912	
		Cape Leeuwin Lighthouse Cottages and Lighthouse: sussex Loc 4195	AM5	1895	
		Darnell's Store - Redgate Rd, Witchcliffe	AM7		
		Ellensbrook Farmhouse, dam & waterfall: sussex loc 4694, res 22673	AM1	1850's	
		Flinder's Bay Settlement:			
		"Glenbourne" HomesteadPt Locs 354 & 886 & 673		1890	
		Old Karridale Davis Park: sussex loc 4917, res 42065		1890's	
		"Saddleton"			
		"Wallcliffe": Pt Sussex Loc 97	AM2	1865	
		Water Wheel, Cape Leeuwin: Sussex Loc 4195	AM3	1900	
		Ellensbrook (natural listing)	AM1		
		Old Mill Site, Karridale (Natural listing)	AM 13		
	1	Crew of Leeuwin - Flinders Bay, Augusta in search of water		1622	Cresswell, G.J. (1989). The Light of the Leeuwin. The Augusta-Margaret River Shire History Group. WA
		Kellam, Ludlow and Welburn walked Augusta to Perth		1831	
	1/2	Turner Park, Augusta (site of Turners prefab home)			
	1	Preston walked 40 km to Augusta along the coast		1831	
	2	"Datchet" - pg 46 - near Molloy home			
		"Adelphi" (Blackwood River, peninsular in river)	AM 21	1833	
		Augusta townsite, right bank of the Blackwood River, Molloy Is pg 48, Molloy			
		Scott River and Turner's Ck - Turner also property at Deepdene and	AM 20		

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Kuderdup			
		"Turnwood", and "The Spring" on the Blackwood (4 miles up) Thomas Turner		1840	
		journey by the Bussells from Augusta to Vasse pg 53	Route 8	1835	
		Barrack Point, Flinders Bay	AM 12	1839	
		Layman property near Cape Hamelin		1864	
	8	Ten convicts sent to Augusta to cut timber (banks of the Blackwood)		1851	
	2	"Ellensbrook"	AM 1	1854	
		"Wallcliffe"	AM 2	1865	
		Old Alexandra Bridge	AM 21	1898	
		Karridale Race Course	AM 13		
		First Davies mill at "Coodardup" - timber routes to Hamelin Bay and Flinders Bay	Route 5	1878 - 82	
		Karridale mill built (water being important to the choice of site)	AM 13	1882	
		Jetties at both bays with railways		1882	
	Historic routes	Hamelin to Boranup Railway	Route 5	1881	
		Railway extended to Flinders Bay	Route 1	1924	
	2	"Big House" built at Karridale	AM 13		
	Other historic water supply	Cape Leewin Lighthouse, water wheel, swamp (hydraulic ram)	AM 3 & 5	1895	
	8	Boranup Mill (burnt down in 1891, rebuilt again)	AM 14	1886	
	9	Marram grass planted by Davies - Boranup sand patch	AM 9	1892	
	Historic routes	New track between Busselton to Augusta and Karridale (now Caves Rd)	Route 2	1894	
		Old track followed Aboriginal paths and hugged the coast ("Karridale Road")	Route 6		
	2	Margaret River at "Burnside Bridge" built	AM4	1878	
	8	Jarrahdene Mill built N of Boranup	AM 15		
		Boranup Mill closed		1910	
		Karridale Mill closed		1905	
		Jarrahdene mill closed		1913	
	Historic routes	Bussell forded near rapids (on the Margaret River, 15 yards across)	AM 16	1831	
	2	Cave at E end of Cliff at Wallcliffe on Margaret River "Wainilyinup" (Aboriginal site and folklore)	AM6		
		"Ellensbrook"	AM1	1854	
		"Wallcliffe" on Margaret River	AM2	1854	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	1	"Georgette" crew etc land at Injidup		1874	
	2	"Burnside" on Margaret River	AM4		
		"Fairy Ring"			
		"Woodyche"			
	1	Cave exploration by Le Soeuf (maps produced by 1901)		1900	
	2	"Old Bridge Home" on Caves Road (built by Alfred Bussell, served as an overnight stop Busselton to Karridale)	AM4		
		Higgins: • up Blackwood River to where it was crossable by ford, continues upstream to "Tanjanerrup" - places of many waters - Tanjanerrup Farm (Nannup) • also took up land on Majenup Brook (N of Nannup)	NA 7	1852	
	Other historic water supply dev.	Boodjidup Brook - gold		1896	
		Sussex loc 2177		1933 - 5	
	2	Augusta - first school on swampy ground			
	3	Group Settlements (communal) land selected then water procured...water difficulties and wells - pg 194		1922	
	9	First pines planted in area - 3 kms N of Margaret River	AM8	1933	
	Other historic water supply dev.	Depression - pg 263, There were no windmills or dams in those days either, so all stock had to be watered from wells, from which water was pulled in kerosene tins			
	Historic route	Coach Road (now Bussell Hwy) and Telegraph Rd	Route 7	pre 1901	from BL Map 64C
Bibliography		Cresswell, Gail. (1989) Light of the Leeuwin. Augusta -Margaret River Shire Council.			
		Dept. Lands and Surveys (1901). Map showing the locality of the caves between Capes Naturaliste and Leeuwin, Western Australia. BL 64C			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
BOYUP BROOK		• 2,838 sq kms			The Western Australian
		• population: 2, 060			Municipal Directory: 1994 - 1995
		• towns: Boyup Brook, Wilga, Mayanup, Dinninup, Kulikup			The Western Australian Municipal
		• significant historical attractions: Blackwood River, Norlup House, Gregory Tree, Museum - Boyup Brook, Flax Mill.			Association.
		• industry: timber, farming - cattle, grain, sheep, pigs.			
	2	"Condinup"	BB 1		National Trust
		Flax Mill			Perth
		"Norlup", House and School room: Lot 199, Nelson Loc 39 7 km E Mayanup	BB 5	1854-5	
		"Rose Cottage"			
		Ritson Property (natural listing)			
		Wilga Sawmill			
	2	Sheep washing in river at Jayes Bridge, Blackwood River	BB 2 2a	1880 - 1890	Ken Ritson PO Box 26 BOYUP BROOK WA 6244 (097) 651074
		Drinking, washing, bathing "Daneholme", Blackwood River	BB 7 2b	1906 - 1935	
		"Norlup", Domestic and stock, Scotts Brook	BB 5 2c	1854	
	3	Railway dam	BB 6 3a	1910?	
		Town Dam	BB3 3b	1935?	
	4	Apple orchard - irrigation dam	BB4 4a	1960 - 1975	
	5	"Daneholme", drains to prevent waterlogging	BB 7 5a	1926	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	7	Blackwood River generally clear and fresh until the floods of 1955 when deterioration became rapid (silt & salt)		1955	
	9	Fishing on the Blackwood River: • Marron until 1980		1980	
		• Perch until 1965		1965	
		• Cobbler - 1995		1995	
		WHG bathed at Sheep Wash after fire fighting	BB 5 2c	1864	
		WHG bathed at Sheep Wash after fire fighting	BB 5 2c	1965	
	1	• The name of the town is derived from the native word "Booyup" and was the name of a pool four miles from the present town site. • First explorer: Thomas Turner • Explorer: A.C. Gregory, visited in 1845 from the junction of the Arthur and Beaufort Rivers, marked the Gregory Tree, mid way between the townsites of Boyup and Dinninup along the Blackwood River. • JS Roe, passed near district and again in 1849 on his return journey after exxploring an area of land to the east of Albany • Rev Wollaston passed through the Boyup district when travelling from Kojonup • Surveyor: first survey by Robert Austin in 1859	BB 3	1845 1843 1859	Wooding, D.J. (1969). The History of Settlement and Agriculture in the Boyup Brook District. Midvale School: Teachers' Higher Certificate.
	2	First settler: John Hassell Early settlers: • Commander Scott - 12 000 acres in 1854, Norlup, growing wheat, cattle and sheep • James Lee Steere, 1861 with JH Monger at Jayes, well watered land along the course of the river		1854 1861	
	8	Wilga timber mill: steam until 1958. Owned by Sheperdsons. (further ref to Ron Shepherdson current owner ph: (097) 661 012			pers comm. Debbie: Boyup Brook Tourist Centre: ph (097) 651444
	2	Boyup Brook Tourist Centre - Abel St, Boyup Brook			Australian Heritage Commission
Bibliography:		• Scorer, Albert. (1968) History of the Upper Blackwood. South west Printing and Publishing Co., Bentley, WA.			
		• (Anon) Timber Milling in Australia.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
BRIDGETOWN-GREENBUSHES		• 1,691 sq kms			The Western Australian
		• population: 4, 000			Municipal Directory: 1994 - 1995
		• towns: Bridgetown, North Greenbushes, Greenbushes, Yornup, Hester, Catterick, Winnejup.			The Western Australian Municipal Association
		• significant historic attractions: local museum in Tourist Burequ, Blechynden House			
		• industry: mining, farming - sheep, beef, grains, fruit, tourism, forestry, timber milling, horticulture.			
	2	"Bellavista"			National Trust Perth
		"Ford House", - Carey St, Bridgetown	BG2		
		Fruit Juicing Plant			
		Industrial development			
		"Trotts Cottage" - SW Hwy, Bridgetown	BG1		
		Winnijup	BG4		
		Wilgarrup			
		Bridgedale, The Blechynden House	BG3	1859	
	2	Trotts Cottage, SW Hwy, 3 kms N of Bridgetown	BG1	1880	Australian Heritage Commission
		Bridgedale, the Blechynden House, Hampton St, Bridgetown	BG3		
	1	Explorer: Thomas Turner 1834		1834	Ref: The Blackwood - Valley in Transition. P. Christensen, K. Pentony, and W. Schmidt.
		Explorer: Bland, Irwin & Singleton		1842	
		Explorer: Scholl, Warburton & Bessel			
		Surveyor: Augustus Gregory		1845 - 1852	
	2	Convicts brought in		1850s	
		Settlers in Blackwood Valley: John Blechynden (in Bridgetown)	BG 3	1857	
		Edward B. Hester (Greenbushes)	BG 5		

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		John Allnutt (planted potatoes, wheat, peaches, apples & gooseberries and kept pigs) (Nelson Grange Homestead)	BG7	1865	
		James G. Lee Steere (East of Blechynden along Blackwood)			
		Jones Brothers at Southampton, W of Chester on Blackwood River			
		Discoverey of tin close to Greenbushes waterholes		1888	
		Sawmilling 1895 - Scotts Steam Mill in Bridgetown		1895	
		Railway reached Bridgetown	Route 9	1898	
		Two steam mills N of Greenbushes	BG 10		
	7	"since ringbarking in Bridgetown water supply has considerably increased		1890s	
	2	Apple orchards in Bridgetown to supply Goldfields towns		1890s	
	7	First records of salinity testing in Blackwood at Bridgetown		1904	
	2	Soldier settlement - first tractors to build dams			
	8	Grimwade - first pine plantations planted by unemployed		1933	
	2	Dairy farms - butter, cheese and cream		1930s	
	1	Explorer: Augusta settler Thomas Turner traced the Blackwood River upstream to its junction with Arthur River. "European explorers later followexd these well-established Aboriginal tracks on their expeditions into the Blackwood district."		1834	Geegelup Heritage Trail WA Heritage Trails Network
		Surveyor: Augustus Gregory • explored the river downstream towards the coast and later • conducted the first official survey of the district		 1845 1852	
		Surveyor: Robert Austin, completed a detailed survey		1850s	
	2	First agricultural settlers in Bridgetown along the Blackwood River		1850s 1860s	
		Bridge over the Blackwood River	BG9	1862	
		John Blechynden: • pastoral purchase of freehold land along Blackwood in Bridgetown • used clay from banks of Blackwood River to build Bridgedale	BG 3	 1857 1862	
		Edward Godfrey Hester: • settled on Blackwood Park, a property adjacent to the Hester brook • opened the first steam-powered flour mill	BG5	 1855 1864	
		• Discovery of tin in area Greenbushes well by Mines Dept surveyor • First extraction of tin from gully S of present townsite by David		1886 1888	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		William Stinton • establishment of town			
	8	Timber concession to DE Browne in area around Greenbushes		1890s	
	2	Settlement at Maranup Ford on the Blackwood River: • HM Browne • Mr Sarrell • Mr Russell	BG6	1898	
		Maranup Ford: a mustering point on a large cattle run. Cattle were driven to the coast for summer grazing following well-established routes camping at watering points	BG6	1890s	
	2	"Alongside the building stood the vital rain water tank, usually on a stand. Most schools cultivated a winter garden as part of their course in nature study."		1903 - 1984	Little Schools Trail: WA Heritage Trails Network. WA Heritage Committee.
		"Green-bushes Well" (Oxylobium lanceolatum) Balingup-Bridgetown Coach Route	BG 11 Route 10	1861 1860s	Heritage Trail
Bibliography		• Appleyard, R.T. and Manford, T. (1979) The Beginning: European Discovery and Early Settlement of Swan River Western Australia. UWA Press: Perth.			
		• Christensen, P., Pentony, K. and Schmidt, W. (1981) The Blackwood: A Valley in Transition. Forests Dept. of Western Australia: Perth.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
BROOMEHILL		• 1,376 sq kms			The Western Australian
		• population: 562			Municipal Directory: 1994 - 1995
		• towns: Broomehill			The Western Australian Municipal
		• significant historical attractions: Historical Society collection, start to Hollands track, Etticup	BR1		Association.
		• industry: sheep, cattle, wheat, oats, barley			
	2	Eticup - Township	BR1		National Trust
		"Fairfield"(Kojonup Loc 43/44, 12 km W of Broomehill)	BR2	1865	Perth
		"Martinup" (on Broomehill/Gnowangerup Rd, Kojonup Lot 7743, 26km)	BR3	1861	
		"Sunnyside"	BR4		
	2	Fairfield	BR2		Australian Heritage commission Canberra
		Martinup	BR3		
	1	Surveyor: Gregory, first block at Ettakup for John McKail		1852	Early Memories. (1979) Broomehill Historical Society.
	2	Settlers in Ettakup area: • John McKail: ten acre block, Hay Loc 1, SE corner in Eticup Pool • Solomon Drolf: kangaroo hunter • George Whitton • Pat Garrity • Ned Brown • Joseph Nelson • Carmody family • Rogers family • Tylor family • Carpenter family • Krakouer brothers • Vanzuilecoms leased "Fairfield" • Brassey family of "Goblup" • WH Graham • Thomas Norrish	BR5	1850 1855 1874 ⇓ 1883 1887 1860 1868	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Opening of Railway led to establishement of Broomehill		1889	
		• "Hayfield": Kojonup Loc 54, owned by James Annice • "Moulyerup": owned by John Frederick Hillman. "The two ends of the farm were known respectively as Nymerup and Moulyerup, after the two native soaks there....I build my house near the old Moulyerup soak and have a windmill on it which supplies the house and garden." • "Fermoy": owned by Tom McGuire, "on it was a fresh water soak" • "Roma" vinyards: Nalli family, "the underground tank, blasted out of stone, beautifully rounded and cemented and built up to a height of 3 ft or more above the ground level, pillared closely around, with an absolutely fly-proof, and almost insect proof cone shaped top, and a capacity of 28,000 gallons....A new dam had also just been completed...a plentiful supply of good water will always be available."	BR 6 BR 7	1840's 1904 1870's 1890's	
	8	"In 1904 everyone was after mallet bark...about 1000 men in the bush within 30 miles of the township...."			
	1	Explorer: John Holland and team expedition to establish direct route to Gnarlbine Rock, main water supply for the goldfields using the following watering points en route. • Kuringup Spring • Coyrecup - grazing lease • Nampup - grazing lease • Nowernelup (Holland tank) • Kangaroo Spring Then they moved out of the Blackwood River Catchment....		1893	Holland Track - Broome Hill to Bayley's Rush 1893 - 1993 Broomehill Historical Society
	1	• Native well - Roe and Stirling Exp • Martinup Creek - Roe & Stirling Exp • Pallinup River - Roe & Stirling Exp • Scamper Creek - Roe Northbound • Ettakup - Asst Surv Phelps		Nov 1835 1835 1862	Miss S. MacDonald "Sunnyside" (PO Box 39) BROOMEHILL 6318
	2	Eatup - J. Hassell & Surv Gregory Eticup Wash Pool - wash pool Wadgegannup - wash pool		1846 1862 1862	
	3	Well sinking at Nanamillup (house) WHG bathed at Sheep Wash WHG bathed at Nymerup Pool		1864 1864 1864	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		WHG bathed at Sheep wash after fire fighting WHG bathed at Sheep wash		1864 1865	
	7	Nannamillup - dead animal in well Nannamillup - foal fell in well Nannamillup (now Fairfield) suicide in well Moorelup Creek - water undrinkable		1862 1865 1870's 1883	
Eticup	2	Settlement of farms, houses, blacksmithies, and eventually an inn, two stores, and a church grew in an area near a pool on the Gordon River. Maps give the spelling Ettakup for the pool and the gully but Eticup in general use - pronounced by some EE... which would have been closer to Aboriginal Yee-takup (Singing Place) Map ref 1E			
	1	Ref: Bignell, M. "A Place to Meet": • 1E - Assistant Surveyor Phelps on expedition through the area understood that Mulladup and Martinup Springs were dry and "shall proceed from Ettakup to Graham's piece on Kojonup Road" (Nanamillup - renamed "Fairfield" on Graham's marriage) • 2A - John Hassell and Assistant Surveyor A.C. Gregory looking for farming land "...as far as Eataup where we found a small pool but with scarcely sufficient water for our horses".			
	1	• Wash Pools: Until about 1888, sheep were always washed before shearing. Thomas Norrish's diary for that year contains his last reference to washing the sheep. • Wells, Tanks and Dams: WH Graham referred to Wells and well-sinking, lined with stone and fitted with windlasses. Thos Norrish used the term Tanks and was still using it in 1897 even when excavation indicated Dam - 1300 cu yds. Tanks were lined with timber and fitted with fork and lever; they frequently fell in and had to be cleaned out, or failed altogether. There is an 1883 reference to a 40 feet x 10 feet tank. This would have been a Box Tank - long and narrow and lined with timber and covered with a roof. There is all that remains of one (a long pit) at "Sunnyside" (Map 2E. By the early 1900's, the advent of dam-sinking ploughs and scoops made dam-sinking much more efficient. • Watering Sheep: settlers operating on any scale had vast Pastoral Leases where their sheep were shepherded and moved from place to place as feed and water supplies dictated. Watering places bore (and some still bear but few shown on maps) Aboriginal names.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Nyungar words in this area ended with UP, meaning 'place' but the 'places' were always at water. At many sites, tanks (wells) were sunk to augment water supplies as creeks and gullies usually dried throughout summer. Even when supplies sufficient for sheep, water often had to be taken to shepherds in casks. Iron tanks referred to in 1881. At various times during 1870's, 80's, and 90's, Thomas Norrish ran his sheep to: • Eticup (1E), • Pallinup (1C), • Three Wells (2F), • Deep Well (2G), • Wackenup (2J), • Paper Bark Pool (2K), • Peringellup Well (2E), • Poonawarrup (2L), • Madjedup (Mulladup) (2M), • Negalup (2N), • Pienellup (2O), • Chillicup (2P), • Wearup (2Q), • Wagellup (2R), • Pindellup (2S) • and many, many more that I can't find on map. By the late 1890s, fencing of paddocks became common and less shepherding done. (PS spelling of Aboriginal words varied considerably). Leases were not confined to the (now) Broomehill area.			
	2	• Graham shifted sheep from Muradungup (no water) • Graham sunk well at Chetangundiup • WHG made washpool at Wadgegannup • Yellanup Spring - WHG improved flow • Woolyamungup - WHG deepened well to 32 feet • WHG sunk Peringillup Well • Three Wells Paddock (Goblup) • T. Norrish sank well at Eticup • Treasure's wash pool at Martinup • Goblup - various tanks (wells) • Shepherding of sheep	 2c 2d 2e 2f 1e 2h 2I	1862 1862 1862 1863	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		• "Sunnyside" - open pond 400 yards at 2/6d. per yard cu. Believed to be small dam about 300 metres from house, if so, early example of 20th Century farm dam • Chinaman's Pond Paddock. Chinese employees under 2 year contract from Singapore (?) dug 'tank' at Goblup (T. Norrish manager at this time) 1894 photo shows large expanse of water, no banks.	2t 2i	1883 1894	
	3	"Goblup" - reference to iron tanks 1880	2I	1875...	
		"Sunnyside" has circular underground tank at corner of house c/w down-pipes from guttering. Estimate originally about 8 000 gals but sides have been raised above ground and it has been re-lined a couple of times with cement.	2t	1883	
		"Sunnyside" - about 15 metres from house is all that remains of Box Tank (a long pit)	2t	1882-c.1920	
	7	Nanamillup. WHG emptied water from the well as there was a putrid taste. After throwing out about 2 000 gals found a dead coomal.	3a	1862	
		Nanamillup. WHG emptied the well as the foal had fallen in	3a	1865	
		"Fairfield" (Nanamillup). Some years later Mrs Graham's servant-girl Eliza Lee drowned herself in the well as she could not stand conditions in the Colony.	3a	1870s	
		At most times it was a question of water quantity, not quality. Settlers were pre-occupied with finding water for themselves and their stock. In 1893, water at Goblup was failing and salty, so water was carried from the well (?) at "Sunnyside" (2t) up to "Goblup" (2i)			
		In 1898, when inspectors were enforcing sheep dipping regulations, permission was sought to stop dipping because of the shortage of water; exemption granted till sufficient rains set in.			
		In 1894 (December), brickmaker engaged by Norrish to make bricks at "Sunnyside" for the church settlers were building at Eticup (Greenhill Road near "Goblup") had to stop work as there was no water to continue.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
BUSSELTON		• 1,454 sq kms			The Western Australian
		• population: 17 500			Municipal Directory: 1994 - 1995
		• towns: Busselton, Dunsborough, Yallingup, Jarrahwood, Vasse, Carbunup			The Western Australian Municipal
		• significant historical attractions: Busselton jetty, Caves, Naturaliste lighthouse, museum			Association.
		• industry: dairy, cattle, sheep, timber, mining, fishing, light industry, viticulture			
	2	"Abbey Farm" - Lot 1, Yallingup	B 10	1864	National Trust
		Barnard's Residence - Bussel Hwy			Perth
		"Beachgrove" - 51 Ford St		1910	
		"Bovell's Cottage" - 13 Adelaide st, No 13, Lot 2		1860's	
		Butter factory - Peel Tce			
		"Cape Farm" - Cape Rd, Cape Naturaliste			
		Cape Clairault - Resort Plan			
		Cape Naturaliste Lighthouse	B 5		
		"Cattle Chosen" (fmr Bussel Home - Vasse Highway, 3 km SE of Busselton	B 3	1836	
		Caves House,- Res. 17695, Loc 4421Yallingup	B 11	1904	
		Chapman's Mill - Inlet Park, Wonnerup	B 12	1850	
		"Fairlawn" (fmr Molloy Home) - Government Rd (on banks of Vasse River)	B 4	1839	
		"Inlet Park" - Wonnerup (Sussex Loc 2, 6 KM E of Busselton)	B 12	1850	
		"The Island" - Wonnerup (1.5 km NE of Estuary bridge at "Lockville")	B 12	1907	
		"Lockeville" - Wonnerup (8 km NE of Busselton)	B 12	1850	
		"Marybrook" - Vasse - Bussel Hwy, Wonnerup (15 km W of Busselton) "Membenup House"	B 12	1867 1862	
		"Millbrook" complex: Mill and limekiln- Wildwood Rd, Yallingup	B 1	1920's	
		"Newtown House" - cnr Bussel Hwy and Caves Rd, Loc 24	B 6	1850's	
		Old Cammilleri Home - 27 Georgette St Lot 24		1910	
		"Quindalup House" - Quindalup			
		"Sandilands" - Ford Rd, Busselton, Lot 7 (opp. Kent st)		1830-1840	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		"Seaview" - Ludlow			
		"Seymour's Cottages" - Dunn Rd, Dunsborough	B 8		
		"Westbrook" - off Bussel Highway, Vasse (10 km W of Busselton)		1846	
		"Wheetman's House"			
		Wonnerup House & assoc. buildings	B 2	1837	
		Dunsborough Lakes (natural listing)			
		Geographe Bay, Southwest Fishery (natural listing)			
		"Yarre Mia" - 150 Bussel Hwy		1899	
	2	Bovell's Cottage - 13 Adelaide St, Busselton		1865	Heritage Council of WA
		Old Vasse School - Kaloorup Rd, Vasse		1894	
		Cape Naturaliste Lighthouse & quarters	B 5	1904	
	2	Building - Adelaide St, Busselton			Australian Heritage Commission Canberra
		Newtown House, Bussell Hwy, Busselton	B 6		
		Cattle Chosen, Vasse Hwy, Busselton	B 3		
		Sandilands Homestead, Busselton			
		Wonnerup House, Layman Rd, Busselton	B 2/B 12		
		Membenup House - Bussell Hwy, Wonnerup	B 12		
		Inlet Park - Bussell Hwy, Wonnerup	B 12		
		Chapmans Mill (on Inlet Park) - Bussell Hwy, Wonnerup	B 12		
		The Island Homestead - Geographe Bay Rd, Wonnerup	B 12		
		Lockeville Homestead - Layman Rd, Wonnerup	B 12		
		Seymours Cottages - Dunsborough	B 8		
	1	Dunsborough - ground water	018	1850	Mrs. K. Mouritz Hon. Secretary Busselton Historical Society (Inc) PO Box 789 BUSSELTON, 6280 Ph: (097) 542166
		Busselton - ground water	004	1830	
	2	Augusta	004	1830	
	3	Ground water			
		Rainwater tanks			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	5	Carried out spasmodically		1940 - 1950	
		Toby's Inlet			
	8	Domestic			
	2	• Vasse River - Bussell - "Cattle Chosen" • "Fairlawn" on the Vasse - where Georgiana Molloy died 1843"Westbrook" - Elijah Dawson's home on the Vasse • Cape Naturaliste Lighthouse	B 3 B 4 B 5	 1843 1904	Cresswell, G.J. (1989). The Light of the Leeuwin. The Augusta-Margaret River Shire History Group. WA
	1	George Layman Killed by natives at Wonnerup pg 59	B 12	1841	
	8	Steam mills in operation - Yelverton's mill at Quindalup	B 14	1875	
	Historic routes	Railway extended to Busselton	Route 1	1895	
	2	Keenan: "Glenowen" at Cape Naturaliste (bought from James Chapman)	B 13	1864	
		Meelup Spring - on track to Dunsborough Well - track junction (old coast tracks) near Biljedup Yelverton Tramway Yelverton jetty	B 7 B 9 Route 7 B 15	1901 1885 1885	1901 Map Map: BL 298C/S. 27 Map: BL 298C/S. 21
Bibliography		• Cresswell, G.J. (1989). The Light of the Leeuwin. The Augusta-Margaret River Shire History Group. WA • Map: Augusta Margaret River Shire: Lands S. Dept (1901) • Map 1885 BL 298C/S.27 • Map 1885 BL 298 C/S.21			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
CAPEL		554 sq kms			The Western Australian
		population: 5,850			Municipal Directory: 1994 - 1995
		towns: Capel, Boyanup, Gelorup			The Western Australian Municipal
		significant historical attractions: State Forest No. 1 (tuart), Historic sites, Boyanup Transport Museum, Ironstone Gully Falls.			Association.
		industry: mineral sands, mining, beef, dairy, fruit, timber, viticulture, aquaculture, stud breeding.			
	2	"Minninup", (6 km N of Capel on Mangles Rd, Lot 2)		1848	National Trust
		Payne's Water driven Flour Mill			Perth
		"Paringa"			
	1	Baudin's expedition went ashore at Mininup - planted vegetables South of Capel River		1801	Valerie Krantz 22 Mounts Bay Rd, CRAWLEY,6009 & Diana Chase 24 Congdon St SWANBOURNE 6010 Ph: (09) 3861447/384 6124
		Governor J. Stirling in the Success explored the Geographe Bay coast looking for good water & soil for settlers		1827	detailed information available in letter attached to questionnaire
	2	Settlers moved to areas with permanent water on or near the Capel/Ludlow & Preston Rivers ie James Child settled at Mininup	CP 2	1843	
		Samuel Rose - Dougup		1843	
		James McCourt - Ludlow River		1851	
		George Payne - Paynes Water Mill on Capel River		1851	
		James Bessonnet & Thomas Hurst - Preston River		1846	
		WJ Roberts and family - Capel River and Gignadup Brook		1864	
	4	Some irrigation of fruit trees on Preston and Capel Rivers from 1960's contact: L. Yates or J Senders (N. Boyanup)		1960s	
		Charles Berber (an engineer) of Elgin designed drains network to		1900s	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		drain/water his paddocks.			
		Porter Matthers - designed drains network to drain/water his paddocks		1900s	
	5	Stirling Drainage Board operated in Shire from early 1900's contact: Mr Ronald Maidment of Roe Rd, Capel		1900 onward	
		Cuts put through to sea to drain wetlands: Higgins and McCourt cuts	CP1	1864 & 1874	
	7	Ref: Bunbury, HW. (1930) Early Days in Western Australia. pp 138 - 40			
	8	Whistler family set up a timber mill on the banks of the Preston (Boyunup)		1890s	
		Bessonnets grant: contact Gordon Farley, Nursing Home, Heyes St, BUNBURY timber miller on Capel River aged 95 - very good memory			
	5	Ref: • Bussel and Lt Bunbury • Surveyor Omni of Wellington Map 14 • seasonal flooding - building causeways • first cut put in in 1864 to alleviate flooding, all fresh water • Springfield Farm network of drains - Farmer Higgins • Issue: maintenance of cuts constructed of wood • CSO and applications to put in cuts • Ref: Roe: impact of putting in cuts - sea water • flood of 1862 washed away all the farms etc • 1870's Ref: James Ramsays diaries: effects of floods; conservation of soil. • TALK to Gordon Roberts of Springfield about cuts and impact on swamps, impact of mining on land and swamps. • 1917 floods and main bridges damaged • Stirling banks and drains broke up around the first world war • dynamiting (often illegally) of flood gates brought in sea water.	CP1	1864 1862 1870s 1917	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	2	Paynes Mill: • focal point for village • water for flour milling • bridge built over the Capel for transport of grain to mill • development of general store and inn • Paynes Mill pond, shooner built on banks, pulled to Fatfield to ply between Augusta & Geraldton.		1851	
	2	• Historical Ref: James Child, Minninup: Farming strategies to avoid cattle loss • Early subdivisions bought up by larger families • price of land changed with policies...1890s map: Leschenault 46 • DOLA Historical maps • Ref: Nancross diaries: surveyors and classification of land and opening it up ...1830s • Goldrush in Goldfields put rail into Capel to transport fresh produce to goldfields...potatoes = big crop...implications for irrigation...impact of summer storms on crops & salination...sea transport of produce • diseases introduced from eastern states destroyed crops etc • a bridge was put in over Layman's Gully to open up the Stirling Estate • Group settlement in 1921: wells used • Soldier settlements after WWII		1890s 1830s 1921 1945 -	
	8	Timber mills process timber before it was floated out to the ocean: Mills: • Yokonup • inland from Gunyulgup			
	7	impact of butter factory runoff into waters = smell and water quality impact, vegies were often grown in these runoff paddocks			
	9	• Ref: Princeps diaries: problems with wild cattle (escapees) • Aboriginal marron/koonac/sweetwater crayfish found in dams • no marron below the mill in Capel, introduced in 1890s • trout and perch put in by farmers in 1890s • fish, sea weed, guano and cattle bones used for fertilisation • ship's ballast used to loosen clays		 1890s 1890s	
	Historic routes	• Military support for settlers: military posts established, dependent on good water supplies			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		• 1872: Cobb & Co used timber tracks between Vasse & Bunbury • establishment of railways to transport fresh produce to goldfields • Boyunup = junction for rail • The drainage board, Capel.... • Wells for convicts establishing roads, maps to show wells from public works, shown at every 10 miles and follow early roads • Ref: for wells: Williams Map 19 • Ref: for wells: Woolaston's diaries • Classification of land released based on Rail and station links • Classification of land quality water dependent: A=within 3 miles of river; B= land outside that boundary		1872	
	1	Stirling's expedition with Botanist Charles Fraser: • descriptions of Paradise creek: • soil water holding capacity • grasses • plants		1827	
	9	contact: Michael Tichbon on Gwindinup (S Boyanup) re: local vegetation			
	2	Minniup Homestead, Mangles Rd, Capel			Australian Heritage Commission Canberra
		Busselton-Boyanup Railway	Route 1		
Bibliography		• Krantz, V. & Chase, D. (in review). Shire of Capel.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
CRANBROOK		3,300 sq kms			The Western Australian
		population: 1,250			Municipal Directory: 1994 - 1995
		towns: Cranbrook, Frankland, Tenterden			The Western Australian Municipal
		significant historical attractions: Freshwater and Salt Lakes, Sukey Hill Lookout			Association.
		industry: sheep, wool, cattle, pigs, grains, timber, viticulture, horticulture			
	2	"Kerrimunup"			National Trust
		Tenterten Hall			Perth
	1	Alexander Collie from Albany searched for suitable water and land for farming north of Albany around 1830. He discovered all year round water at Geekabee Hill (Prestons Property) - Yerimunup Rd	CR1	1830	Mary Gillam Gillamii Landcare Centre PO Box 9 CRANBROOK 6321 Ph: (098) 261234
		Thomas Bannister from Perth settlement journied through Cranbrook around 1830's - 40's to investigate coach road from Perth to Albany. Water sources and land developments were investigated.			
	2	Ref: "Reversing the Trends" pg 13. Land was granted in the district around 1857, see photocopyed paged attached - page 7 for map (this info appears to be missing!!!)		1957	
	3	Ref: page 13/14 "Wash pools" River was used for drinking, washing before roof catchments were assembled. Many farms developed on river banks for domestic and stock. Other properties depended on soaks. Between 2 world wars wells were unsuccessfully achieved due to underground streams being too salty.			
	5	Not applicable with early exploration. Now adays has become necessary due to larger farming/clearing in recent years.			
	6	Gordon Hall made into a A Class Reserve approx 100 acres approx 1922 (W.W. Pope)		1922	
	7	Early days water was plentiful (fresh lakes, rivers) with low salt content. Low stock numbers with little clearing until after 1950's onwards. See page 154 - 155 "Frankland to the Stirlings"			
	8	After World War 2 modern machinery was used for clearing. Earlier clearing done by hand. There was a Timber Mill in Cranbrook which	CR2		

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		was used for railway sleepers. Timber was also used for housing due to the increase in population after the wars. Clearing was mainly done for farming/grazing/cropping.			
	9	Marron and perch were plentiful for domestic use (natural not imported) in rivers and creeks.			
	2	Sheep washing, summer pools (description of on pg 19) "Bokerup" (Egerton-Warburton 1880)	CR3		Laurie, M. (1994) Frankland to the Stirlings: A history of the Cranbrook Shire. Shire of Cranbrook, WA
	8	Cabbage Tree Mill	CR4		
	Historic routes	Importance of water on railway line from Albany to Perth			
	7	Clearing and salinity, ref pg 154 - 5			
		Water problem: pg 160			
Bibliography		• Laurie, M. (1994) Frankland to the Stirlings.			
		• McFarlane, D. & J. (eds) (1994) Reversing the trends: proceedings of a seminar organised by the Frankland Below Gordon Land Conservation District Committee. • Shire of Cranbrook (1976). The Shire of Cranbrook 1976: Its History and Development. Shire of Cranbrook, WA.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
DONNYBROOK/BALINGUP		1,541 sq kms			The Western Australian
		population: 4,300			Municipal Directory: 1994 - 1995
		towns: Argyle, Brookhampton, Balingup, Donnybrook, Lowden, Mumballup, Mullalyup, Kirup, Noggerup, Newlands			The Western Australian Municipal
		significant historical attractions: Donnybrook Historical Museum, Cheese Factory Craft Centre, Golden Valley Tree Park, Stables Pottery, Anchor & Hope Inn, Blackwood Inn.			Association.
		industry: light industry, horticulture, fruit production, sheep, cattle, stone quarrying			
	2	Anchor & Hope Inn - SW Hwy		1845	National Trust Perth
		Blackwood Inn, Old Mulalyup Inn & Barns (Old Mullalyup Inn Group, Pt Nelson Loc 23)	DB 8	1865	
		"Brooklands" - Nelson Loc 8123/8124, Balingup	DB 7	1904	
		"Brookview", Wellington Loc 452	DB 5	1886	
		"Careyale" - Cemetery Rd, Wellington Loc 189	DB 9	1888	
		Crendon Homestead, Wellington Loc 3339	DB 3	1885	
		"Eulamo" - Balingup			
		Ferndale, fmr Somerset House - cnr Balingup-Nannup Rd/Hay St	DB 6	1860's	
		"Golden Valley" - Padbury Hill Rd, Balingup, Lot 11 Nelson Loc 165	DB 13	1895	
		Grimwade	DB 9		
		"Hawterville" - Nelson Loc 606.607, Mullalyup	DB 8	1895	
		Old Brookhampton Hall - Brookhampton	DB 1	1900	
		Old Brookhampton Farm - Brookhampton	DB 1		
		"Southampton" - Forest Lease 1122/40Balingup	DB 10	1862	
		"Torridon" - Newlands, Preston Ag Loc 4617	DB 2	1873	
		"Yabberup Hall" - Preston Town Loc 6, Yabberup	DB 4	1896	
		"Paynedale" - Goodwood Rd, Donnybrook (Wellington Loc 590/1377)	DB 11	1883	
		Universal Brotherhood Homestead, Balingup	DB 12		
		"Woodlands" - Lowden, Boyup Brook Rd		1885	
		Somerset House - Ferndale Plantation			
	2	Southampton Homestead - Jones Rd, Balingup	DB 10	1862	Heritage Council of WA

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Golden Valley Homestead - Old Padbury Hill Rd, Balingup	DB 13	1895	
		Hawterville Farm House & Garden Setting - Mullalyup	DB 8		
		Blackwood Inn - South West Highway, Mullalyup		1865	
	2	Careydale, Cemetery Rd, Donnybrook			Australian Heritage Commission Canberra
		Paynedale, Goodwood Rd, Donnybrook			
		Crendon Homestead, Upper Capel Rd, Donnybrook			
	2	Brooklands - Balingup Rd, Balingup			Australian Heritage Commission Canberra
		Southampton Homestead - Jones Rd, Balingup			
		Golden Valley Homestead, Old Padbury Rd, Balingup			
	1	Explorers: agricultural explorers searching for land to raise horses and cattle, journeyed along the Preston River: G. Nash, J Schoales and J Bessonett.		1842	Donnnbrook Community Profile. (1994) Ed. Helena Sparkes. South West Development Commission: Bunbury.
	2	Road links to Bunbury established by convict labour		1852	
		Rail links establishment	Route 9	1893	
	8	Timber industry takes off with new mills established		1890s	
	2	Apples industry		1890	
		Apple processing and jam factory established		1909	
	Mining industry	Gold discovered, mined for four years		1897	
		Sandstone quaried		1900s	
Balingup	2	First settlers		1860	History Sheet:Donnybrook-
		Railway connection		1897	Balingup Tourist Information
		Coach staging point operated in Balingup	Route 10		Centre, Donnybrook
		Cheese factory and a small timber mill comprised industry			
Newlands	2	First settlement and name from William Own Mitchell (early settler)		1873	
	8	Timber industry started		1900	
	4	Tomato growing by Italian immigrants		1900 onward	
Brookhampton	2	First settled by Millerl/Mueller		1850	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Brookhampton House: Pastoral lease by James Guy Thomson		1860	
Mullalyup	2	Blackwood Inn staging post		1860	
	8	"The town again was located in the middle of timber country."			
		Boyanup-Donnybrook Railway Donnybrook-Balingup Railway Coach Road: Bunbury - Bridgetown	Route 9 Route 9 Route 10	1893 1897 1860s	
Bibliography		• Frost, A.C. (1976) Green Gold - A History of Donnybrook.			
		• Frost, A.C. (yr?) "Baylya-Balinga" - A history of Balingup.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
DUMBLEYUNG		2,553 sq kms			The Western Australian
		population: 934			Municipal Directory: 1994 - 1995
		towns: Dumbleyung, Kukerin, Moulyinning, Nippering, Tarin Rock			The Western Australian Municipal
		significant historical attractions: Lake Dumbleyung, Bunkin Historical Homestead			Association.
		industry:			
	2	"Wheatfield" - 5 miles West of Dumbleyung	DU1		National Trust, Perth
		Lake Grace/Dumbleyung Reserve			
		Williams Loc 13895, north Kukerin			
Kukerin area:	1	Sandalwooders & surveyors used: soak spring (Merilup)		1876	Mrs Joan Timperley PO Box 6 KUKERIN 6352 Ph: (098) 646033
		Spring - Night well			
		Moulyinning Pool	DU5		
		Pingarning Rock hole and soak	DU2		
	2	Merilup - J. Holland - pastoral lease		1876	
		Sandalwood depot		1880s	
		Dumbleyung Shire East of RPFence (Pioneer settlers)		1905 - 1912	
	3	Soaks, Lagoons (Dongolocking creek)	DU3	1880s	
		Government wells & dams		1910+	
		Settlers dams & rainwater tanks		1912	
		Dam and catchment for Kukerin townsite		1966	
		Comprehensive scheme		1990	
	5	Flood banks		1965	
		Salinity		1930s+	
		Contours (soil erosion)		1930s+	
	6	Duggan Dam		1916	
	8	Sandalwood and mallet bark exploitation		1880 - 1930	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
Dumbleyung - and larger area	1	York-Williams Road: "often these early routes were later the first roads" Explorer: J.S Roe: good stockfeed and well watered camps Surveyor: J. Forrest		1835 1848	"Voices of the Bush" (1988). Dept of Conservation and Land Management: Como, WA
	2	Early Pastoralists: "most pastoralists founded homesteads at Aboriginal water sites shown as soaks etc or water was carted from government wells and dams" Staunton Springs: 32 km from Brookton Hwy and 26 km from Dryandra sheep on outstations permanent homestations crop farming		1870	
	2	Sandalwood cutters: followed Aboriginal trails and waterholes First police station established near well		1865	
	8	Dryandra: Brown mallet plantations		1926 - 1956	
	2	Wagin: appeared with the construction of Railway at "Emu's watering place"		1893	
		Dumbleyung:		1907	
		Lake Grace 1916			
	1	Lake Dumbleyung: Explorers: Landor & Lefroy	DU4		
	2	Lake Dumbleyung: Early pastoral settlement: grazing on the Lake bed	DU4	1870	
	1	Explorers: Henry Lander and Henry Maxwell Lefroy "first Europeans to travel through the Dumbleying area...led by two Aborigines to a large lake called 'Dambeling' ...."	DU4	1843	Dumbleyung Historic Schools Trail. WA Heritage Trails Network.
	2	Pastoral settlement: George Kersley grazed sheep from Beverley.		1875	
	7	"However, for the first few years it was necessary for them to return to Beverley during summer because of a shortage of bothe feed and water"		1875	
	2	Permanent settlers: John Cronin and family settled at 'Bunkin" on the north shore of the lake in 1878		1878	
		Township of Dumbleyung established		1915	
		Railway reached Dumbleyung		1907	
		Sandalwood supplemented income for settlers		1880s	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
				onward	
	of interest	Donald Campbell set a world water speed record		1964	
	2	The lake is used for water sports, picnics and other recreational activity.			
	9	Introduction of fish to Lake Dumbleyung		1955	
Bibliography:		• Klemm, T. (1969) A History of Dumbleyung. Advance Press. • Dept. of CALM (1988) Voices of the Bush: A Wheatbelt Heritage Trail. CALM: Como.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
KATANNING		1,523 sq kms			The Western Australian
		population: 4,953			Municipal Directory: 1994 - 1995
		towns: Katanning, Badgebup, Carrolup, Moojebing, Ewlyamartup			The Western Australian Municipal
		significant historical attractions: Old Mill Museum - Katanning, Historical Folk Museum			Association.
		industry: abattoirs, farming, stock selling, brickworks, engineering, grain milling, light industry			
	2	"Premier" Roller Flour Mill - cnr Austral Tce. /Clive St		1891	National Trust
		"Windermere" - Norrish Homestead - Tambellup	KO 9		
		"Yowangup" - Katanning	KA 4		Perth
	2	Katanning Roller Flour Mill - Clive st/Austral Tce		1891	Heritage Council of WA
	7	Carrolup River - onset of salinity		1941 - 1945	Ms Angela Sanders c/ Dept of CALM
		Lake Coyrecup - onset of salinity		1956 - 1960	
	1	Surveyors: Governor James Stirling & Surveyor General John Septimus Roe: "noted that a river in the nearby Carrolup area had a "series of perfectly fresh and good water pools" ".		1835	Katanning-Piesse Heritage Trail WA Heritage Trails Network WA Heritage Committee
	2	Elijah Quartermaine - sheep pastoralists (Yowangup (1855))		1840s	
		Coompatine: Tom Haddleton, Names after its well	KA 3	1840s	
	8	Sandalwood cutters (both by early settlers and "roving bands)			
		Railway development	Route 13	1880s	
	2	Roller Flour Mill:cnr Clive St & Austral Tce		1891	
		Old Dam: off Clive St, left past Federal St: the reservoir created to supply water to the Roller Flour Mill clay was dug here for a brickworks	KA 2	1902	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	8	"The water in a 28 metre well sunk by F. & C. Piesse was too brackish for the newly installed flour mill's steam engine so a dam was constructed here....people could help themselves to water without charge..."			
	2	Police Pools: (SE of the town, Clive St, right into Daping St into Police Pools Rd), the old campsite for the first policemen to be posted to Katanning from Kojonup (also called Twonkwiling Pool)	KA 1		
		• Katanning's first water: well off Thompson St in the doctor's car park behind Charlie Carters • Vinyard - winery		1904	
	1,2,3,6,7,9	Ladyman, W. pp 32 - 37: Kaarlup to Carrolup and Back (Marron, sheep, native settlement etc)			Anderson, R. (ed) (1988) Katanning - A Century of Stories. Katanning Shire Council, WA
	2	Sandwell, J. Datatine and George and Dulcie Cheetham. Sumner's Well	KA 11	1905	
	3,4	Sandwell, J. Main dam opened up the area.		1913	
	2	Old, R.C. Saleyards and drovers - A Story of the Sheep industry. • pg 80 - 81: stock routes: Katanning-Kojonup-Boyup Brook-Bridgetown • Gov dams along major stock routes at between 12 and 15 miles apart)		1930s	
		Haddleton, J.F. Early farming on Coompatine. • pg 257: sheep washing pools • pg 261		1890s	
		pg 266 - water train from Elleker to Katanning			
	2, 3	Cronin, L. "Michael Cronin" • Glencoe/Glen Cove: Huge dam dug out by pick and shovel and tip dray that took 10 - 12 people 6 months to build.		1870s	
	7	Kowald, M. Some memories of my early days: • pg 376, water levels in "round pools on Beaufort River" - soak in the dry river bed			
	2	Kowald, M. Some memories of my early days: • Cherry Tree Pool - name derivation			
	9	Kowald, M. Some memories of my early days: • lots of marron, perch and freshwater in Carlecatup River.		1930	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	2	Harris, M.D. Somewhere to live. • Police pools - name derivation • Police station - 2 kms S of Katanning.		1865	
	9	Heberle, R.L. The Country Fish Supply: pg 400 - introduction of "fish" to Lake Dumbleyung		1955	
	7,9	Beeck, N. Belle Ware. A picnic Spot. pg 488 - 9: Maracoonda Pools - water "nearly fresh", marron, redfin perch, minnows etc		1930s	
		Moojebing Spring Melyeidge Well Meerabin Waterhole Mailulup Waterhole Marragoonda Spring Yairabin Well Cartmeticup Well Tabenup Well Mollongully Well Murdong Pool	 KA 5 KA 7 KA 6 KA 9 KA 10 KA 8		Bignell (1982)
Bibliography		• Bignell, M. (1981) A Place to Meet. Shire of Katanning. UWA Press: Perth.			
		• Anderson, R. (1988) Katanning at Centre of Stories. • Scorer, A. (1968) History of the Upper Blackwood. • Sanders, A. (1991) Oral Histories documenting changes in Wheatbelt wetlands. Dept. of CALM: Como.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
KENT		6,552 sq kms			The Western Australian
		population: 1,000			Municipal Directory: 1994 - 1995
		towns: Pingrup, Nyabing			The Western Australian Municipal
		significant historical attractions:			Association.
		industry: rural industries, wheat, sheep.			
	2	Old School Building			National Trust
		CBH Grain Storage Bin (opp. Altham St)		1938	Perth
	1	• First explored by Gov James Stirling • Kent named by Dr TB Wilson • sandalwood cutters explored between Merillup Soak to Broomehill • surveyor:JS Roe, known to have taken bearings in the area which is now Nyabing • John Forrest passed through the Nampup area • Nyabing Soak officially discovered by surveyor FM Bee	 NY 1	1831 1829 1870s 1848 1870s 1904	Beecham, Wiliam. (1974) History
	2	first settlement: by John Hassell: • lease of 2,000 acres taken up around Cairlocup Lagoon • lease of 3,000 acres taken up Chinocup Salt Lake • William Henry Graham started up a station, employing convicts as shepherds • Henry Hayward & John O'Flaherty lease around Nampup Spring • O'Flaherty secured land around Kuringup Spring • Consolidated Land Act....conditional purchase for land • Nampup area..."dam was small, but a frequent shortage of water often led settlers to camp around it	 NY 1	 1873 1874 1850 1876 1879 1898	of the Shire of Kent.

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Early settlement: • Charsley, Johnston, Langley, Manuel, Quartermain and Shields families settled Nampup district • Minister for Railways contacted: "When will it be possible to convey water to Nampup, as the supply is short and what is left is totally unfit for drinking purposed"...make charges moderate for any water carried...a boring plant was also to be sought so that water might be found locally • name changed from Nampup to Nyabing • Vincent Brothers...water hauling from Katanning for three pounds per truck • gov. charges 30/- per week for the hire of the tanks' • "But pot-holes have to do duty for water supply..." • herd of 120 goats, sending the milk to the butter factory at Katanning • "to build his first house, poles were driven into the ground as supports for the walls. The floor was of earth. All water had to be carried from a soak about a mile away." • "The journey from Albany to Nyabing was not without interest or incident. The serious problem of obtaining water for the stock was alleviated by the kindness of longer established farmers, who offered the use of their dams for frinking purposes..." pg 26 • "Although water had to be used very sparingly, Mrs Shields managed to maintain the life of some plants she had brought from Victoria. It was an achievement to commence gardening by planting these plants along with other flowers and vegetables when the winter rains came." • settlers diaries refer to sheep and wheat farming • George E. Patterson took up land in the district in 1910. He was 15 years of age. His brother Ralph settled in later. They started to clear their property and sink a dam while camped at Mr Elliot Warren's shepherd's cottage where there was a good water supply from a soak." • "Harry Kippin says his father ...arrived in 1911...managed the first Richardson & Co. depot 'which comprised a mudbat building near a water catchment hole on the northern side of what is now the western end of the railway yard.'"		1907 early 1900s 1912 1912 1912 1907 1910 1937	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		• "Before tanks were erected, water had to be carted to our property from a government dam near Nyabing - probably Hollands tank..." • fat lambs marketed through Albany • "The matter of a serious water shortage occupied much of the Board's time in January, 1939." • "In March the Board supported Pingrup settlers in their protest against the charge of 2/6 per 100 gallons of water at the Pingrup Siding."		1939 1942	
	Historic routes	• construction of Katanning-Nampup district railway • rabbit proof fence constructed • "In 1922 the railway line was being extended from Nyabing to Pingrup..."		1910 1902 1922	
	7	• News report: "The Ewlyamartup Lake is drying fast..." • "The water of Ewlymartup...was turned into the newly constructed dam on its north-western margin...part of the Wilson Governments extensive scheme of water conservation for the settlers..." • "actually there is salt under most of this land, but it was kept down while the surface is in its natural state. It was difficult to establish big dams because of the porous soil, and we couldn't prevent silt going into the dams we did build. Evaporation of the water was also a problem. A dam which should have held five feet of water would have had as much as three feet of silt." Wally Hicks • "The only water in their area came from a muddy dam" pg 26: settlers of 1912 • Pingrup's first dam for the township turned out to be salt and the water was never used for domestic purposes. The second dam was built about two miles from the town but here again salt problems...A larger dam was then put into use and residents with pleasure saw the water piped into their homes. • "Men working on the roads were finding difficulty in obtaining good drinking water, so Mr W Colquhoun offered to supply a 44 gallon drum..." pg 56 • "it was stated that the Nyabing dam was also going salty and it was decided that 'if a suitable pump can be hired the dam be cleared out'". • "A bore on the sandplain near Mr. Hobart's property was put down to a depth of 60 feet resulting in a supply of 1,000 gallons		1912 1920s 1922 1935	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		of water daily..." pg 73 • Mrs H. Smith...referring to Aboriginal people of the area: "Various soaks provided fresh water (many of these have since become brackish and one at Pingrup has actually become a salt lake..." pg 91			
Bibliography:		• Beecham, William. (1974) History of the Shire of Kent.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
KOJONUP		2,937 sq kms			The Western Australian
		population: 2,500			Municipal Directory: 1994 - 1995
		towns: Kojonup, Muradup, Jingalup, Boscabel, Qualeup			The Western Australian Municipal
		significant historical attractions: Museums, Kojonup Brook			Association.
		industry: sheep, wool, cattle, grains, light industry, timber milling			
	2	Elverd's House - Soldiers Rd, Lot 16		1854	National Trust
		"Glen Lossie" - N of Kojonup	KO1	1864	Perth
		Old Barracks, Lot 21		1840s	
		Old Post Office, Spring Street, No's 18 - 20, Lot 18	KO2	1897	
		"Wannenup" - Nr Kojonup			
	2	Glen Lossi - Albany Hwy, Kojonup	KO1		Australian Heritage Commission Canberra
	1	Surveyor: Alfred Hilman, expedition to mark the road to the Swan River by way of York.... "the party met eight Aboriginies. The opportunity was taken to inquire where water could be found....The Spring was surrounded by granite outcrops in a slight valley with a rich deeper valley nearby....Kojonup..."	KO 14	1837	Merle Bignell: (1971) First the Spring: A History of the Shire of Kojonup, Western Australia. Kojonup Shire Council: University of Western Australia Press: Nedlands.
		Explorer: Governor and Surveyor General Roe: examine the Hotham and Williams Rivers		1835	
		Lt. Armstrong's visits: Harri's Rocky Pool, about fourteen miles south of Kojonup and fifteen miles north of military station Warriup: 30 to 35 miles S of Kojonup Warkelup (synonymous with Joseph's well): about four miles ESE of the Kojonup Spring was a native well.	KO4	1837	
		Hillman: located Annurup: about three miles NE of Warkelup, on the Jackaneedup Creek	KO 15		
		Warriemup Spring, about eight to ten miles short of the Balgarup River Kilcardup: about five miles distant from Joseph's Well.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	2	Clark: "we have dug a well and at the depth of 8 feet procure pure spring water sufficient to supply the establishement in the dry months of the year if the pools in the river fail..."		1840s	
	7	Warkelup Spring: "which supplied sufficient water, continuously to fill two ponds. He commented: It has however a sweetish flavour and in a short time will probably become as brackish as the spring at Kojonup..."	KO4	1848	
Gracefield	2	Ref: Don Tunney: Some Memories of "Gracefield" The property was founded on the tributary of the Gordon River twenty miles south of Kojonup, "the river water was fresh and clean, with a sheep wash area and a deep pool ideal for swimming. A large orchard occupied the fertile area sloping from the house to the river, and there were vegetable plantings and vines near the house. The house, being situated on the mainroad...sometimes travellers who arrived to find the river in flood, were delayed..."	KO3		Bignell, Merle. (ed) (1991). All their might - Tales of the Shire of Kojonup, Western Australia. Kojonup Historical Society: Kojonup.
		Ref: George Bignell: Gathering Grain through the Years and other Memories. Flock of 400 sheep> owned by Mr William Cornwall, leased by Bignell Brothers. Moving the sheep from Williams to Kojonup by droving....Beaufort River in flood....Mr Ted Cavanagh...led the way through the bush out to the left where the river was very wide, but shallow...get the sheep across.			
	9	Ref: Inez Sexton: My Life in Muradup. Gilgies (like a small crayfish) lived in the creeks and we would catch them with a piece of meat on a string. They were very good to eat.		1920?	
	3	Ref: Inex Sexton: My Life in Muradup. Water was brought on a sled in a tank filled from a lovely clear pipe-clay dam. This was for washing clothes, bodies, floors and mixing food for the animals such as pigs and calves.			
	2	Ref: Mary Ivers: Engineer to Pioneer: from farm diaries of Robert Stevenson. "Water was always a problem and soaks or pools were invaluable. Much time was spent looking for, and boring for soaks and dam sites and although dams were being made they were small and seemed to go dry by the end of summer.Several times sheep were grazed on Bean's paddocks and driven to water every second day at the Carlecatup Pool.		1910 - 1911	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		"Water was very short by the end of summer and was carted...from Carlecatup Pool or Warkelup Spring or any soak that happened to hold out." "It was a very special day when the windmill went up next to the house at "Crossburn" to pump water from the underground tank to the overhead tank to supply the kitchen and bathroom with running water."	KO5		
	7	Ref: Mary Ivers: Engineer to Pioneer: from farm diaries of Robert Stevenson. "Salt was beginning to be a noticeable problem too and couch grass was planted on some of the salt patches appearing along the creek"		1920s	
	2	Ref: Penelope and Lawrence House: The Early Days of the House Family of "Ripplemead". "The water supply was a 3 000 gallon tank for drinking water and an 8 000 gallon underground tank that leaked. There was a small hand pump to raise water to a 200 gallon tank which supplied the bathroom and laundry." "...drought...water carting was carried out...the source of supply was the Carlecatup pool, 1.5 miles distant...." "If water had to be carted for laundry purposes this was carted on a skid...pulled by one horse..."	KO6	1940	
		Ref: Pat Davis: The Story of the Collinsvale Homestead. Collinsvale School: ..."we often used to walk half-way back with them and all had a swim in a pool..."			
		Ref: Denis O'Halloran: The First Ten Years Of Cherry Tree Pool. District: 12 miles north and south from Marribank Mission to approximately the Kojonup/Katanning Road and about ten miles east and west either side of the Carlecatup Creek or Carlecatup North Road. Early selections in the area: • Earliest settled location was 712 - west side of the creek near Marron Pool - shown as Picnic Pool, just north of Marron Pool Road. • Location 929 in 1898 - on the east side of what became known as Jewells Pool just north of the Junction with Jackaneedup Creek. • Location 1171 in 1899, east side of a pool on the Carlecatup Creek about a mile south of Kojonup/Katanning Road.	KO8	1897 - 1907	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		• Location number 963 before 1915 on the Jackaneedup Creek, slightly up from Pratts Crossing. • Location 1391 and 759, on the Kemminup Road, 3 miles north of the Kojonup/Katanning Road. • Location 1201 on the west side of the Lower Jackaneedup Creek on Carlecatup North Road in 1906 he sold this block to Benjamin Smith who started a tomato sauce factory... • location 1909 in 1903 four miles north of Kojonup/Kattanning Road...sank a well... • Location 2423 about two miles east of the main pool in 1903 • location 2858 in 1903 in the north-east area of Cherry Tree Pool, on the east side of the pool on the Carrolup Creek. • Location 1658 in 1903 east side of Picnic Pool (Carlecatup Creek) and north of Marron Pool Road. • Location 1225 in 1904 on the east side of a good pool on the northern end of Carlecatup Creek - the last big pool before joining the Carrolup Creek to form the Beaufort. • Location 2957 in 1904 on the west side of a pool about six miles north of Kojonup/Katanning Road. • Location 3042 in 1904. • Location 1986 in 1904. • Location1495 in 1905 on the west side of the largest pool on the Carlecatup Creek, aobut 8 miles north of Kojonup/Katanning Raod. • Location 4164, 1906 three miles back from the creek. • Location 2899 8in 1906 just north of where the present campsite is on the east side of the large pool. • Location 4293 in 1906 right on the western end of the Marron Pool Road. • Reserve number 19015 in 1905 Quongering Pool for the entire use of Aboriginal people, on the Carrolup Creek just =before the junction with the Carlecatup Creek • lOcation4920 in 1908 on the north side of Marron Pool Road. • Location 1965 in 1907. • Location 3784 in 1907 on the western edge of the Cherry Tree Pool area.	KO7		
		Ref: Margaret Hornby Lyttleton: Old "Newstead".		1920s &	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		• "Water for cooking and washing came from the freshwater soak that Grandpa and Arbie lined with rocks; ten-feet deep. It kept producing fresh clear water all year round. We grew our summer garden there." • "The Fifty-Four Creek was a hazardous crossing ...until my Dad was commissioned by the Roads board to build a bridge wihich made the trip a bit less hazardous."		1930s	
		• Qualeup • Wahkinup Brook: 1.6 kms north of Mayanup-Kojonup Rd	KO 11 KO 12	1830 - 1831	Burton, J.L. & Jackson, (1993) Frowning Fortunes: The Story of Thomas Bannister and the Williams River District. Hesperian Press.
	1 2	Yarranup Pools - Hillman from Albany - Hassells shepherd based here	KO 10	1840 1870	Bignell (1982)
Bibliography		• Bignell, M. (ed) (1991) All Their Might: Tales of the Shire of Kojonup, Western Australia. Kojonup Historical Society: Kojonup.			
		• Bignell, M. (1982) First the Spring: A History of the Shire of Kojonup, Western Australia. Kojonup Shire Council: UWA Press: Perth			

MANJIMUP		6,894			The Western Australian
		population: 9,764			Municipal Directory: 1994 - 1995
		towns: Manjimup, Pemberton, Northcliffe, Walpole, Deanmill, Palgarup, Jardee, Nyamup, Quininup, Windy Harbour.			The Western Australian Municipal
		significant historical attractions: Gloucester Tree, Big Brook Dam, Saw Mills, Museums			Association.
		industry: timber, agroforestry, horticulture, beef, sheep, dairy, tourism, light industry (horticulture), aquaculture, viticulture			
	2	"Clover Cottage" - Nelson Loc 66		1870	National Trust
		Deeside Homestead - Hay Loc 6, 35 km SE of Manjimup	M 19	1865	Perth
		Dickson's House - Vasse Hwy, Namup			
		Dingup Homestead - Nelson Loc 82, nr Junction Balbarrup Rd, 5 km East of Manjimup	M 21	1870	
		Dunreath Homestead - Loc 2229, 27 km E of Manjimup		1907	
		"Fernhill" Homestead - 6 km E of Manjimup		1867	
		Finsbury - Muir Hwy			
		Lake Muir Homestead - Hay Loc 9, 45 km E Manjimup		1856	
		Mayfield Park Homestead			
		Mordallup Homestead			
		Nabajup			
		One Tree Bridge - Res 20810 across Donnelly River, 21 km W of Manjimup	M 23		
		Palin's Bridge	M 28		
		Pemberton-Northcliffe Railway	M14		
		Perup Homestead - Hay Loc 4	M15	1870	
		Riverdale - Loc 239		1890	
		Riverside Farm - Nelson Loc d186, 36 km E of Manjimup		1870	
		Rockbridge - Loc 3670		1860	
		"St Erney's Homestead" - Pt Nelson Loc 3745, off Parson's Rd N of Quininup		1908	
		Stockman's Camp - Nr Northcliffe			
		Tobacco Farm Grp 1 - Nelson Pt Loc 429, Jnction Appadene Rd, 9/10 km W of Manjimup	M16	1930	
		Tobacco Farm Grp 2 - Nelson Loc 492, between Graphite & Ralston Rds		1920	
		Twin Lakes			
		Wandagarrup Homestead - Loc 1772, by Lefroy Brook Bridge	M 32	1920	
		"Warren House" - Lot 41		1862	

		Wilgarrup Homestead Group - 11 km N of Manjimup	M 27	1865	
		"Springdale" Farmhouse,(wood, slab, shingle house) - Loc 190, Booth Rd off Hwy, app 3 km E of Manjimup		1883	
		Young's Homestead - Nelson Loc 74, 20 km E of Manjimup off Muir Rd		1875	
		Fernslopes Homestead - Balbarrup - Nelson Loc 708, 12 km E of Manjimup, turnoff S of Rd, 300 m W of Ralph Rd Junction		1880	
		Finsbury - Muir Hwy 16 km east of Manjimup			
		Fonty's Pool Lot 3 of Nelson Loc 2711 approx 10km sw of Manjimup	M17		
		Brockman's Sawpit - 16 km S of Pemberton off Rowes Rd in Dombakup	M 24		
	2	Lake Muir Homestead			Australian Heritage Commission
		Dingup House, Manjimup			Canberra
		Springdale Farmhouse, Manjimup			
		St Erny's Homestead			
		Fernhill Homestead, Perup Rd, Manjimup			
		Fernslopes, Perup Rd, Manjimup			
		Perup House, Perup Rd, Manjimup			
		Tobacco Farm Buildings, 8 Plunkett st, Manjimup			
		Deeside Homestead, Muir Hwy, Manjimup	M 19		
		Fonty's Pool and Gardens, Seven Day Rd, Manjimup			
		Clover Cottage, Wheatley Coast Rd, Manjimup			
		Rockbridge Homestead, Wheatley Coast Rd			
		Manjimup House, Young St, Manjimup			
		Rivervale - Nyamup	M18		
		Young's Homestead - Nyamup			
		Wandagarrup Homestead - Vasse Hwy, Pemberton	M 32		
	3	D'Entrecasteaux Lighthouse - Northcliffe			
	1	Explorer: Lieutenant Preston in "Success" • explored the coastline west of Rame Head, • bivouaced near the mouth of the Gardner River, • made landfall a few miles west of Point D'Entrecasteaux, • walked overland to the settlement of Augusta, • crossed the Warren and Donnelly Rivers.		1831	Christopher Berry. (Geography Dept. University of WA) (1987). The History, Landscape and Heritage of the Warren District. On behalf of the National Trust of Australia (WA) and for the Shire of Manjimup.

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Surveyors: Captain Bannister and Mr Smythe • sighted the east shore of an 'extensive lake' (Lake Muir?) • moved down the upper reaches of the Frankland River • reached the Deep River • described country nearer Brokes Inlet • turned eastwards for Albany at Point Nuyts on the Southern Ocean		1831	
		Surveyors: Augustus Charles Gregory • encountered most, if not all, of the Warren district's major rivers • down the valley of the Donnelly from its upper reaches • described banks along the Warren River • passing Naemup Swamp • fresh water at Yeagerup Lake • headed downstream along the Gardiner River to ocean outlet • eastward toward Brokes Inlet • northwards passing to the west of Lake Muir • crossing the Tone and Perup Rivers • traversed almost the full length of the Perup River from its headwaters down to Quabicup Hill (Perup Homestead) • crossed the Yarraminnup River • encountering the headwaters of the Wilgarrup River	M22	1852	
		Explorer: Thomas Muir • exploring the country westwards of the family property, travelled guided by "natives" for over about fifty miles to reach this lake of 10 miles in length and three in breadth • explored the country further to the west, between Yeninup and Perup		1850s	
	2	Muir family: first settlers in Warren District securing pastoral leases in 1859 • "Forest Hill" farming • sheperding sheep at "Perup" • settled at "Topanup" (Deeside)	M19	1859 1855 1856	
		""The early settlers of the district....but the availability of water was an essential consideration....most of the early settlers...selected sites for their homesteads which were close to rivers or permanent water" (pp18)		1850s	
		Early settlement:			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		• 'Nabagup" on the east shore of Lake Muir		1856	
		• "a few years later he moved to the west shore of Lake Muir			
		• Wilgarrup - Loc 17 and 62: Charles Rose settled and sowed a field of wheat	M27	1857	
		• Manjimup Brook: Frank Hall		1858	
		• Manjimup House: John Giblett		1862	
		• Stoney Ford on the Warren River: Edward Brockman		1861	
		• Donnelly River (lower reaches): Thomas Scott		1861	
		• One Mile Bridge (northern outskirts of Pemberton): Pemberton Walcott		1862	
		• Warren House: Edward Brockman	M 33	1863	
		• Balbarrup Brook Flour Mill	M21	1860s	
		• Channybearup Brook Flour Mill		1860s	
		• Wilgarrup Homestead: Roses'	M 27	1865	
		• Lake Muir Homestead: built by 'ticket of leave men'		1865	
		• Dingup: Thomas Giblett		1865	
		• Glenpennant: Walter Blechynden		1866	
		• "Karri Hill" (now known as the One Hundred Year Forest): DeCourcey Lefroy at Yarkernup		1866	
		• Deeside Homestead: built by 'ticket of leave men' for Muirs		1866	
		• Fernhill: Jim Muir, farming sheep, cattle & wheat		1867	
		• Donnelly River pastoral lease: Adam Lindsay Gordon & Mount Bros		1867 1867	
		• Peppermint Grove (near the Warren River): John Mottram		1972	
		• Clover Cottage: Peter Wheatley		1876	
		• Fern Hollow: A.L. Clarke		1876	
		• Mica Hill: Charles Young		1882	
		• Riverside (junction of the Tone and the Perup Rivers): Isaac Doust		1861	
		• Coastal cattle leases on Gardner River & Meerup Coast: Edward Brockman	M 26	1880s 1880s	
		• Springdale: sons of John Giblett		1880s	
		• Mordalup (on the Tone River): Andrew Gordon			
		• Seaton Ross: Robert Forest Muir			
		• Fernbank: Muir			
		• Fernhill: Muir			
		• Fernslope: Muir			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		• Lake View: Muir • Dunreath: Alfred Doust • Colonels (at Calcup Ford): Colonel Vialls • St Erney's (at the confluence of several tributaries of the Warren River) • Mayfield (to the NE of the Balbarrup settlement): Jack and Belle Ipsen (standard Homestead Selection....sink a well....) • Finsbury: Frederick Kamman (orcharding and horticulture) • Seven Day Road selection: Archimede Fontanini • Selection at the junction of Big Brook and the Warren River: Clauder • Eastbrook: Paddy Collins • Ringbark Scheme (first settler): AR Ralston		1900s 1908 1906 1907 1906 1909 1907	
	2	• Vasse-Warren Road was built by convicts • Bridge over Warren near the Brockman homestead • "An 1872 map shows the roads in the district, including those linking the district with Mount Barker, Bridgetown and the Lower Blackwood....road system has persisted and developed further..."	M 33	1860s	
	Minerals & mining ventures	• Oil drilling near the mouth of the Warren River by Westralian Mining and Oil Corporation • Graphite found adjacent to the Donnelly River and mined around the turn of the century		1902 Early 1900s	
	Railway & Timber ventures	• Opening of the extended Railway line terminating in Manjimup • State Mill established to supply sleepers for the Transcontinental line • extension of rail to Pemberton (Big Brook Mill, later named Pemberton)		1911 1912 1914	
	2	Fonty's Pool: recreation Pemberton Pool		1925 1929	
	9	Experimental trout hatchery (Pemberton) Trout later introduced to the district's rivers.	M22	1930	
	Commercial use	Hydro-electic plant established on the Lefroy Brook using sawn karri to make water carrying pipes.		1930s	
	8	"construction of a number of major new mills was begun during the late forties and early fifteis in the Warren District. These included mills at the Donnelly (Bunnings - one of the last steam driven mills) and Northcliffe (Kauri Timber Company) opened in 1949, Quinninup		1940s & 1950s	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		(Millars) in 1951, and the Shannon (State Saw Mills) and Tone River (Bunnings) mills in 1952. Around this time, the power saw was replacing the axe and cross-cut saw for the felling of timber, and the steam mills were being replaced by electricity."			
Walpole	1	Sealers Cove - Nornalup Inlet		1826	Cresswell, G.J. (1989). The Light of the Leeuwin. The Augusta-Margaret River Shire History Group. WA
		Deep River of the Sealers			
Pemberton	2	Flybrook farm settlement: Group settlement scheme		1922	"A Guide to the Bibbulmun Track" (1988) Dept. of Conservation &
		Warren Bridge: Brockman farm (first settlement)		1861	Land Management: Como, WA
Walpole	1	Nornalup Inlet - native well	Forest Dept - Walpole: 2228 111 & 11 2227 1V & 1	1831	G. & L. Fernie P.O. Box 93 WALPOLE 6398 Ph (098) 401037
		Freshwater Creek - Nornalup		1910	
	2	On site dams and springs and tanks on roof		1910 onward	
		Graziers - Bell Brook, Landors Gully	M1	1840	
	3	Collier River Dam		1950	
		Aquifer off Walpole River		1910	
	4	From dams, not on broadscale			
	5	Minor to unknown in this district for wetlands			
		Numerous on line dams in local streams			
	6	Landor's Gully; Bell Brook above current bores Airfield Rd			
	7	Shannon and Deep remain only pristine "fresh"water streams			
	8	Major recreational fishery - Nornalup Inlet and Rivers			
		Professional and amateur - Broke Inlet			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
Walpole	1	Explorer: William Wairing Clarke - Frankland, Deep Rivers & Nornalup and Walpole Inlets	1A	1841	Gary Muir PO Box 198 WALPOLE 6398 (098) 401036
		Surveyor: Alfred Hillman - Inlets	1B	1833	
	2	Sealers planted vegetables at Sealers Cove	M 2 2A	1925 - 1842	
		Landor Brothers planted vegetables on Snake Island		1845	
		Bellanger, Pierre - Farming	2B	1909 - 1910	
	3	Walpole Township		1930	
		Rest Point	M 3	1920's	
	6	Walpole Nornalup Estuarine System (EPA Report) & "In Praise of a National Park"		1911	
	7	Ref: Jack Edmonds (Walpole) noted changes in species numbers in 1930's		1925 onward	
		Kim Swarbrick (grandson of Tom) noted changes in species numbers in 1930's		1930 onward	
	8	Swarbrick - Rest Point East of Township		1925	
		Removal of Timber at rest point by Swarbrick		Late 1800s	
	9	Fishery tried to be started in 1921 - Swarbrick		1921	
		Two started after WW II			
Walpole	2	Nornalup Land Settlement (later to become known as Walpole) to foster a flourishing agriucltural community: James Mitchell's scheme		1930	Coalmine Beach Heritage Trail: WA Heritage Trails Network.
	1	Explorer: Preston: 18/4/1831: pg 6, "met the natives...conducted to their wells"		1831	Fernie, G. & L. In Praise of a National Park.
		Nairn Clark - 1841: Freshwater Ck (Bellanger Land) pg 8, pg 43, map		1841	
		pg 39: type locality of Red tingle - Deep R, 1912, Mt Clare	M4	1912	
	2	Tinglewood blocks, locs 1239, 1240 - direct access to Inlet and sea, settled by Frank Skinner Thompson in 1911	M5	1911	
	8	Millars timber concessions, based in Augusta			
	6	Ficifolia reserve Class A 1914, Reserve 15677		1914	
	3	1921, first group settlement for Manjimup		1921	
	Historic routes	clearance for road half a mile N of Walpole inlet - dictated location of Walpole		1921	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	2	Summer camp for early pioneers from Warren District - between Rocky Point and "The Peppermints" (w side of inlet)	M6		
	Historic routes	Bridges joined by road - outstanding scenery • over Walpole R • Bridge over Deep R	 M7 M8	1921	
	2	Surveyed blocks N of Deep R (loc 1239, 1240) taken up by Thompsons		1921	
		Moirs camp at Crystal Springs (service coastal grazing lease)	M9	1870	
		Land grant at Rest Point granted to Swarbrick		1926	
	8	Saw mill on timbered block: Swarbrick pg 52		1926	
	2	pg 56: Freshwater spring and grasslands at the head of Landors Gully			
		Walpole gazetted			
		The Peppermints - camp			
	6	pg 62 - 64: discussion of vesting of waterways within a National Park 1910 - 1989. (or rather the continued absense of recognition of waterways as part of a NP)			
	1	Nairn Clark wrote of "rich pastures for sheep and cattle with plenty of fresh water between Broke Inlet and the west River flowing into Nornalup Inlet			
	2	Landor's residence at the Deep River (possibly at the top of the present Landor's Gully)		1845	
	8	Timber (jarrah and karri) cut from the Deep River		1859	
	2	Andrew Muir settled Forest Hill		1851	
		Andrew Muir's sons settled Deeside and Lake Muir		1860s	
		Governor Weld - stayed at Brockman station on the Warren		1871	
	Historic routes	William Moir pushed a track from Frankland River at Crossing Falls to Deep River and on to Bell Brook		1870	
	2	Banksia camp used by Muirs	M10	1870s	
	3	"Nornalup does not appeal to me as the place for a man with a 160 acres unless water carriage can be arranged" Frank Wilson, Min. for Agriculture - pg 29			
	1	Newdegate Island	M11		
	8	Monastry Landing	M12		
	Historic routes	Reasonable landing and watering places - Cape Leeuwin and King George Sound			
		von Mueller and Andrew Muir - Lake Muir to Nornalup		1877	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	1	Nornaculup Well near Bar	M13		
		Shannon Townsite Deeside Road Wheatley Coast Road Donnelly Well	M 25 Route 11 Route 12 M 30	Pre 1900	(Information from Pierre Horwitz)
Bibliography		• Fernie, L. & G. (1989) In Praise of a National Park.			
		• Bellanger, B. (1980) Champagne & Tingle Trees. • Tapley, M. (1987) Full Fifty Years and Fifty Very Full Years. Albany Advertiser. • Berry, C. The History, Landscape and Heritage of the Warren District. Shire of Manjimup Report. • Agriculture, Department of: Tobacco Growing files, (see An 82, Battye Library (B.L.), Perth) • Breen, D. (n.d.) The Wheatley Family of Bridgetown, (in B.L. QB/WHE). • Braysich, M. (1966) The History and Development of Trout Acclimatisation in WA with special reference to Pemberton. (in L.L. Q639.375 Bra) • Colebatch, H. (1929) A Story of a Hundred Years, West Australian Government Printer, Perth. • Cooper, N. (1964) The Northcliffe Group Settlement Scheme 1924 - 1934, (in B.L. 333.76 Coo) • "Crosscut" (n.d.) 'Manjimup and Thereabouts - Fleas, Frogs and Fiddles', newspaper cutting, undated (possibly the West Australian, 1920s). • Cross, J. (1833) Journals of several expeditions made in Western Australia, During the Years 1829, 1830, 1831, 1832, Under the Sanction of the Governor, Sir James Stirling, London. • Cullity, M. (1979) The History of Dairying in Western Australia, University of Western Australia Press, Nedlands. • Dawson, F. and M. (n.d.) Southwards for a Home. (in B.L. PR 7442). • Deacon, J. (1951/52) 'Pioneering in the South-West - The Story of Manjimup', J.R.W.A.H.S., Vol IV, Pt 3, p 54-67, and Pt 4, p 34-42. • Evans, H.D. (n.d.) Pioneering in the Karri Country, (in B.L. 994.1 PEM)			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		• And Dozens More As Per The Ref List In "The History, Landscape And Heritage Of The Warren District" By Christopher Berry For The Shire Of Manjimup.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
NANNUP		2,953 sq kms			The Western Australian
		population: 1,084			Municipal Directory: 1994 - 1995
		towns: Nannup, Donnelly River Mill			The Western Australian Municipal
		industry: timber, dairy, beef, horticulture, agroforestry, tourism, cottage industry, viticulture			Association
	2	"Biddellia" Homestead via Nannup - 30 km S of Nannup by Barlee Brook	NA 3	1876	National Trust
		Donnelly River Mill	NA 4		Perth
		Ferndale Homestead			
		Jalbarragup Bridge - MRD 3978, Loc 1574, Over Blackwood River	NA 1		
		Old Orchard House - Lot 7893 River Rd			
		Old Templemore - 8 Warren Rd		1908	
	1	John Forrest: surveys of Nannup area		1860s	Nannup Heritage Trail WA Heritage Trails Network
	2	Railway linked to Nannup from Busselton - transporting timber & farm produce		1909 - 1984	
		Nannup Brook Bridge	NA 2		
		Farming families took up leases		1850s 1860s	
		Bridge built over Blackwood River at current Nannup townsite Upstream of the bridge is a horse ford that served as major resting point for early settlers and travellers.	NA 5	1866	
	8	Barrabup Timber Mill		1908 - 1925	
		Ellis Creek Timber Mill	NA 10	1913 - 1926	
		Bunnings Mill: south of Higgins Swamp along Warren Rd - the original Nannup mill was steam driven...water for the boilers came from a dam on the upper section of East Nannup Rd by pipeline which also provided local farmers with water for domestic use. - still in current use.		1925 -	
	1	First European Exploration up stream from Augusta by Thomas Turner		1834	Ms. Prue Pocock Nannup Tourist Centre
		Surveyor A.C. Gregory downstream		1845	4 Brockman St

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	2	First settlement and farming development along the Blackwood River at Darradup and between Balingup and Nannup (J. Blythe: Loc 6/1558; 6/1559; 6/1560)	NA 6	1850 - 1860	NANNUP 6275
	3	Water supply for domestic purposes from the Blackwood River and from springs and brooks flowing from the hills.			
	7	Blackwood River was suitable to wash in at turn of century.			
	2	Templemore - Warren Rd, Nannup			Australian Heritage Commission
		Biddellia Homestead - Nannup	NA 3		Canberra
	2	Higgins: • up Blackwood River to where it was crossable by ford, continues upstream to Tanjanerrup - places of many waters - Tanjanerrup Farm • Also took up land on Majenup Brook	NA 7 NA 8		Cresswell.
	2	Nannup Railway Bridge	NA 9	1909	(information from Pierre Horwitz)
Bibliography:		• Gilbert, Charles. (n.d.) History of Nannup. Nannup Shire Council.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
SHIRE OF NARROGIN		1,618 sq kms			The Western Australian
		population: 865			Municipal Directory: 1994 - 1995
		towns: Highbury, Yilliminning, Nomans Lake			The Western Australian Municipal
		signficant historical attractions: Albert Facey House, Narrogin Heritage Trail			Association.
		industry: farming, abattoir, piggeries, earthmoving			
TOWN OF NARROGIN		11 sq kms			The Western Australian
		population: 5,028			Municipal Directory: 1994 - 1995
		significant historical attractions: Railway Dam			The Western Australian Municipal
		industry: timber milling, brick making, abattoirs, light industry, livestock			Association.
	2	"Minabbie" - Konderning Pool, Nth of Geeralying			National Trust, Perth
		Dryandra Forrst Settlement, Reserve No 1847 (natural listing)			
		Lake Toolibin, 27 miles from Narrogin (natural listing)			
		Mallet Forest (natural listing)			
	7	Lake White - onset of salinity		1956 - 1960	Ms. Angela Sanders c/ Dept of CALM
		Narrogin Brook - onset of salinity		1931 - 1935	
		Little Lake White - onset of salinity		1956 - 1960	
	1	John Septimus Roe - explorer		1830s	Mr Maurie White Hon Curator Old Courthouse Museum PO Box 141 NARROGIN WA 6312 Ph: ?
	2	Shepherds from Wagin, Wandering and Mourambine, followed water courses and used pools		1860s	
		Kundering Pool on Williams River, W of Narrogin	N 1	1860s	
		Gnargojin Pool on Narrogin Creek (current location of Narrogin)		1860s	
		Yilliminning Pools East of Narrogin		1860s	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Sandalwood collectors & mallet bark strippers: • Stoned soak near Birdwhistle Rock - E of Narrogin • Four Mile Well - E of Narrogin • Ford at Rocky Crossing near the Kunderning Pool - W of Narrogin • Stoned Ford to cross the Arthur River at one end of Wolwolling Pool near Highway S of Narrogin			
		George Dyson at Kunderning - farming and pastoral settlers		1870s	
		Homesteads built close to natural springs and pools: • WF Wiese at Bailaling Spring E of Narrogin • W Graham at Torbling Spring W of Narrogin • ER Wiese beside Wolwolling Pool S of Narrogin • The Pustkuchens at Marramucking Well E of Narrogin • JH Stevens at Dumberning Spring W of Narrogin	N 2	1870s & turn of the century	
		Sheep dips and washes: Williams River Old Forest Lodge on Highbury West Rd Narraking Gully near Highbury Newman's sheep washing pool Taylor's Soak		1870s & turn of the century	
		Pools and creeks were favourite gathering places for picnic parties several times each year			
		Chinese settlers moved in from Goldfields: natural soaks and damp patches for small market gardens, Trefort property immediatley north of Narrogin Dumberning location No. DAA178 to W of Narrogin		1890s & 1900s	
	3	Township of Narrogin resulted from the railway being built by the West Austraian Land kCompany		Late 1880s	
		Gnargojin Pool - establishment of railway siding to supply water to steam engines		1880s	
		Narrogin Creek - railway dam built across, close to the pool and railway station			
		Larger railway dam built on the southern extremity of the town across a small tributory of the creek, complex of deep channels dug to collect water from the catchment area to the W.			
		Railway dams: Yoraning to the N of Narrogin			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Congelin to the NE of Narrogin			
		Domestic water for town use derived from public and private wells tapped into underground stream running roughly north-south through the middle of the town.			
		Public well opposite the Duke of York Hotel in Federal St			
		Public well now the Water Authority block of Felspar Street			
		Bottle Creek - W of town dammed to form a reservoir for domestic water, fed by an extensive pattern of channels and large bitumenised run-off slope in the catchment area. Served until the Collie pipeline came through.		1920s	
	5	Narrogin Creek: • straightened • periodically cleared of bullrushes and weed growth • mosquito swamps cleared • storm water pipes feed into creek • waste water drainpipes from two large hotels across railway tracks • current landscaping with artificial pool created using recycled effluent water • waste water in early days fed into creek from large railway locomotive maintenance depot and butter factory			
	7	Saline water of the Narrogin dam caused big problems for the steam locomotives.			
	2	Railway dam - water for steam trains - now recreation			Mr Ned Crossley Dept. of Agriculture 10 Doney St NARROGIN 6312
	3	Govt. dams - drought relief - • Toolibin • South Toolibin • Dulbinning		1930s	
	5	Toolibin Lake used to fill each year but not so often these days despite continued land clearing			
	7	Lakes below Toolibin salty for at least 50 years			
	3	House well			
		Rain water tank (house)		1947 - 50	
		Rain water tank (school)		1935 - 1943	
		Sandpit by railway line (Hillman Dam) (dried up in summer)		1907	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	7	Government well: "like rainwater"			
		House well "always muddy"			
	7	Lake Towerrinning - onset of salinity		1971 - 1975	Ms Angela Sanders c/ Dept of CALM
		Arthur River (specific location according to study) - onset of salinity		1941 - 1945	
	1	Surveyor: John Forrest: describes a location within the present townsite as the original survey for Narrogin, referring to Narrogin Pool.		1869	Narrogin Heritage Trail. Settlement and development
	2	The Railway Act allowed the Land Company (building the Railway line from Albany to Beverley) to acquire the Narrogin Pool as a watering place for its engines.		1887	of the Narrogin District. WA Heritage Trails Network.
	1	Surveyor: William Angove: plan for the projected town as a basis for development.		1889	
	2	"many settlers offset the financial problems caused by poor ...harvests by selling sandalwood and mallet bark..."			
	8	"The bark of mallet trees growing wild...was almost accidentally discovered to be a useful agent for the tanning and preservation of leather, and large areas around Narrogin were planted with the trees to serve as a long-term source of income."			
	7	"The brewery's demise was due to the beer, which was described as tasting like mallet-bark juice, possibly due to the quality of the water available." (built and operated by Nicholas Bushalla)	(Her.Trl: 2 Egerton St)	early 1900s	
	2	"A service station is on the site of the town's first well, the main source of water until 1908, when another source was discovered and Milars Timber Yard was set up on the site."	(Her.Trl: 2 Egerton St)		
	2	Narrogin Four Mill built by J. Robertson and H. Marsh , expanded in 1912 to electricity.	(Her. Trl:2 Fairway St opp Furnival St		
		Doddum Farm: vigneron John Dodd: grew grapes	(Nar Dist Trl: 1)	1880	
		Hillside: Trefort family farming dairy cows and poultry, vegetables and orcharding, wheat and oats.	(Nar Dist Trl: 2)	1892	
		Chuggamunny: (site of barracks used by rail workers), left into Whitform Rd (No tp then left into Cuballing Rd SW	(Nar Dist Trl: 3)	1880s	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Nebrikinning: (Wandering-Narrogin Rd S) also known as Thistledale taken up by James Fitt in 1890	(Nar Dist Trl: 4)	1886	
		Murrin Murrin: (Cuballing Rd SW N), "chosen because of its excellent supply of fresh water (the well at the spring was seemingly inexhaustible)", taken up by the Barron family.	(Nar Dist Trl: 6)		
		Sylvania: (Spouse Rd E), taken up by T. Pustkuchen, on the creek running from the East, on the Mourambine Track.	(Nar Dist Trl: 7)	1904	
		Rose Valley: (Spouse Rd W),	(Nar Dist Trl: 8)	1904	
		Minigin: settled by Edward Barron. ("The house he built on the other side of the river .....)	(Nar Dist Trl: 10)	1871	
		Rosedale: originally taken up by Clayton and Rintoul.	(Nar Dist Trl: 11)		
		Denabling: established by Ted Hardie	(Nar Dist Trl: 12)		
	1	Bannister Site: originally chosen as a strategic point for a military base. (Carter's crossing)	(Nar Dist Trl: 13)		
	1 & 2	Carnegie: • start of John Forrest's survey up the Williams River • home built by William Cornwall.	(Nar Dist Trl: 14)	1872 1910	
	2	Geeralying: Stanyford Cowcher established property on the site of the Gearlin Aboriginal camp.	(Nar Dist Trl: 15)	1893	
		"Until a bridge was built here the only way over the Williams River in flood was at the rock crossing."	(Nar Dist Trl: 17)		
		Kunderning Pool: "This natural rock crossing and pool was on the Mourambine Track and part of the original tillage lease granted to George Dyson	N 1 (Nar Dist Trl: 18)	1870	
		Dumberning Spring: "The Stevens family obtained a tillage lease of the freshwater springs here ..."	(Nar Dist Trl: 19)	1871	
		Cooraminning: lease registered under the name of Bingham. Surveyor General, JS Roe came up through here from the Tone River	N 3 (Nar Dist Trl: 20)	1835	
		Torbling Spring: originally an Aboriginal watering hole, property established by Graham family, running one of the earliest dairies.	(Nar Dist Trl: 21)	1900	
		Firle: established by Johns family.	(Nar Dist Trl: 22)	1900	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Narrogin Brickworks: first established by Goldsmithe and Livings	(Nar Dis Trl: 23)	1900	
	1	Ch. 1: documents importance of water to Aboriginal inhabitants, and their willingness to share water with explorers and early settlers.			Pustkuchen, O.C. (1981) The Way Through - The Story of Narrogin Town of Narrogin, WA.
	2	Ch. 3: Shepherds used old native tracks by folowing river course: • "Best watering places (native) proved attractive for first homes" • Grainger's grave near railway crossing between Williams & Narrogin • Rocky Crossing - most important point on the whole upper river to sheperds • Kunderning Pool - Dyson c1871 home p. 45 • pg 46: Bingham pastoral lease - found on "good water" of Coocamining Ck • Dumberning Spring - native camp and Stevens homestead (now demolished) c1871 • Gnilerminning Pool - taken up by C. Smith c1871 • pg 48: "importance of water to first-comers" dispute between Quinn and Dison (sic) over use of watering place • in 60's...pastoral leases...by way of useful pool of fresh water.			
	2	Chapter 4: Sandalwood and Mallet bark: • importance of native springs and soaks, and native tracks • "hand in glove" with sheperding • Kunderning Pool, Cooraminning Spring • Sandalwood cutters track: Mokine Spring Wolwolling Pool Narrakine Ck • Springs and soaks noted on Surveyor Oxley's 1892 traverse, already known (Upper Arthur R to Perth) • pg 62: Marramucking, Marramucking well • Yilliminning Pool	 N 4 N 2 N 5		

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Chapter 5: • Narrogin Pool - W. Shaddick c1871 - first tillage and pastoral lease at Narrogin itself. Pool later transferred to the railway. • pg 68: Natives guiding early settlers to water again • Jugominning Spring • Ballaling Spring • pg 70: W. Lukin shepherded east of Narrogin Pool, out to Toolibin where there was a permanent supply of water near lake • pg 71: ref to Class A or Class B • pg 71: Quartermaine gained pastoral and tillage leases (to include Narrogin Pool?) c1860 - 1865 • also to include springs of Caballing, Boundyne and Ballalling - "most of the water on the North East of Narrogin"			
	Historic routes	Chapter 6: Railway: pg 82: land grants along railway line first rains may have drawn water from creeks and pools by hose very soon dams and tanks became important Cuballing Pool and Yornanning: importance as watering places for Railway (but not in Blackwood catchment)			
	2	Chapter 17: • west of cemetery (just out of Narrogin), present day catchment, dam and its drains solved part of Narrogins water worries for many years • water reserve • Geeralying Spring (7 miles from Narrogin) land around it taken up by TS Cowcher in 1893 • Manaring Spring "Aboriginal water" - a place hard to find today, but of great importance to the first pastoralists" • Booran Spring - spring reserve? • Wells sunk by M. Quinn in 1866 in lot 4978 (middle of) between Dumberning and Geeralying - dispute between Quinn, Hancock and Stevens see p 294 • Howting farm or creek crossing of the south road (!?) • pg 301: Quinns Pool and • Wangelin Pool: both on a tributary of Arthur • Mokine Spring - J. Taylor 40 acres (surveyed in 1874) on Buchanan River?	N 6 N 8 N 7 N 4		

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		• Quinn moves to large strip of country west of Wolwolling Pool to Ballagin Pool' • "Glenfield" • Quinns Pool watering place for travelling stock • "Noalimba" homestead - where Newman family washed sheep in a pool in creek (around the time of Quinn c1870's?) • pg 302: "There were a number of wash pools noted on the early maps... • Wolwolling pool - "good water" pg 308 Homesteads on it: "Place of weeping" c1900 water fresh. Popular camping spot for aborigines land on west "remained reserve" • summer water stories p 310.	N 9 N 12		
	6	Booran Spring - spring reserve? check on map			
	2	Chapter 19: • pg 311: Narrogin Valley Way (surveyed by Oxley) • Oxley started survey at crossing of Arthur R (now a bridge) • Whin Bin Rock - well known water • Carcunning Rock: natural water catchment on east side native camping area horses used water c1930 • Yillimining Pool • pg 323: Rushy Pool - settled 1905 by Pethybridge (but others in the area already). ref to "beautifyul" water in the sand runs (banks of sand brought down by flood waters, common to most of the creeks -m now salt) • Oxley's surveying routes 1892 • pg 331 - 2: description of dam sinking (and importance of water again) • Tarblin picnic spot • pg 334: fish "planted" in flood years (lakes around Toolibin) • Marramucking well - description of its use (early, pre-car use) • pg 338: Birdwhistle Rock - water now dried up (aboriginal legend) • Walyuring Spring - best water of the district (east of Yillimining) • pg 338: stock routes and sandalwood cutter tracks - soaks and springs along route	 N 10 N 11		

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		• Wogolin - well known watering place.			
	9	pg 334: fish "planted" in flood years (lakes around Toolibin)			
Bibliography:		• Crabb, Dawn. The Way to St. Werburgh's. (Grey Egerton-Warburton's story)			
		• Pustkuchen, O.E. (1981) The Way Through: The Story of Narrogin (Artlook Books.)			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
WAGIN		1.950 sq kms			The Western Australian
		population: 1,940			Municipal Directory: 1994 - 1995
		towns: Wagin, Piesseville			The Western Australian Municipal
		significant historical attractions: Wagin Historical Village			Association.
		industry: wool, grain, pigs, engineering manufacture, grain feeds			
	2	"Tillellan"	WG 3		National Trust
		Lot T24, cnr Tudor & Tudhoe Sts			Perth
	2	Early settlement:		1879	Wagin Heritage Trail
		Railway Line completed, stopping place at Wagin Lake.	Wagin Her Trl: 15	1889	WA Heritage Trails Network
		Brick works: adjacent to the railway line.	Wagin Her Trl: 15	1889	
	1	• The Arthur River at West Wagin, crossed and named by Roe and Stirling..."coming on a fine river twenty four yards in width in long reaches and apparently eight to ten feet deep and flowing very slowly..." • "This point was about one and a half miles up stream from Nobles Bridge, N of AW Harvey's property...went up river to find a crossing point. At about a hundred yards up they came to an island about 200 yards in length which can still be seen today and just above this a crossing point"..."The first long pool Wanaking is in open country and very attractive..." • "the land across the river was swampy and ..."Norcott Plains"...finding a good pool of water about 15 yards long...camped on a tributary of Mailing Gully...They found a native hut prior to making camp and surmised correctly that they would find water nearby. This proved to be the case with the discovery of a three foot well dug by the natives that contained good water. They marked a tree III in the vicinity of the camp...." pg 30 • ""Further on they struck another creek containing brackish water. This was a tributary of Bockaring Creek SE of DA Kerr's property...headed SE to a ...picked up a creek bed which 'tracing in a southern direction at the end of half a mile we had the	1835		Nelson, L. (1985) The Great Southern Expedition of 1835. Nelson: Albany Advertiser.

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		satisfaction to find a little muddy but good water in a native well in the channel..." pg 32 • "Altogether the days travel in the Wagin-Woodanilling district had not been too bad for the party. They started their day from their camp at Lime Lake watered by a native well and finished the day in a similar situation at Yairabin Well and no doubt the experience of the native tracker Migo was instrumental in locating these established well sites." pg 32			
	1 & water development	Pantaping Rock - water catchment Nobles Bridge & Wanaking Pool - Roe/ Stirling Mailing Gully - Roe/Stirling camped on tributary Yairabin Well - Roe/Stirling	WG 1 WG 2	1835	
Bibliography		• Nelson, L. (1985) The Great Southern Expedition of 1935. Nelson: Albany Advertiser			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
WEST ARTHUR		2,850 sq kms			The Western Australian
		population: 1,000			Municipal Directory: 1994 - 1995
		towns: Darkan, Duranillin, Moodiarrup, Bowelling, Arthur River			The Western Australian Municipal
		significant historical attractions: early convict labours, restored kitchen of Mt Pleasant Inn, Woagin Police Barracks, graves dating back to 1860's			Association.
		industry: mixed farming, tanning, timber.			
	2	Bowelling Railway Station	WA 4		National Trust Perth
		Arthur River Group, (Old Mail Coach Staging Post) - Lot 1 excised from Williams Loc 36 and Reserve 21211		1860s	
		"Woagin" - Arthur River, Williams Loc 13903, at 131 mile peg	WA 1	1860s	
	2	Gibbs family settled this area		1867	Mr Tom Perry 11 Arthur St DARKAN (097) 361095
		Tom Perry senior		1898	
		Development only really started in 1920's			
	3	First settlers relied on soaks and wells, later dams, rain water tanks on buildings			
	5	Whittington contours banks used extensively			
	9	Marron and Perch fished until disappearance in 1955/56			
	1	T. Bannister and A. Hillman (Explorers and surveyors) : possibly aboriginal rock holes, creeks and rivers		1831	Mrs Lynette Alice White
	2	Shepherds - well in creek	2a		RMB 136
		Government well by Dardadine Siding (railway), fettlers' well nearby	2b		DARKAN
		Hillman Dam (railway)	1a		WA 6392
	3	House well	3a		
		Rain water tank (house)		1947-50	
		Rainwater tank (school)		1935-43	
		Sandpit by railway line (dried up in Summer)		1907	
	4	Summer garden - source underground created "wet patch"	4a	1930s-1940s	
		Dam water (spring) for stock early 1950s (Dardadine), earlier other		1951	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		farms			
	7	Government well "like rainwater"			
		House well "always muddy"			
	2	First settlement between the Beaufort and Arthur Rivers		1850s	Darkan Heritage Trail: WA Heritage Trails Network
		Darkan declared		1905	
		Farming, mostly sheep, some cattle			
	1	Explorer: Bannister & party		1830	Tourist Committee
	2	Grazing leases granted		1854	Shire of West Arthur
		Hillman Dam includes channels over 1 mile long dug by hand and concreted to bring water from Hillman Rock.		1930s	Borrows St DARKAN 6392
		Lake Towerinning, longtime recreational use.	WA 2		Ph: (097) 361003
		Trigwells Bridge, Moodiarup	WA 3		
	1 & 7	All three rivers crossed "within...six miles" of travel • Kojocup (Spring where natives led party to thhe spring. Good water, freshwater • Beaufort River (Very large pool of freshwater) • Arthur River (fresh and salt water pools) • Hillman River (excellent water)		1837	Harris, . (1837) Joural Overland from King George Sound. Perth Gazette, 18 March 1837.
		Namine Swamp (see Williams)	WA 5		(information from Pierre Horwitz)
Bibliography		• Spencer, Ida. (1966) Darkan Early Days.			
		• Bird, John, (1990) West of the Arthur.			
		• Around West Arthur. Shire of West Arthur.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
WICKEPIN		1,989 sq kms			The Western Australian
		population: 925			Municipal Directory: 1994 - 1995
		towns: Harrismith, Tincurrin, Toolibin, Wickepin, Yealering			The Western Australian Municipal
		significant historical attractions: Albert Facey"s Heritage Trail			Association.
		industry: grain, livestock production (including studs)			
	2	Albert Facey Homestead			National Trust
		Old House, Lake Yealering			Perth
		Railway Tank and Stand			
		Wickepin Lodge			
	2	Wickepin town began as a watering point called Yarling and opened for selection 1893. "During the formative years numerous dams and well were constructed - some still exist.		1893	"Wickepin: The Watershed of the South-West" Wickepin Tourist Information Centre
		Yealering Lake was a valuable source of fresh water and recreation for settlers. The surrounding land was released in 1870's.		1870	
Wickepin	2	Establishment of Railway on Yarling Brook and establishment of Wickepin Town site.		1909	Facey Heritage Trail. WA Heritage Trails Network.
Tarling Well	2	12 kms from Wickepin on Williams-Kulin Rd: popular site for weary travellers and their horses, focal point for delivery on local run between Narrogin and Gillimanning.The well was built and small settlement grew around it.		1893	
Inkiepinckie School	2	School built by local residents from mud bricks made on site from a nearby creek			
	2	First town well in Wickepin still evident			Mr Bruce Mead
		Tarling Well			Shire of Wickepin
		Wickepin Reservoir		1964	P.O. Box 19
		Wickepin Tank			WICKEPIN 6370
		Mungerungercutting Well			
		Inkiepinkie well near old school			
		Railway Catchment: old school trains			
		Catchment Rocks put in place by prisoners of war			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Levi Rock Well: main water point for locals			
		White Well: 110 feet deep, still there: key water supply for farmers for many years near Levi Rock			
		Burdenalling Soak			
		Boyline Soak			
		Namma Hole: Fleays Farm: first supply of fresh water		1899 - 1900	
		7 Mile Reservoir: Stock Route Dam for drovers			
		Wickepin Springs: key supply fresh water still runs fresh today		1885	
		Scrivener Soak			
		Peecanning Soak			
		Babbebilly Soak			
		Bulgulpinn Soak			
		Gingining Spring: still used today for house use		1900	
		Cuterning Spring			
		Yanyening Spring			
		Wagebanering Spring			
		Toolibin Lake: trees on Lake bed still green			
		Walbyring Lake: salt			
		Dulbining Lake: salt			
		Pingerlin Well			
		Walters Hill: highest point for some miles, trig station			
		Stock route: dam: 10 mile Old Hall: cricket, tennis, football			
		Poraking Soak			
		Wocolin School: Stock route dam, tennis			
		Boorning Soak			
		Fleays Farm: 90 feet well, fresh water for stock, biggest farm in shire in the early 1900's, still there today but salty			
		Bealgaring Rock Hole			
		Malyalling Rock provided water for farms, football, cricket, hockey and school water			
		Quanaminning Soak			
		Cuballing Spring			
		Wocolin Soak			
		Gillimaning Spring			
		Fred Well, water for Gillimanning townsite			
		Cuneenying Spring			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		Bibbleverring Pool			
		Malyalling East Stock Route Dam			
		Gnorlarling Soak: old school site			
		Historic route: Stock route Dam: Elismore Rd, Wocolin South Rd			
		Historic stock routes and dams: the shire has a number used by drovers in the early days			
		White Well: on the Wickepin-Pingelly Rd and Connodine Rd corner for early travellers		1890s 1960s	
Bibliography		• Facey, A.B. (1981) A Fortunate Life. Penguin.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
WILLIAMS		2,295 sq kms			The Western Australian
		population: 1,073			Municipal Directory: 1994 - 1995
		towns: Quindanning, Dardadine, Tarwonga			The Western Australian Municipal
		significant historical attractions: Williams Heritage Trail			Association.
		industry: wool, cattle, grain, tourism			
	2	"Boraning" - via Williams			National Trust
		"Millbrook"			Perth
		Williams Agricultural Hall		1898	
	1	Williams River		1851	Mr J.Epiro Shire Clerk PO Box 96 WILLIAMS WA 6391 Ph: (098) 851005
	2	Farming - own water supplies		1959	
	2	Agricultural Hall - Williams			Australian Heritage Commission
		Millbrook - Albany Hwy, Williams			Canberra
	1	Explorer: Cpt. Thomas Bannister: "travelled up the valley of the Canning River, through the area of the upper Bannister River and arrived near Crossing Pool on the Hotham River"		1831	Williams Heritage Trail: WA Heritage Trails Network. WA Heritage Committee.
	2	"the track became the basis for the Old Sound Road"...."remains of old culverts and gravel pits...."...." Boraning Bridge in the Williamsburg Townsite reserve...." (from Bannister's journey)		1850s	
		Flour Mill: powered by a steam engine (within town boundary of Williams)		1870	
		• First Bridge built by convicts (near the current bridge) • Second Bridge over the Williams River built Boraning • Third built at Quindanning • Present bridge built in place of first bridge		1855 1895 1890s 1911	
		Convict tank: (known as the Old Well): underground tank constructed of bricks and cement, water supply for old post office.		1880s	

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
	2	Old Sound Rd route, water crossings include: • Warrening Gully crossing, 10 km N of Williams River • a crossing over a tributary to Warrening Gully, 5 km N of Williams River • Williams River crossing, site of military barracks • Jerremaitin Creek, S of the Wiliams River • Wildhorse Creek crossing, tributary to the Hillman River • First Hillman River crossing, end of Williams Shire • Second Hillman River crossing, West Arthur Shire • Arthur River crossing (Bennet Bridge) • Beaufort River crossing		1839	Mr Bill Petchell RMB 508 WILLIAMS 6391 Ph: (098) 057032
		Harris farm building, near Williams River		1836	
		York Rd Well, road reserve 9 km N of Williams		1836	
		Gregory's Well, near Albany Hwy, 6 km S of Williams	WL 1	1850	
		• The Williams River had many deep freshwater pools and all of the river in the Williams Shire was freshwater. • In the Narrogin Shire later in the season, the river contained brackish and saltwater.			
		Pools in the Williams River include: • Pollards Pool, 3 km W of Williams • Strangers Pool at Josbury Rd siding • The Wash Pool, a stoned washpool is still evident, 200m from the junction of the Williams River and Starting Creek.			
		Pools that are now filled with sand worked down from land clearing: • Jennemaitin Pool, junction of Williams River and Jerremaitin Ck • Pumphries Pool • Baptising Pool & site of Baptist Church, 4 km E Mandiacking Pool, largest in the Williams Shire			
	1	Starting Creek Campsite, (junction of Williams River & Starting Creek), camping parties include: • Bannister, Dec 1830 • Hillman & Harris: Jan & Oct 1835 • Gov. Stirling & Roe, Oct 1835 • Lt Bunbury, 1836		1830 1835 1835 1836	
	1	Some locations along route from Williams River to Walpole: part of an exploration for a route from the Swan River Colony to King George Sound: Late December 1830 to January 1831		1830 - 1831	Burton, J.L. & Jackson, . (1993). Frowning Fortunes: The story of

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
		• Namine Swamp (south of Williams River) • 1.6 km south of Three Mile Gully • Arthur River (east of the causeway and south of Modiarrup) • Swamp lands north at Mettebinup Brook • Tone River (flows SE before it turns sharply to the W near Tone Rd.) • Lagoon about 3.2 km N of the Boyup Brook-Cranbrook Rd, and E of the wild dog fence • Bolbelup Creek • Bokarup Swamp • Frankland River near Chitelup Hill • Frankland River, upstream of Beven Rd ford • Frankland River, near Mt Frankland (about 3.2 km away down river.) • Croea Brook • Deep River above Gladstone Falls • Banksia Beach/Camp, in the D'Entrecasteaux National Park, just W of the Walpole Nornalup National Park • Deep River (divided by an island)	WA 5 WA 6		Thomas Bannister and the Williams River District. Hesperian Press.
Bibliography:		• Chate, A.H. (1935) The Williams. The Western Australian Historical Society Inc. Journal and Proceedings, IV, 5, 1935. • Cowin, H.G. (1971) The Williams. Shire of Williams. • Richards, R. (1978) The Murray District of Western Australia: A History. Shire of Murray.			

Location/Shire	Land Use Activity	Location and Type of Water Used	Map Ref. No.	Dates	Source of Information
WOODANILLING		1,126 sq kms			The Western Australian
		population: 440			Municipal Directory: 1994 - 1995
		towns: Woodanilling			The Western Australian Municipal
		significant historical attractions: Heritage Trail			Association.
		industry: wool, grain			
	2	Kalang Farm, Shenton Rd			National Trust
		"The Lakes"			Perth
	7	Lake Norring - onset of salinity		1931 - 1935	Ms Angela Sanders c/ Dept of CALM
	1	• "Topping a sand ridge east of Robert"s they sighted open water five to six miles away to the north west...Norring...1835...stopping for lunch on the Boyerine Creek, where they found both good fresh water pools and feed... Roe picked out the chain of lakes to the NE and could discertn water to the south east where he expected the chain would run into the Beaufort River..." pg 76 • "This was a creek running down into Quarbing Lake..." pg 82		1835	Nelson, L. (1985) The Great Southern Expedition of 1935. Nelson: Albany Advertiser.
	2	• Edward Hamersley, lease on Beaufort River centred on the Martup Hills...15 acres surveyed off to freehold...Dungalaring Spring....pg 14. • Loc 1 - 4 near the Beaufort Bridge - Edward Hamersley. • Bannister townsite and Jogoninning Spring...lease in 1854 on junctions of the Arthur and Beaufort rivers...vicinity of the present Duranilling townsite.		1852 1854	Bird, J. (1986) Round Pool to Woodanilling. A History of the Shire of Woodanilling, Western Australia. Shire of Woodanilling: Albany Advertiser.
Bibliography		• Nelson, L. (1985) The Great Southern Expedition of 1935. Nelson: Albany Advertiser			
		• Bird, J. (1986) Round Pool to Woodanilling. A History of the Shire of Woodanilling, Western Australia. Shire of Woodanilling: Albany Advertiser.