

Pia Wadjari

Layout Plan 1

Background Report

July 2003

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Amendments

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PART 1 – BACKGROUND REPORT

1. Introduction

1.1 The Pia Wadjari Aboriginal Community

The Pia Wadjari Aboriginal Community is located approximately 350 kilometres north-east of Geraldton and is identified on **Figure 1.1**. The closest towns are Yalgoo, situated 135 kilometres to the south and Cue, situated approximately 150 kilometres to the east.

The main community is located within the south-east corner of Reserve 297, which is shown in **Figure 1.2**. A small outstation is located approximately 2 kilometres further south.

1.2 What is a Community Layout Plan?

The past approach to the planning and delivery of services for remote Aboriginal communities has been identified as unsatisfactory in a number of key aspects. This has resulted in problems such as inappropriate location of housing, inefficient provision of services, and outcomes for communities that do not reflect cultural and social needs.

The Department of Indigenous Affairs (DIA) and the Aboriginal and Torres Strait Islander Commission (ATSIC) have for some years recognised the need for an improved approach to planning for Aboriginal communities and have jointly funded programs for the development of physical plans for a number of communities.

The draft policy document *Planning for Aboriginal Communities* released by the Western Australian Planning Commission (WAPC) in October 1997, and prepared in conjunction with ATSIC and DIA, highlighted the problem and established a framework for the planning of permanent Aboriginal communities. This was adopted in August 2000 as *Statement of Planning Policy No 13 – Planning for Aboriginal Communities* under section 5AA of the *Town Planning and Development Act 1928*. This provides a formal planning framework for the preparation and approval of Community Layout Plans (CLP) and is supported by *Guidelines for the Preparation of Community Layout Plans for Western Australian Aboriginal Communities* prepared jointly by ATSIC, DIA and WAPC in November 1999.

ATSIC and DIA continue to jointly fund the preparation of CLP for remote Aboriginal communities across Western Australia to ensure a consistent approach to future planning and development of Aboriginal communities.

The need for the preparation of a CLP for the Pia Wadjari community has been identified, and is being funded, through the ATSIC Remote Area Essential Services Program.

A CLP provides the parameters for land use and development within an Aboriginal community. The purpose of a CLP is to:

- establish a vision for the community and a guide to the future growth and development of the community;
- provide a community focus for, and involvement in, the development process;

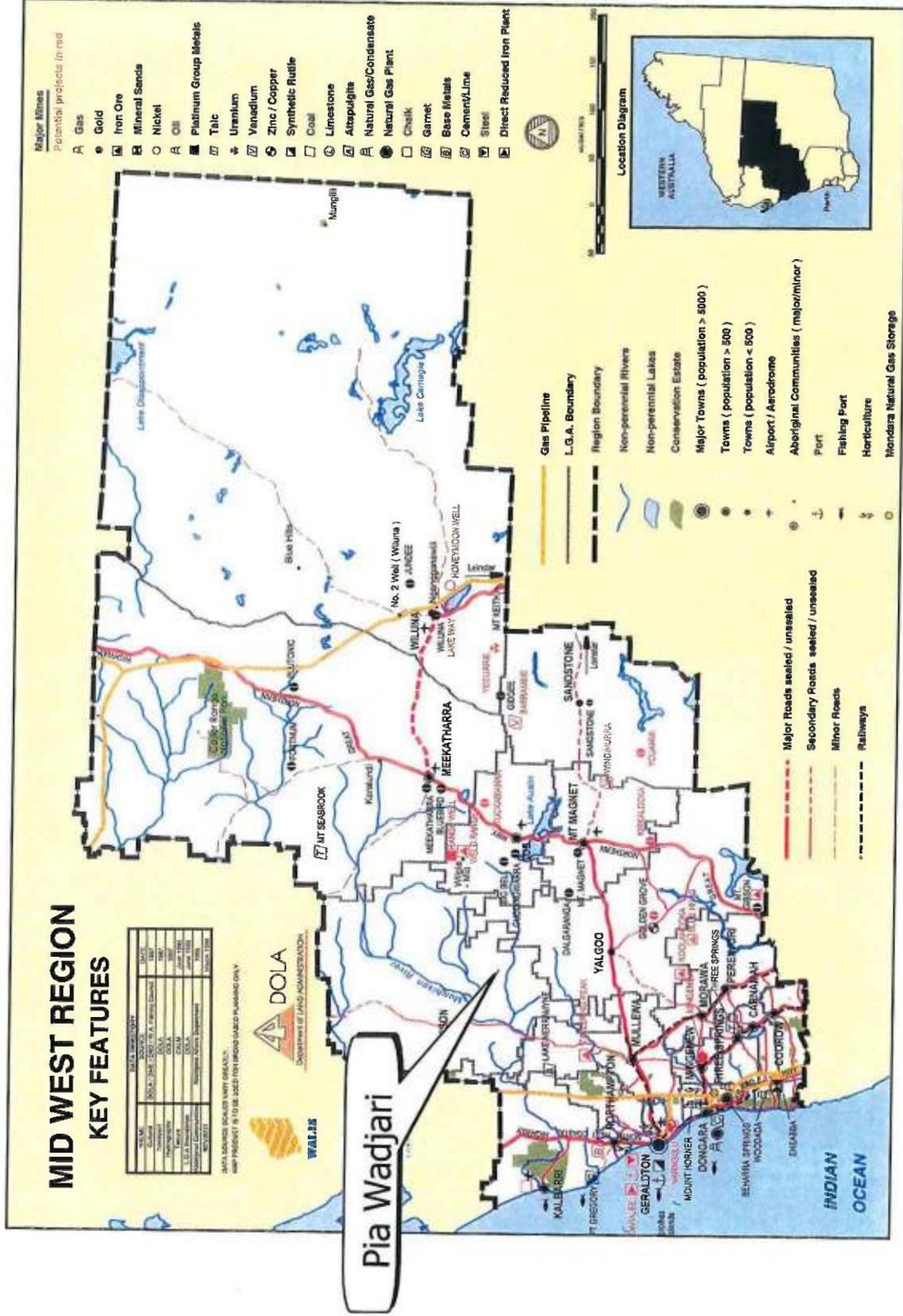


Figure 1.1 - Regional Location Plan

Pia Wadjari Community Layout Plan

- facilitate proper and orderly planning of the community to establish development requirements based on need with social, physical, environmental and economic opportunities and constraints;
- provide a mechanism for a coordinated approach to the provision of services and infrastructure and enable access to existing services and infrastructure information; and
- promote development that maximises health, safety and welfare outcomes for the community

1.3 Why does Pia Wadjari need a CLP?

The Pia Wadjari community needs a CLP prepared for three principal reasons. Firstly, there is a need to update the current CLP that was prepared for the community in August 1996. This CLP does not meet current statutory requirements and has not been assessed or endorsed by the Western Australian Planning Commission. Further, development that has occurred within the community is not consistent with the earlier CLP.

Secondly, there is a need to ensure changed circumstances within the community are reflected and the current needs and aspirations of the community are determined and accommodated within a CLP.

Thirdly, a CLP is required to guide future land use and development decisions within the community and to assist the coordinated provision of essential infrastructure and services by government agencies.

1.4 How has the CLP been prepared?

The preparation of the CLP has adopted a methodology and consultation process based on the suggested approach outlined within the *Guidelines for the Preparation of Community Layout Plans for Western Australian Aboriginal Communities* (ATSIC/AAD, 1999).

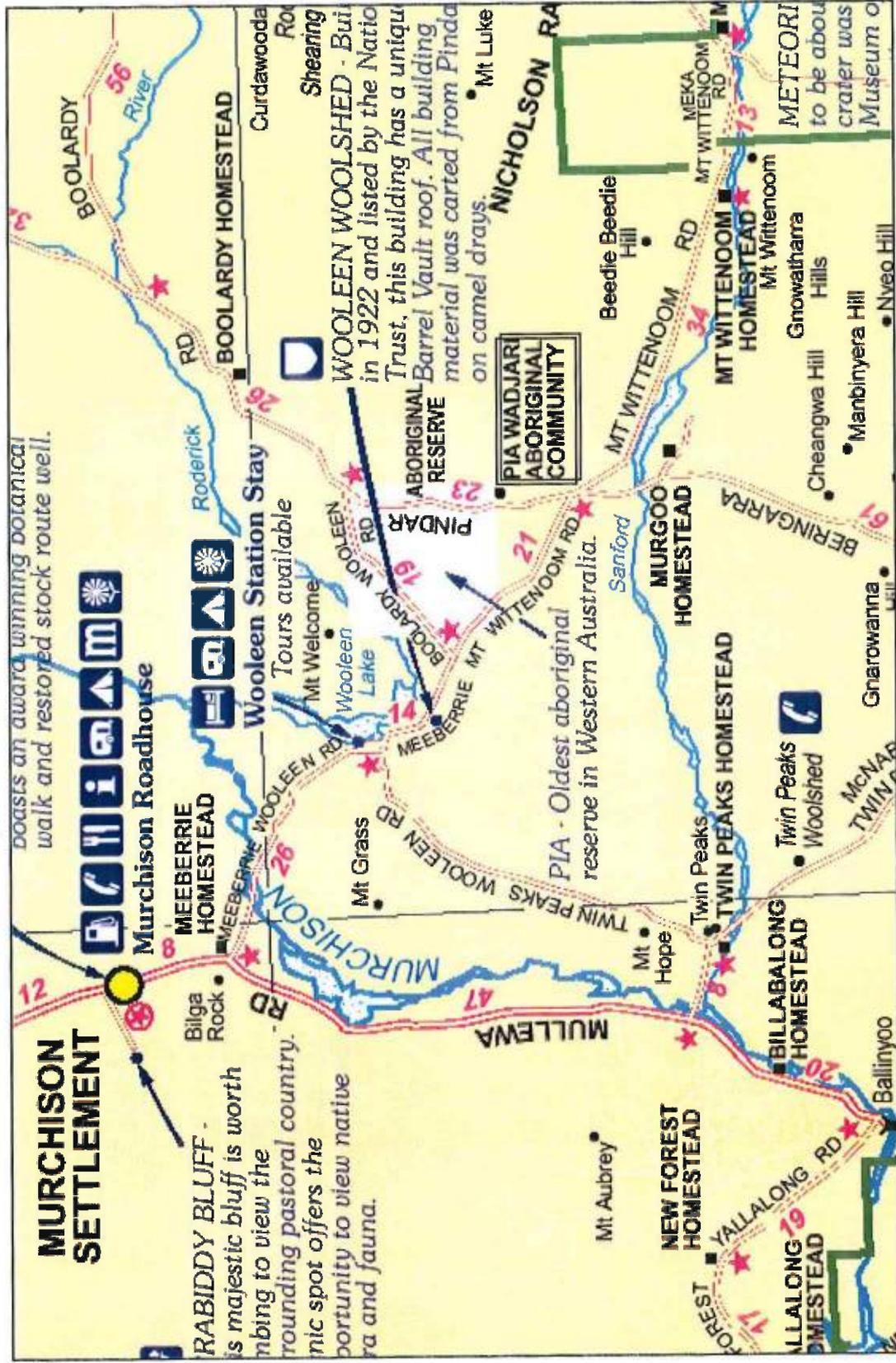
A five stage process has been adopted for the preparation of the CLP. This process is summarised below.

Stage 1 – Stakeholder consultation and background research

- community and stakeholder agencies contacted and written consultation undertaken with stakeholders to scope issues and obtain relevant background information;
- background research on the community and review of existing information undertaken;

Stage 2 – Initial community consultation

- initial planning meeting held with the community and representatives from the Shire of Murchison to explain and confirm the process, scope issues and needs, and discuss planning options for the community;



**Pia Wadjari Community
Layout Plan**

**Figure 1.2 -
District Location**

- detailed field inspection of the community undertaken to assess current conditions and constraints and opportunities for future development;
- meetings held with stakeholders within Geraldton including ATSIC, DIA, Yamatji Regional Council and Department for Planning and Infrastructure;

Stage 3 – Preparation of draft CLP for community and stakeholder comment

- draft CLP prepared and distributed to the community and stakeholders for consideration and comment;
- meeting held with Department for Planning and Infrastructure to discuss comments on draft CLP;

Stage 4 – Consultation with the community on the draft CLP

- second visit to the community conducted to present the draft CLP, discuss comments and agree on required changes for the final CLP

Stage 5 – Preparation of final CLP for endorsement and approval

- outcomes of the community consultation and written comments from stakeholders considered and incorporated into final CLP;
- final CLP prepared for endorsement by the community and the Shire of Murchison and approval by the Western Australian Planning Commission

1.5 What does the CLP contain?

The CLP consists of a report that comprises the technical **background** to the development of the CLP (Part 1); the proposed **plan** of the physical layout of the community (Part 2); and supporting land use and development **provisions** (Part 3). The plan and its supporting provisions together establish the planning and management framework to guide the future staged development of the Pia Wadjari community and the co-ordinated provision of infrastructure and services.

The background report explains the technical basis of the plan and the process used to develop the CLP including consultation undertaken. It includes a profile of the community and existing development and infrastructure provision, and an assessment of the constraints and opportunities to future development.

The CLP plan provides the proposed physical layout of the community, including a housing layout, open space, commercial, industrial and community sites, together with the infrastructure development plan.

The provisions are similar to town planning scheme provisions and establish land use objectives and guidelines, development guidelines, procedures for approval of development and for changes and review of the CLP.

2. Planning Context

The preparation of a CLP needs to consider current state and local government planning studies and administrative frameworks relevant to the region or local area within which the community is situated. It is also important to consider statutory planning controls and regional and local Aboriginal community plans relevant to the community.

2.1 Strategic and Statutory Planning Context

2.1.1 State Planning Strategy

The *State Planning Strategy*¹ provides a strategic framework for future decision making and planning by government agencies, particularly the WAPC. It includes a number of recommended broad strategies and actions that have a bearing on the preparation of Aboriginal community layout plans, regional planning and service provision in the Mid-West region, specifically:

- *Facilitate the preparation and endorsement of community plans for remote Aboriginal communities to enable Aboriginal communities to determine the future of their settlements. (AAD, WAPC, LG);*
- *Develop appropriate planning policies for service provision to remote Aboriginal communities and town reserves. (AAD, WAPC)*
- *Coordinate and provide services to small and remote settlements. (MWDC, WAPC); and*
- *Finalise the Geraldton Region Plan as a matter of priority, and prepare a regional planning strategy for the Mid-West Region. (WAPC)*

The *Geraldton Region Plan* has since been finalised, however a regional planning strategy for the Mid-West region is yet to be prepared. The Shire of Murchison and the Pia Wadjari community, are not within the Geraldton Region and are therefore not subject to the *Geraldton Region Plan*.

2.1.2 Statement of Planning Policy No 13

Statement of Planning Policy No 13 – Planning for Aboriginal Communities (SPP No 13) is a statutory policy prepared by the WAPC under section 5AA of the *Town Planning and Development Act 1928* and gazetted 11 August 2000. SPP No 13 establishes a formal planning framework for the preparation and approval of CLP for permanent Aboriginal communities.

The objectives of the policy are to improve the standard of living and quality of life of people living in Aboriginal communities by:

- providing a framework to ensure that large permanent Aboriginal communities are afforded a high level of service;
- ensuring that these communities and associated land uses are appropriately identified and zoned within town planning schemes;

¹ *State Planning Strategy, Western Australian Planning Commission, 1999.*

- providing a mechanism that will enable both local government and the Western Australian Planning Commission to approve layout plans prepared for Aboriginal communities; and
- providing a framework for negotiation and decision making between Aboriginal communities and local government

SPP No 13 is supported by *Guidelines for the Preparation of Community Layout Plans for Western Australian Aboriginal Communities* prepared jointly by ATSIC, DIA and WAPC. These guidelines outline the content, form and structure of a CLP.

2.1.3 Local Town Planning Scheme

The Pia Wadjari community is located within the Shire of Murchison. There is no local town planning scheme established for the Shire of Murchison. There are therefore no formal statutory planning controls for development within the Shire. The exception is the subdivision of land, which is subject to approval by the WAPC.

2.2 Community Plans and Programs

2.2.1 Regional Plans and Programs

ATSIC Regional Plan

Pia Wadjari is located within the Yamatji ATSIC Region. The administrative boundaries of the Yamatji ATSIC Region are shown on Appendix A, together with its constituent Aboriginal communities. There is no existing ATSIC regional plan for the Yamatji ATSIC Region.

Regional Housing Plan

There is no existing Regional Housing Plan for the Yamatji ATSIC Region.

ATSIC Remote Area Essential Services Program

The ATSIC Remote Area Essential Services Program (RAESP) provides a vital repair and maintenance service for power, water and wastewater systems to selected remote Aboriginal communities across Western Australia. The program is implemented by ATSIC and the Department of Housing and Works under a joint program management arrangement.

The Pia Wadjari community is within the RAESP and recent upgrades to the water supply and power supply systems within the community have been undertaken under the program. The preparation of the Pia Wadjari CLP has also been funded through the RAESP.

2.2.2 Local Community Plans

Community Plan

There is an existing Community Plan for the Pia Wadjari community prepared in 1996 by the Pia Wadjari Aboriginal Corporation. The Community Plan

provides a profile of the community but some of the background information it contains is now outdated.

However, the Community Plan does highlight a number of development opportunities and community needs that remain relevant today and were confirmed by community members during the initial community consultation for CLP preparation.

Community Development Employment Program Plan

The *Community Housing and Infrastructure Needs Survey (1999) (CHINS)* reported that Pia Wadjari had Community Development Employment Program (CDEP) programs in place for the maintenance of public facilities, sewerage and water systems.

Community Housing and Infrastructure Business Plan

The Pia Wadjari Aboriginal Corporation has prepared a Community Housing and Infrastructure Business Plan (Business Plan) for the 3 year period from 1 July 1999 to 30 June 2002. The purpose of the Business Plan is to determine and budget for additional community housing and infrastructure needs within the community to secure ongoing funding from ATSIC through the Community Housing and Infrastructure Program (CHIP). The Business Plan provides useful background information about the Pia Wadjari community and the Pia Wadjari Aboriginal Corporation together with an assessment of current housing and infrastructure needs. These are listed in Section 5.

The community housing and infrastructure needs identified and the future strategic directions highlighted are relevant to the preparation of the CLP and need to be considered.

2.2.3 Local administrative context

The community is governed by the Pia Wadjari Aboriginal Corporation. The corporation is a community-based organisation established under the Commonwealth *Aboriginal Councils and Associations Act 1976*.

The Pia Wadjari Aboriginal Corporation² seeks to:

- Improve the economic and social circumstances and support the social and economic development of its members;
- Develop economic projects and industries and promote education, job training, health services, work and housing for its members;
- Support community cohesion, self management and renewal of traditional culture; and

² Santen, R (1999). *Pia Wadjari Aboriginal Corporation – Community Housing and Infrastructure Business Plan, 1 July 1999 – 30 June 2002*.

- Engage with Aboriginal and other organisations regarding mutually beneficial projects

Arrangements need to be made with the Chairman of the Pia Wadjari Aboriginal Corporation or his representative prior to visiting the community.

2.2.4 Shire of Murchison

The shire covers an extensive geographic area with a small and highly dispersed population, characteristics which make it difficult to cost effectively provide municipal services. The Shire of Murchison boundaries are shown on Appendix A.

The Pia Wadjari community represents approximately 43 percent of the total Shire population. Both the shire and the community appear to enjoy a cooperative relationship. This is evidenced by the Shire representatives attending consultation visits to the community, the Shire having undertaken the grading of the roads within the Pia Wadjari community and by the community members undertaking road upgrading contracts on behalf of the shire near the Murchison Settlement (pers. comm. Shire of Murchison).

The Shire of Murchison does not have a town planning scheme.

3. Cultural and human environment

This section of the report provides a general background description of the community of Pia Wadjari, its cultural context, population makeup and a population projection for planning purposes.



Photo 3.1 View looking north towards main community

3.1 Cultural Context

3.1.1 Land Tenure and Native Title

Reserve 297 is the oldest Aboriginal reserve in Western Australia. Reserve 297 is currently under the control of the Aboriginal Lands Trust and is leased to the Pia Wadjari Aboriginal Corporation until 29 September 2086. The DIA have indicated that there are negotiations underway to transfer the reserve to the Pia Wadjari Aboriginal Corporation as freehold. The location of the main community and the outstation within the reserve is shown in **Figure 3.1**.

A native title claim (*Wajarri Elders Combined*) exists over an extensive area including the Pia Wadjari's lease area. The extent of this registered native title claim is shown in Appendix B.

3.1.2 Language and Cultural Heritage

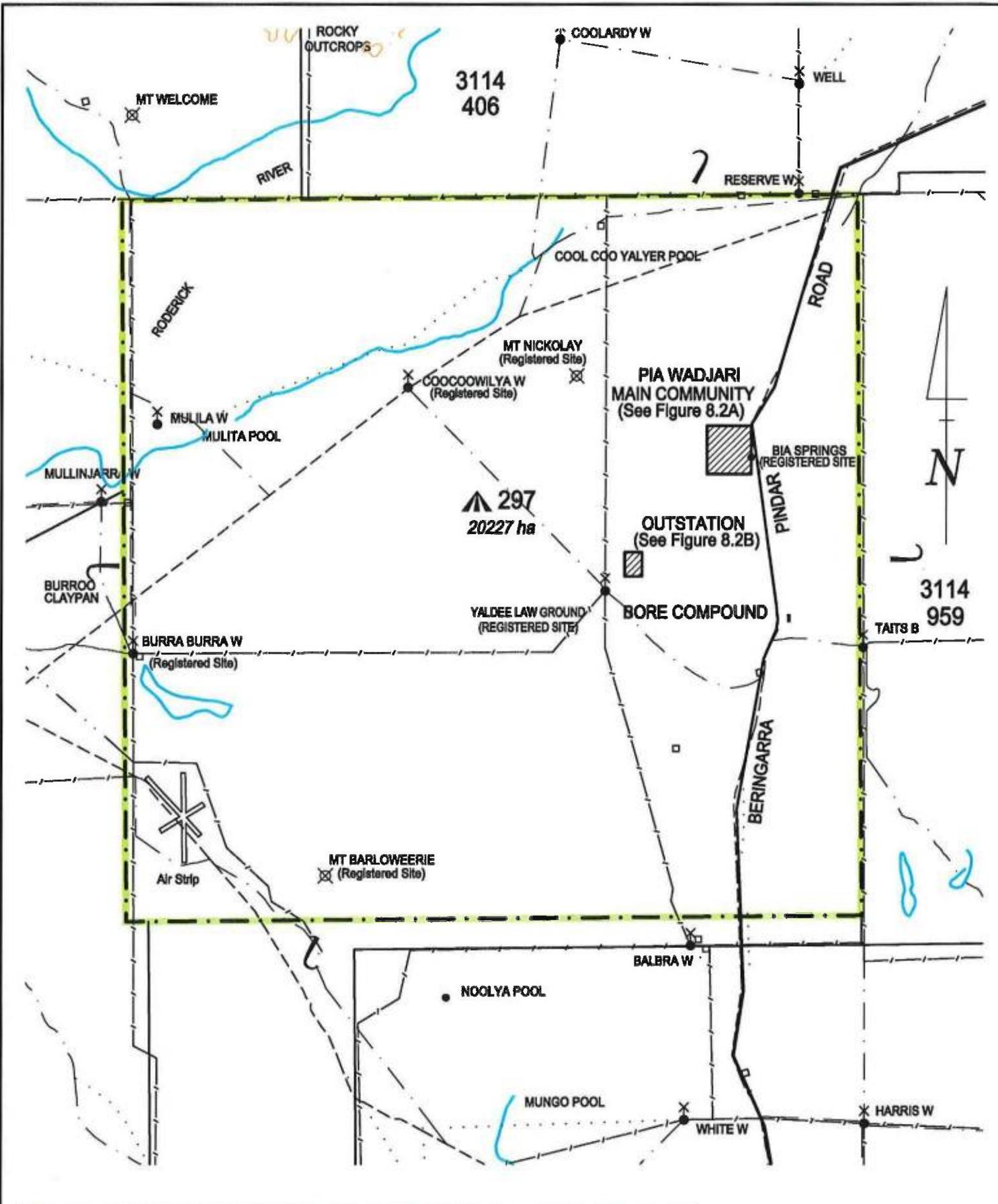
Members of the Wadjari people have been living on a permanent basis on the Pia reserve since the late 1970s. The community formed its incorporated body in 1986 and was granted a 100 year lease on the reserve the same year.

The Wadjari language has been documented and is spoken by older Wadjari people.³ For example, in 1966 a researcher conducted language interviews with Wadjari people based near Pia Wadjari at Boolardy Station⁴. In 1981, it was estimated that there were less than 200 language speakers, who lived in the localities of Geraldton, Mullewa, Yalgoo, Mount Wagner and Meekatharra.⁵

³ Yamatji Language Centre. (1992) *Wajarri Wangga – A dictionary of Wadjari words and language*

⁴ AIATSIS (1966) *Interviews held by AIATSIS concerning Aboriginal language, culture and mores.*

⁵ Douglas, W.H. (1981) "Wajarri" p197-272 in R.M. Dixon and B.J. Blake (eds), *Handbook of Australian Languages*. Vol 2



Legend	
RESERVE 297 BOUNDARY (LEASE BOUNDARY)	UNSEALED ROADS
FENCE LINES	TRACKS

The contemporary objectives of the Pia Wadjari community are to seek to remain as an independent, self-sustaining community retaining Wadjari culture and customs². The Wadjari traditional lands cover an extensive area and includes many cultural artefacts and sites of significance. For example, Walga Rock near Cue is a renowned site of Wadjari rock art and is also included in the Register of National Estate.

The DIA Register of Aboriginal Sites database (**Table 3.1**) indicates that there is one site of significance recorded within the main community. This site is known as Bia Rock Hole and is located in the north-east corner of the site. (**Photo 3.2**)

Nine (9) sites within the Pia Wadjari Reserve are currently recorded as being culturally significant. These sites are placed on the Interim Register while the DIA investigate the details. Refer to **Figure 3.2** for the location of the sites and to Appendix C for the DIA Register of Aboriginal Sites extract.

Table 3.1 Aboriginal Sites of Significance

Location	Site Type
Yaldee Law Ground (Bia Reserve)	Ceremonial, man-made structure
Mt Barloweerie Scatter	Artefact
Coocoowilya Pool	Ceremonial
Burra Burra Well	Ceremonial
Malilja Well	Ceremonial
Mt Barloweerie Area	Mythological, Quarry
Mt Nicolay 1 & 2	Engraving, Artefact
Bia Rock Hole	Unknown
Bia Rock Hole (near)	Engraving

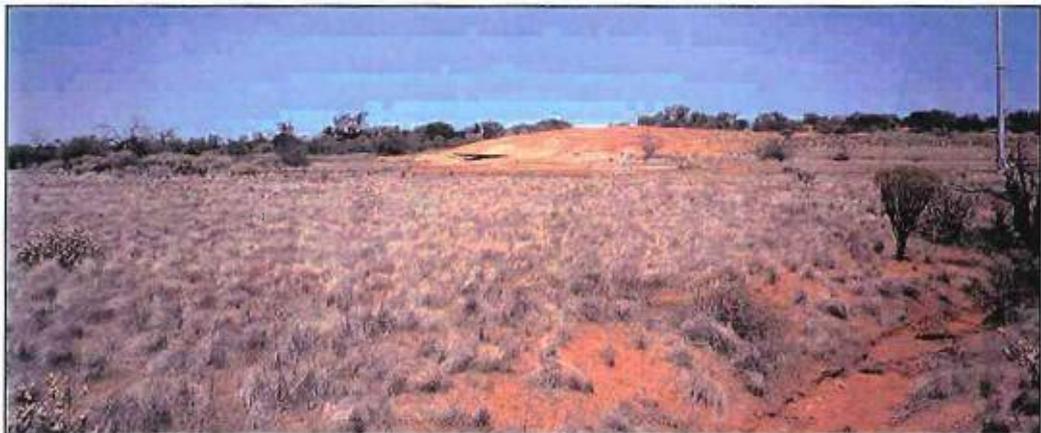


Photo 3.2 View towards Bia Rock Hole

² Santen, R (1999).op cit.

3.2 Economic Context

3.2.1 District economy and employment

Regional level data for 5300 Aboriginal people in 16 Aboriginal communities (including Pia Wadjari) within the Murchison / Gascoyne region indicates that the annual per person median income was \$9856 per annum. This was equivalent to 59 percent of the non-Aboriginal median income in the region in 1996⁶.

The economic and employment base of the Shire of Murchison is dominated by agriculture, specifically the pastoral industry. The pastoral sector employed 57 persons, which represented 73 percent of the Shire's total 1991 labour force. The 1991 Census noted the existence of 21 agricultural establishments covering over 4 million hectares and with a gross value of production of \$5.9 million. Subsequently, agricultural production increased to approximately \$7.3 million in 1995, declining to \$3.9 million in 1999.⁷

No other industry sector is currently a significant employer within the Shire. There was no mining activity in 2000, although there are number of mining tenements within the Shire. There were no new tourism developments under construction or planned as at June 2000, while there was a nil recorded value of Shire building approvals during the period 1994 - 2001.⁸

In the context of an estimated total Shire population of 145 in 2000, there were 62 persons employed in 2000. Employment trends show a total Shire labour force of 105 in 1990, declining to 66 in 1999. This corresponds with the decline in the labour force participation rate of 67.3% in 1991 versus 46.9% in 1996, a figure which is significantly lower than the Mid West regional average of 69.1%.⁹

3.2.2 Local Economy

The community has stockyards located near the Pia Well where seasonal goat mustering activities are carried out. Community members also undertake road upgrading projects for the Shire of Murchison. The general economic and employment base and outlook was described as follows in 1999²:

"There are no opportunities for employment on the community and presently (1999) two people work permanently nearby. However most men find seasonal work on local stations. There are no opportunities for women.

A training and employment program for 12 people under the New Work Opportunities program run by DEET has been applied for in conjunction with the Murchison Shire. This will provide 6 months work on fencing, wind mill repairs, shearing and community activities such as environmental health and administration..."

⁶ Healy, M and Acacio, L *Regional Social Indicators for Aboriginal People in Western Australia*

⁷ Dep't of Employment, Workplace Relations and Small Business in MWDC (2001).

⁸ Dep't of Commerce and Trade (2001) *Regional Trends and Indicators – Shire of Murchison*.

⁹ Dep't of Minerals and Energy in Mid West Development Commission (2001).

² Santen, R (1999).op cit.

"It is possible that Pia Wadjari could join the Geraldton CDEP and have a group of its people working on projects on the community at least on a part time basis initially..."

"Presently there are no community enterprises, though ideas include growing fruit and vegetables at Number 2 Camp, station contracting and tourism development.

The potential of land based enterprises has not been explored to any degree. Emu farming is generally considered too competitive..."

3.3 Community Services

3.3.1 Community Facilities

Improved access to regional centres is regarded by many remote Aboriginal communities as an important factor in their quality of life⁶. This is due to their reliance on external services and facilities to cater for various social, recreational and health needs.

In the case of the Pia Wadjari community, its isolation is underlined by the fact that the nearest town, Yalgoo, is located approximately 165 kilometres away with access via an unsealed road. The smaller Murchison Settlement which is located approximately 68 kilometres away provides for some of the community's basic shopping needs

The community has the following facilities⁶:

Satellite dish; school; community office; Women's centre; and community hall.

Not surprisingly there is a relative absence of a number of services and facilities, a situation that is likely to be related to the small size of the community. For example, the community currently lacks the following potential facilities and services that are often capable of being sustained by larger remote Aboriginal communities:

Radio station; community kitchen; community store; school or community library; oval; swimming pool; playground; and art / cultural centre.

3.3.2 Health Services

Health services are provided to the community via the Aboriginal Medical Service which has personnel based in Geraldton and Mount Magnet to service communities in the Mullewa and Yalgoo districts. A small health clinic provides facilities for general consultations and minor medical procedures.

District level medical facilities are available at the Mullewa District Hospital which is located approximately 200 kilometres by road. The Royal Flying

⁶ Environmental Health Needs Coordinating Committee (1997). Op cit.

Doctor Service has access to the community via an airstrip which is located approximately 33 kilometres away to the south-west.

The Shire of Murchison has recently teamed with a number of other small local governments in the region to appoint an Environmental Health Officer who is based in Meekatharra and who will periodically visit the Pia Wadjari community in the future (pers. comm. Shire of Murchison).

3.3.3 Education Services

Until recently, the former school building, which was shared by the health clinic, provided facilities for School of the Air education to a small number of children. A number of school age children live away from the community in towns such as Mullewa and Geraldton. In a significant development for the community, in June 2002 new purpose-built school facilities, together with teacher accommodation, were constructed at Pia Wadjari.

Women's activities are currently accommodated in the health clinic and Santen² noted that funding had been sought for an additional building for a Women's Centre.

3.3.4 Law Enforcement

Police services are available at Yalgoo.

Santen² reports that Pia Wadjari plays a significant community role by providing a correctional service to host young and adult offenders from the Geraldton region. A number of juveniles and adults serving community based court orders participate in a program in which they reside at Pia Wadjari under the supervision of senior members of the Pia Wadjari community.

3.4 Community Demographics

3.4.1 Mobility

According to the *Community Housing and Infrastructure Business Plan*, the Pia Wadjari community population varies between 40 and 80 residents. Santen states that many of the community's male population are away from the community for extended periods working on pastoral stations in the region. Additionally, residents are also absent from the community for periods while visiting relatives or other parts of their country. Santen suggests that, notwithstanding this general mobility of the community population, tenancy turnover of housing stock is relatively low. The *Community Housing and Infrastructure Needs Survey (1999)* (CHINS)¹³ recorded periodic population increases for cultural reasons which increased the total community population to in excess of 100 persons.

² Santen, R (1999).op cit.

¹³ *Community Housing and Infrastructure Needs Survey (1999)*

3.4.2 Age Profile

There are approximately 62 permanent residents at the community, comprising 39 males and 23 females. The age breakdown is identified in Table 3.2².

Table 3.2 Age profile

Age	Number
0-5	9
6-15	9
16-60	33
Over 60	11
Total	62

This data is relatively consistent with that derived from the 1997 *EHNS*⁶ which recorded a population total of 53 persons and the 1999 CHINS survey which recorded a usual population of 70 persons for the Pia Wadjari community:

The age profile of the community is notable for the low percentage of school age children when compared to the age profile of the Aboriginal population at a national level. A significant number of school age children lived away from the community in towns such as Mullewa and Geraldton², although with the recent school construction, this is expected to change.

3.4.3 Population Trends and Forecast

The 1995 population estimate for the community was 50 persons⁷, indicating an increase of up to 20 persons over the period 1995 – 1999.

Population forecasts must be treated as indicative only, given the absence of published historical data upon which to base traditional 'linear' projections of future population. Nevertheless, Santen records a housing demand as at April 1999 for 9 houses in the community, to accommodate a total of 36 people on the waiting list. This indicates a short-term population increase of about 58 percent, resulting in a total of 98 persons.

The Pia Wadjari community represents a significant proportion (43%) of the total Shire of Murchison estimated resident population of 145. The year 2006 forecast⁸ for the Shire of Murchison is 200 residents; based on an increase of

⁶ Environmental Health Needs Coordinating Committee (1997). *Environmental Health Needs Survey of Aboriginal Communities in Western Australia*.

² Santen, R (1999). *Pia Wadjari Aboriginal Corporation-Community Housing and Infrastructure Business Plan, 1 July 1999-30 June 2002*.

⁷ Aboriginal Affairs Department (1995). *Information Kit for the Yamatji ATSIC Region – Housing and Infrastructure Survey Data. December 1995*.

⁸ Ministry for Planning (2000). *Western Australia Tomorrow – Population Projections for the Statistical Divisions, Planning Regions and Local Government Areas of Western Australia, October 2000*.

2.5 percent per annum, however the historical rate of population growth in the Shire of Murchison since 1986 has only been 1.2 percent. The Department for Planning and Infrastructure's local government area forecasts do not include medium or long term forecasts (year 2011 and beyond) for local government areas with a total population of less than 2000 persons.

From the available data for the short period between 1995 and 1999, it appears that Pia Wadjari's population grew at approximately 10 percent per annum. It is unlikely that this rapid growth rate will be sustained, and a more conservative long term growth rate of, say, 2.5 percent per annum may be assumed for current purposes. Using the CHINS 1999 population figure of 70 persons as a base, on this basis the year 2024 community population would be 114 people.

The *EHNS* survey determined that the majority (67%) of the total number of Aboriginal residents of the state's remote communities lived in communities of 100 persons or larger. In the absence of any firm population trend data for Pia Wadjari, it is considered reasonable to plan based upon the assumption that favourable conditions will enable its future population to exceed 100 persons in the future.

4. Existing environment and land use-

This section provides a description of the physical and biological environment, detailing the range of land uses and community infrastructure that constitute the Pia Wadjari community and its surroundings.

4.1 Physical Environment

4.1.1 Climate

The following data has been collected from Murchison Settlement, approximately 50 kilometres north-west of the community, although it should be noted that this data has only been recorded for the past 14 years. The area has an arid climate with a mean annual rainfall of 190-240mm. Prevailing winds may be assumed from Bureau of Metrology data for Meekatharra. The prevailing higher velocity winds are the summer morning easterlies.

Figure 4.1 Mean Temperature

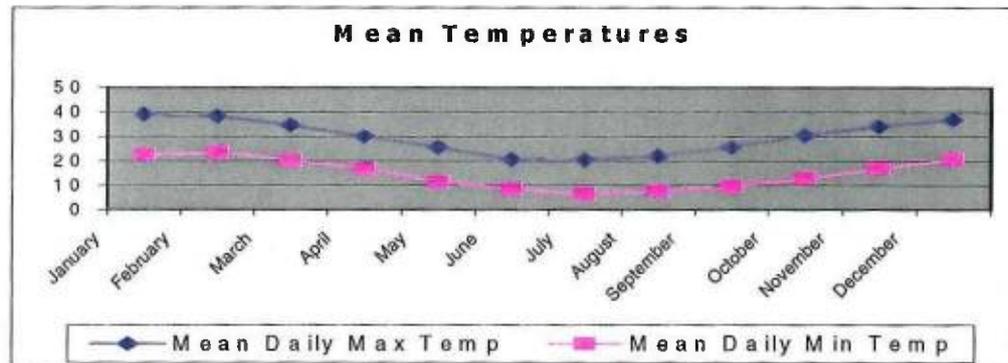
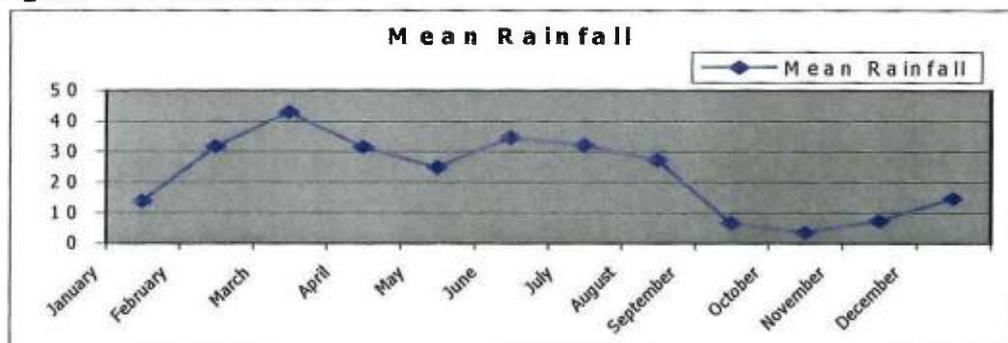


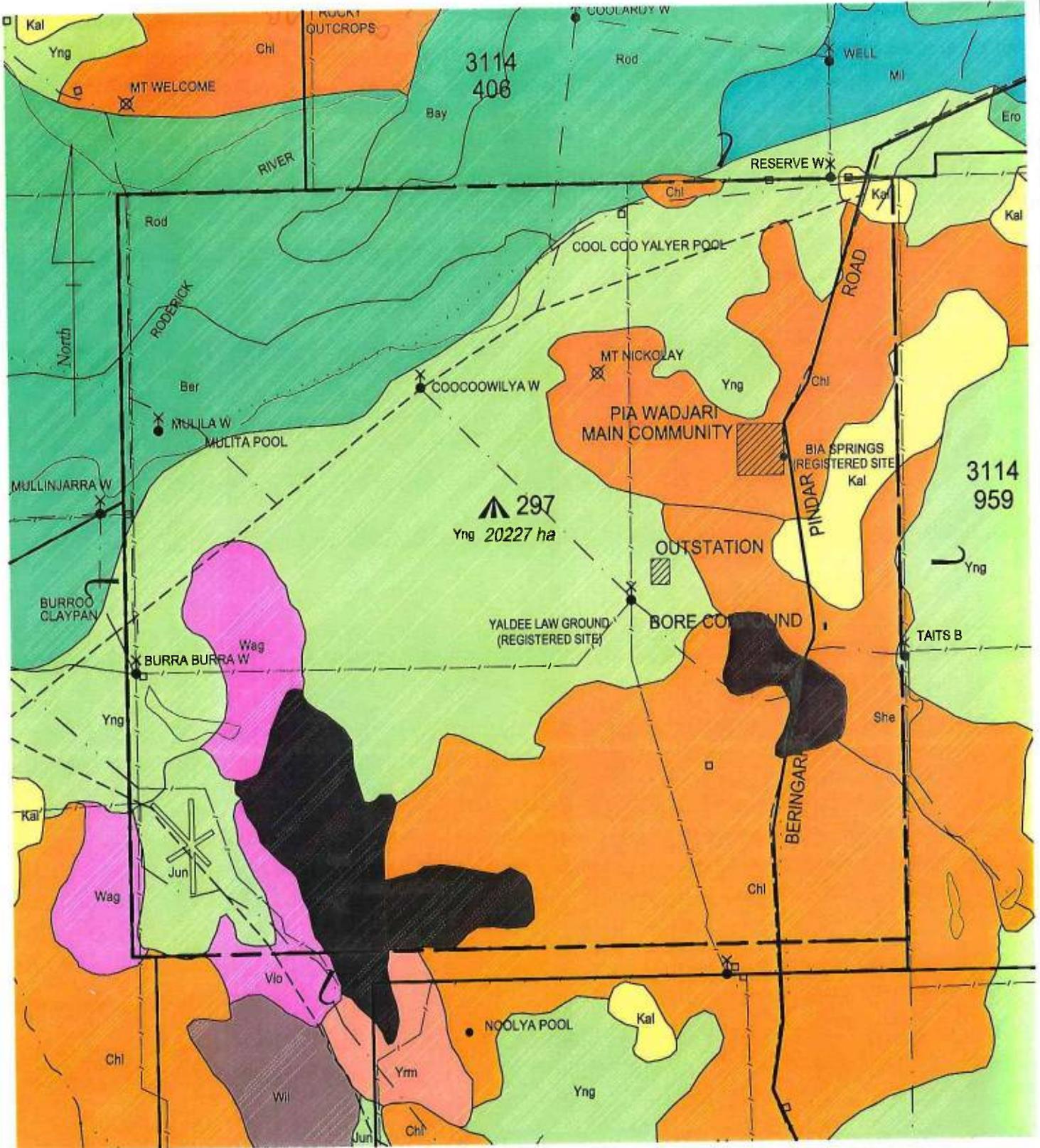
Figure 4.2 Mean Rainfall



4.1.2 Landform

*Technical Bulletin No. 84*⁹ (Department of Agriculture, 1994) classifies the Pia Wadjari Reserve within 11 land systems which are shown on **Figure 4.3**. These land systems have individual landform, soil, and vegetation characteristics. The dominant land systems within the Pia Community itself are predominantly the Challenge and Yanganoo land systems. The Challenge land system is described as having gently sloping gritty and sandy-surfaced plains

⁹ *Technical Bulletin No.84 An Inventory and Condition Survey of the Murchison River Catchment and Surrounds, Western Australia, Department of Agriculture, Western Australia, 1994.*



Legend		
- Roderick	- Yanganoo	- Waguin
- Beringarra	- Jundee	- Violet
- Bayou	- Challenge	- Gabanintha
- Ero	- Sherwood	- Norie
- Yarrameedie	- Mileura	- Kalli

Source: Technical Bulletin No. 84
Dept. of Agriculture 1994

Land Systems Map

Connell Wagner

Figure: 4.3

Designed: S. Ryan Date: 24.05.01
Drawn: I. Neimanis Plan Ref: C04801LS01

SCALE 1:100 000



with granite outcrops and minor breakaways. The Yanganoo land system has almost flat hardpan wash plains.⁹

4.1.3 Soils

The main soil type of the area is the red-brown siliceous hardpan which is characteristic of the arid climate with a mean annual rainfall of 190-240mm. The hardpan plains of the Yanganoo land system are soils of red hardpan clay loams over red-brown hardpan (occasionally granite), usually 20-50 cm deep.

The soils of the Challenge land system are usually granitic siliceous sands to 70 cm over decomposing granite, occasionally with thin hardpan and quartz fragments throughout the profile. The Challenge land system is not normally susceptible to accelerated erosion except on alluvial footslopes and drainage floors⁹.

4.1.4 Vegetation

The Challenge land system supports mulga and shrublands. The vegetation on the grit-surfaced plains is scattered to very scattered and mixed or tall shrublands. Dominant vegetation types are predominantly Mulga Shrublands of moderate productivity, with minor Bluebush Shrublands with good drought reserves where not overgrazed.

The Yanganoo land system has extensive hardpan Mulga Shrubland and minor Wanderrrie Bank Grassy Shrubland of moderate productivity. In fair to good conditions it is reported to support a well-mixed suite of perennial shrubs and herbs. In poor conditions, perennials (occurring as understorey and low shrub vegetation) are greatly reduced or virtually eliminated as a result of overgrazing⁹. (Refer to **Figure 4.4**)

4.1.5 Surface water

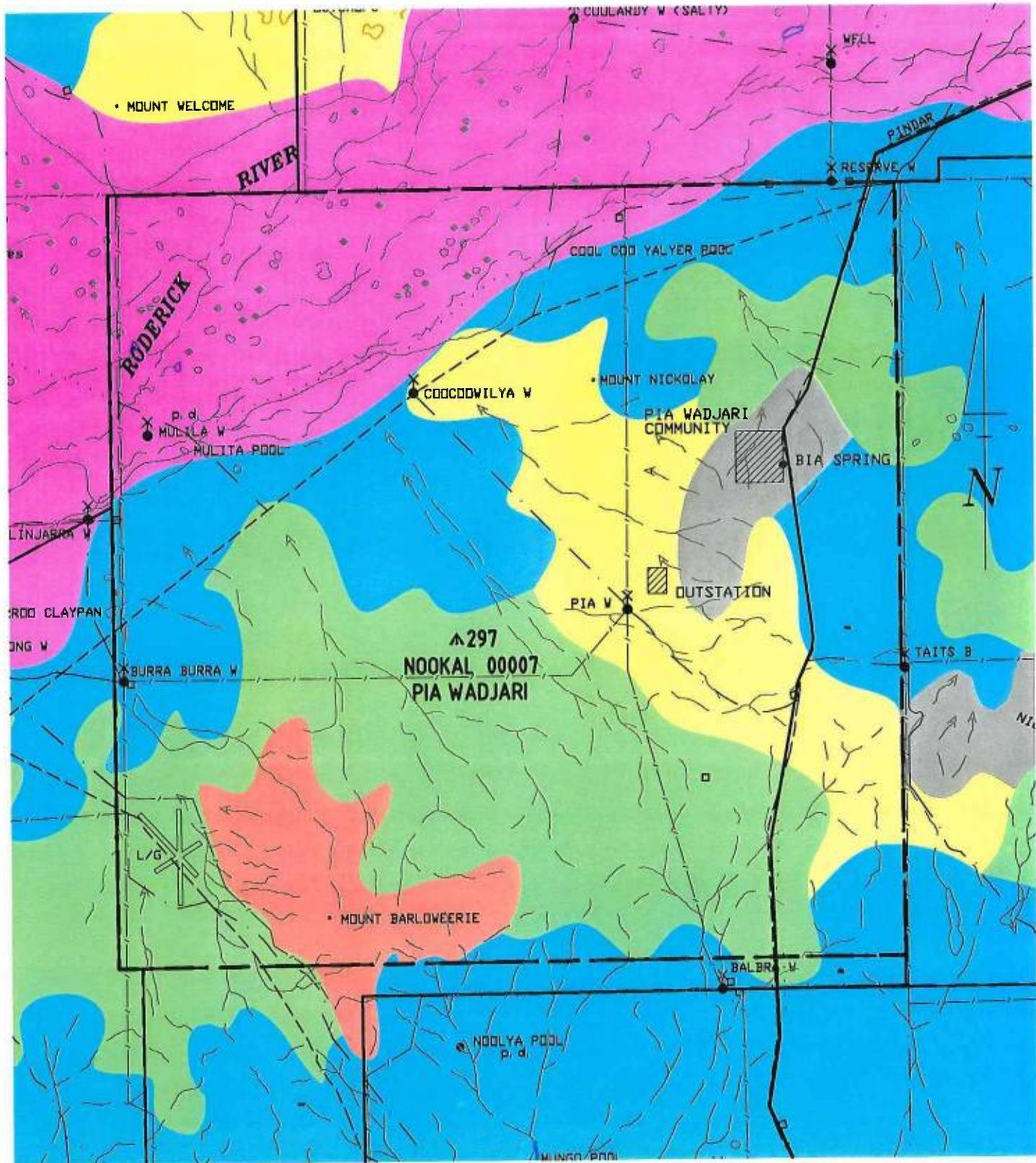
The Roderick River runs through the north-west portion of the Pia Reserve, however there are no major water courses that traverse the actual community. During rain periods, a small creek to the north of the community becomes active. A seasonal watercourse carries stormwater from Bia rock along the eastern perimeter of the main community.

This and other seasonal watercourses on the Pia reserve are illustrated on **Figure 3.2**. These traverse the reserve in a general north-westerly direction, feeding the Roderick River which is a tributary of the Murchison River.

4.1.6 Groundwater

Pia Wadjari is underlain by Archaean granitoid rocks and low hills of granite which are located to the east of the community and extend in a line south. Sub-cropping granite underlay the eastern portion of the immediate

⁹ Technical Bulletin No.84 *An Inventory and Condition Survey of the Murchison River Catchment and Surrounds, Western Australia*, Department of Agriculture, Western Australia, 1994.



Legend		
Mulga and Wattles with Saltbush/bluebush	Mulga Shrubland	
Mulgatree in Groves or Patches	Sparse Wattle Shrubland	
Mulga Low Woodland	Low Open Scrub	

Source: Beard J. S. 1976

Vegetation Map

Connell Wagner

Figure: 4.4

Designed: S. Ryan Date: 22.05.01
 Drawn: I. Nelmanis Plan Ref: C04801VP01



groundwater catchment to the Pia Well area adjacent to the drinking water borefield. Alluvial sands, silts and eluvial clays are indicated for the immediate proximity of the Pia Well borefield¹⁰.

It was estimated that the man-made sources of groundwater contamination (waste dumps, diesel tanks etc.) present some long-term risk of contamination to the borefield near Pia Well, via subsurface migration. Refer to Appendix D for the recommendations on groundwater source protection.

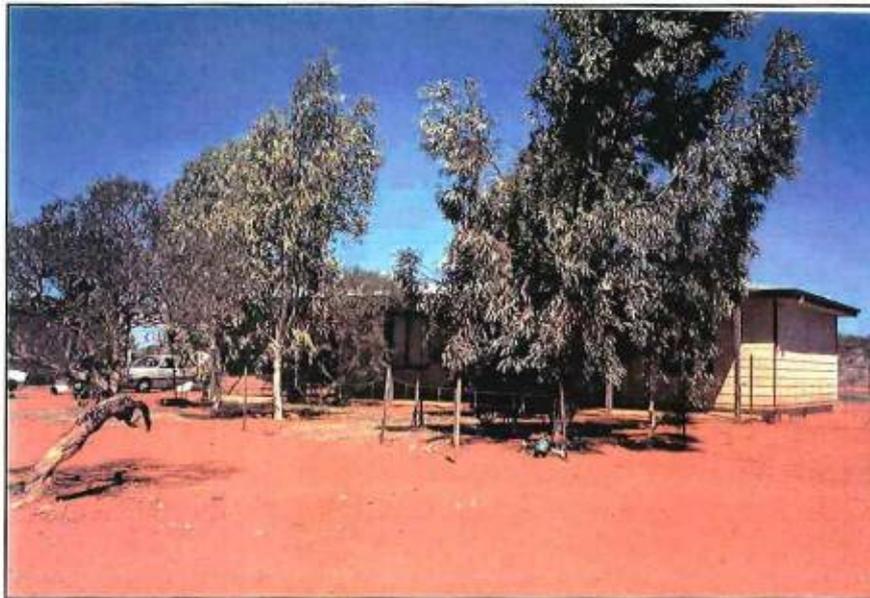


Photo 4.1 Typical landscaping within house sites

4.2 Form and Extent of Development

Reserve 297 comprises an area of 20 234 hectares, however, the main community comprises an area of approximately 10 hectares. (Refer **Figure 4.5**) The outstation comprises an area of approximately 1 hectare.

4.2.1 Residential

The main community contains 10 permanent residential houses, capable of accommodating 60 residents. There are two small two-room 'shacks' located in the main community, with another two being located at the outstation. All permanent houses are occupied, however, the 'shacks' are not used as they do not provide acceptable accommodation. The 1999 CHINS survey however noted that two of the shacks classified as temporary accommodation were occupied at the time. The outstation contains three houses.

Photographs of temporary and permanent housing within the main community and the outstation are included as Appendix E. Most of the properties are in reasonable condition, however, some of the older properties require minor

¹⁰ Coffey Geosciences Pty Ltd (2001). *Pia Wadjari Groundwater Source Protection. Unpublished report prepared for Connell Wagner.*

maintenance¹⁰. The *EHNS* recorded the presence of 14 separate houses in the main community and the outstation, all of which were deemed to be in an "adequate" condition for habitation⁶.

There is no existing hostel, or single quarters, within the community. A need for this type of accommodation, particularly for younger people, has been recognised by the community.

4.2.2 Commercial and community purposes

There is no shop at the community, with residents needing to travel to surrounding townsites such as Murchison Settlement to purchase food and other items. The community considers that the development of a small shop is required to cater for community needs.

The *EHNS* recorded a total of 53 food premises (including grocery outlets) among the 259 remote Aboriginal communities surveyed. It is considered that the presence of a food store is likely to be determined by factors such as the size of the community and its distance from the nearest townsite. On this basis, it can be assumed that the establishment of a foodstore may be required and that the CLP should make future provision for such a facility.

The existing administration building, the new school facility and the community health centre are considered community purpose sites. The community have indicated that these areas are adequate for the current needs of the community.



Photo 4.2 Administration building

¹⁰ R Santen (1999) *Op cit*

⁶ Environmental Health Needs Coordinating Committee (1997). *Op cit*.

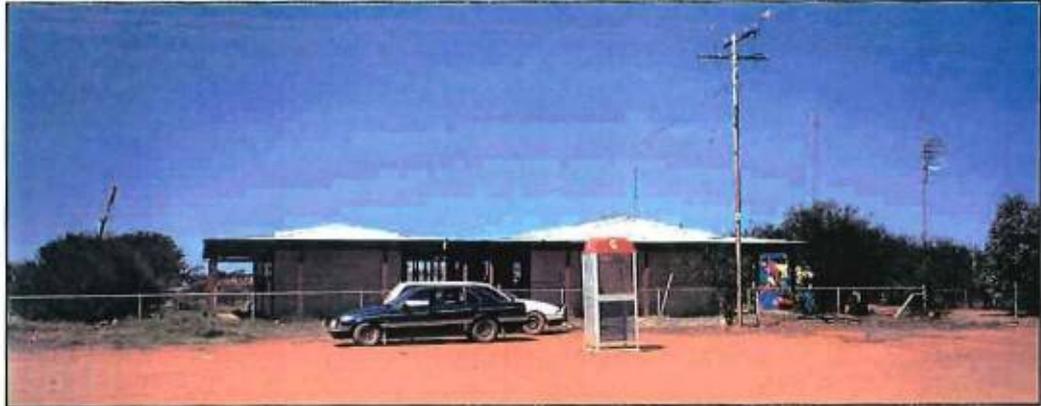


Photo 4.3 Health clinic

4.2.3 Industrial

There is one existing workshop within the community, used for minor repairs of equipment and for storage. The workshop is a galvanised shed and is located in the centre of the community in an area frequently used for recreation and as open space. As such, the community consider the workshop should be converted to cater for recreation activities to complement surrounding land uses. As a result, there is a need to construct a new workshop in a more suitable location.



Photo 4.4 Workshop

4.2.4 Recreation and Open Space

Development within the community is centred upon a large area of open space. The open space area is currently being landscaped. The community has also indicated a desire for the development of a football oval to the immediate east of the community adjacent to the administration building.

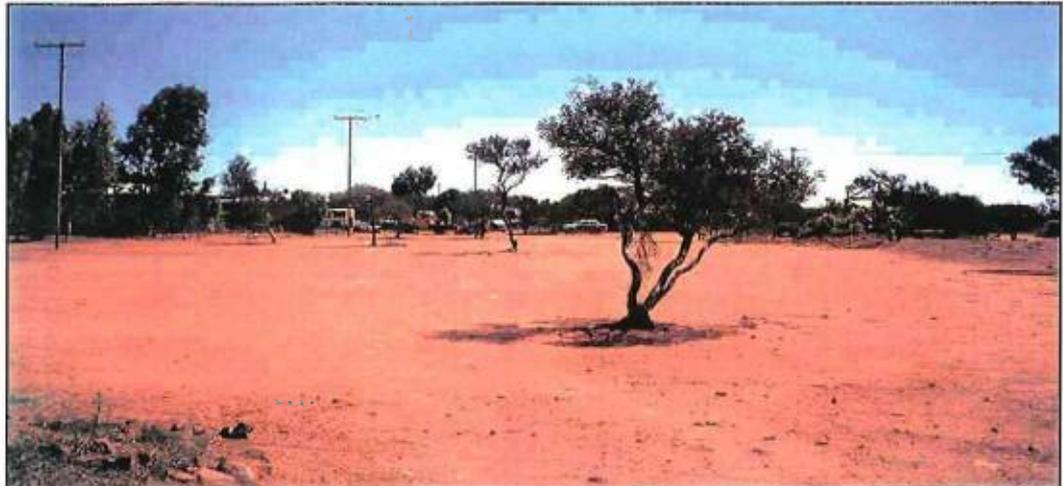


Photo 4.5 View over central open space area

4.2.5 Cultural Purpose Sites

The only recognised cultural purpose site within the community is the Bia Rock Hole, located to the south-east of the community. This is a registered Aboriginal site. The Yaldee Law Ground is a registered site to the west of the water supply borefield.

4.2.6 Camping Areas

A camping site is located in the south-west corner of the main community. This area comprises a cleared area and ablution facilities, however it is not frequently used at present.

4.3 Existing Road Network and Pedestrian Movement

The unsealed access roads that traverse Reserve No 297 and link the Pia Wadjari community and the outstation to the nearest townsites of Murchison Settlement, Yalgoo and Cue are shown on **Figure 1.2**.

There are a number of unsealed roads and informal tracks within the community. Formal roads and parking areas are not well defined throughout most of the community. Vehicle access is currently possible in a somewhat random manner across the central open space area, creating the potential for conflict between vehicles and pedestrians and possibly restricting the safe use of this central recreation area. The community wishes to exclude vehicular traffic from this area.

5. Community needs and consultation

The identification of community needs is derived from:

- Community Housing and Infrastructure Business Plan¹¹;
- Environmental Health Needs Survey, 1997;
- Community Housing and Infrastructure Needs Survey (1999); and
- Community consultation conducted in March 2001 and June 2002.

5.1 Community Housing and Infrastructure Business Plan

The Business Plan identifies the need for minor repairs and maintenance to nine existing houses and for the construction of nine new three-bedroom houses to accommodate people on the current housing waiting list. It also identifies the need for upgraded stormwater drainage and sewerage disposal systems to address flooding and potential health problems and the need for dust control through sealing of internal roads and landscaping.

The Business Plan also highlights a number of future strategic directions for the further development of the community. These include:

establish a viable community enterprise on its lands to provide employment for community members and a more stable population base.
establish a plant nursery to service the landscaping program, with potential to become a community enterprise providing landscaping services to nearby stations and mines.
establish a market garden to supply the community with fresh fruit and vegetables, given the distance from towns, and associated upgrade of the cool storage facility.
supplement and eventually replace the present diesel fuel power supply system with alternative solar or wind generated power systems.
need for hostel accommodation for those serving court orders within the community as an alternative to custodial sentences, and for other short-term visitors to the community.
establish a recreation centre through conversion of the existing workshop.
develop a sports oval as planned for in the 1996 CLP.
establish a tourist caravan park near the outstation area.

5.2 Community Consultation

During the initial community consultation visit held during March 2001, the community raised several specific needs and requirements of the CLP. These include (not in order of importance) provision for:

recreation facilities, including a playground, BMX track, oval and a swimming pool.
a separate killing pen (for sheep and kangaroos).
hostel/single quarters accommodation for younger members of the community.
a market garden to supply the community with fresh produce and to develop as a community industry over time.
a nursery for landscaping stock.
address stormwater and septic tank effluent disposal problems.
conversion of the existing workshop to a recreation centre.
development of a new workshop.
restricting vehicle access to the central open space area.
need for a food store.

¹¹ R. Santen (1999) Op cit

A subsequent community consultation visit to discuss the draft CLP resulted in a number of changes, including: confirmation of culturally significant areas; need for wider house lot frontages; deletion of a proposed caravan park site from the outstation area; and revised locations of visitors' and contractors' accommodation.

5.3 EHNS Survey (1997)

The above specific needs may also be compared to earlier data from the *EHNS*⁶. The report provides a discussion of its findings at a regional level and the Pia Wadjari community is part of the Yamatji ATSIC region. At the time of the survey, this region comprised 460 people living in six (6) remote communities. The needs listed by each of these communities were presented in an aggregated form in the EHNS report, as shown in **Table 5.1**.

Table 5.1 Yamatji region - community needs

Identified Need	Number of communities (n = 6)
Access to and from communities	6
Landcare	5
Municipal services	5
Meeting areas	5
Recreational	4
Health services	4
Store	3
Training	2
Housing	2

The *EHNS*⁶ focused on the physical infrastructure and environmental conditions that affect the relative levels of environmental health of remote Aboriginal communities throughout Western Australia. The extract of the findings of the *EHNS*⁶ for the Yamatji region communities is included as Appendix F.

The survey developed a range of environmental health indicators that highlighted those communities with priority needs for improved community infrastructure. The relevant indicators used were: housing; water supply; power supply; solid waste disposal; sanitation / effluent disposal; and dust control.

The survey included a summary listing of those communities across the state which were determined to be in the top 10 – 15 percentile group for each of the above categories. This represents those communities with the highest relative need for deficiencies to be addressed in these particular areas. Pia Wadjari was not included in this state level priority list. Nevertheless, the survey did identify a number of environmental health deficiencies specific to Pia Wadjari, which are discussed below. Section 6 discusses community needs for improvements to service infrastructure.

⁶ *Environmental Health Needs Coordinating Committee (1997). Environmental Health Needs Survey of Aboriginal Communities in Western Australia.*

Housing

The *EHNS* classified all 14 of Pia Wadjari's dwellings as "adequate", although it is evident that maintenance is required to a number of dwellings to enhance their comfort and utility for occupants. Of these dwellings, 21 percent were identified as requiring maintenance to three or more basic facilities (per dwelling).

Dwelling density is approximately 4.5 persons per "adequate" dwelling, which is consistent with other communities in the Yamatji region and less than the state average of 7.1 persons per adequate dwelling⁷. Additional housing solely for the purpose of reducing dwelling densities appears unnecessary.

Dust control

Excessive dust levels can exacerbate or cause respiratory illness and eye disease⁶, as well as cause a nuisance or general reduction of quality of life in communities. The *EHNS* noted that approximately half of the remote Aboriginal communities in the Yamatji region and throughout the state experienced "high" or "excessive" levels of dust. It is not known whether the Pia Wadjari community was rated within this category, however, dust suppression measures are important where unsealed roads and potentially dusty environmental conditions exist.

5.4 CHINS Survey (1999)

The CHINS Survey recorded population and housing data and a range of community infrastructure and services for Pia Wadjari and other Aboriginal Communities throughout the state. Data for Pia Wadjari (refer Appendix H) is consistent with other survey and consultation findings and indicates the following:

- Need for improved water treatment (which has since been addressed);
- Need for additional water capacity to deal with occasional population increases (which has since been addressed); and
- Need for frequent maintenance of septic tanks and leach drains.

The reported problems with stormwater ponding / minor flooding within the community were however not mentioned by the community in the CHINS survey.

5.5 Stakeholder agency consultation

Representatives of the following stakeholder agencies were consulted during the development of the CLP, with copies of the draft CLP and supporting report being provided:

- Department for Planning and Infrastructure;
- Shire of Murchison;
- Department of Housing and Works (Aboriginal Housing Infrastructure Unit);
- Department of Indigenous Affairs – Geraldton Regional office;
- Aboriginal and Torres Strait Islander Commission (ATSIC) – Yamatji Regional Council.

⁶ *Environmental Health Needs Coordinating Committee (1997). Environmental Health Needs Survey of Aboriginal Communities in Western Australia.*

6. Infrastructure Development Plan

A plan of existing service infrastructure is included as **Figure 6.1** (overleaf), and photographs of existing infrastructure services are included as Appendix G. The following is a description and appraisal of each existing infrastructure service.

6.1 Water Supply

Water is supplied via two bores located approximately 3 kilometres to the south of the main community and associated storage tanks located at the southern edge of the main community. The bores are operated by solar power with diesel generator backup. The solar tracking systems for the bores are considered to be unreliable and the solar arrays may be upgraded in the future.

In 1997 the *EHNS*⁶ recorded the absence of water quality treatment at Pia Wadjari. In the past the community did not have a satisfactory water treatment system, with chlorine tablet disinfection being used. It was also reported in the past that the storage tanks have not had sufficient capacity to continuously meet the water usage needs of the community.

Consequently the water supply for the community was recently upgraded under the RAESP to improve the reliability, capacity and quality of the system. Recent upgrading works have provided new storage tanks, a new standby generator at the bore site and the installation of a water disinfection system consisting of ultraviolet treatment and filtering for the potable supply.

Revised piping has allowed untreated water from the old supply tanks to be used for irrigation purposes. In addition to the mains, pumps, bores and tanks, there are also a number of pressure pumps for outdoor irrigation located within the community. There are a number of windmills located near the community. While not providing potable water for community consumption, these water sources may be suitable for other activities such as animal watering or crop irrigation.

6.2 Solid Waste Disposal

A solid waste disposal site is located midway between the main community and the outstation. At present, waste is accumulated in an above ground pile. The site is unfenced and inadequately managed, with no covering of refuse, resulting in some wind-borne refuse away from the solid waste disposal site.

Adequate rubbish collection and waste disposal are essential to minimise potential breeding grounds for vermin. A trench or pit is required, together with secure fencing to prevent access by children and animals, to establish a properly designed site⁶.

⁶ Environmental Health Needs Coordinating Committee (1997). Op cit

⁶ *ibid*



Photo 6.1 Solid waste disposal site

The Pia Wadjari site is among the 21 percent of remote Aboriginal communities in the state currently operating "inappropriate" solid waste disposal sites. Problems with the disposal of disused vehicles and other machinery were also identified as being common to a number of Yamatji communities, including Pia Wadjari. The location of a car dump at Pia Wadjari is noted on **Figure 8.1.B**, and it is recommended that it be relocated as it represents a potential low level risk to the groundwater supply¹⁰.

6.3 Telecommunications

There is an existing Telstra compound located in the south-east corner of the main community. Phone lines are available at the school and office, and at houses 1, 2, 3, 4, 7 and 15. One pay phone is available in the community.

Telecommunications facilities were recently upgraded and may need system improvements and upgraded capacity as the population increases in the future. GWN, WIN and ABC television services are available, however, only two stations can be received at the one time. In addition, the capacity of the system is limited and as a result television is not available in every house.

6.4 Aerodrome

The Barloweerie Aerodrome is located approximately 33 kilometres south-west of the community and is located on Reserve 297 near Mount Barloweerie. It is recognised by the Royal Flying Doctor Service (RFDS) as suitable only for day time use, as it does not currently have lighting. It is comprised of two gravel strips 1.1 kilometres and 1.3 kilometres in length respectively. The community does not use the strip for regular access.¹²

It is approximately 30 minutes drive from the main community, whereas ideally an airstrip should be located within 10 kilometres of the community it is designed to serve. Community members did not raise the need for a new airstrip during consultation, however, consideration could be given to the

¹⁰ Coffey Geosciences Pty Ltd (2001). *Pia Wadjari Groundwater Source Protection. Unpublished report prepared for Connell Wagner.*

¹² *Community Housing and Infrastructure Needs Survey (1999)*

development of a new airstrip closer to the community, which would be desirable for faster access in the event of a medical emergency.

6.5 Stormwater Drainage

Surface runoff drains from south-east to north-west across the community. While no buildings are flooded, the community reported minor flooding which affects the safe operation of the septic/leach drain systems. Flooding does not appear to be a major or recurring problem affecting the community's buildings, based on the fact that there were reported to be no instances of flooding in the CHINS (1999) survey.

Some erosion and scarring of the land is also caused by stormwater flows. A small surface diversion berm has been constructed to the east of the community to divert stormwater away from the administration building, to naturally disperse to the north of the community.



Photo 6.2 Drainage channel south-east of the administration building

6.6 Effluent disposal system

The effluent disposal system incorporates a number of septic tanks and leach drains. Several of the systems require frequent maintenance and problems have been reported with leach drains. The *EHNS* noted problems with leach drain flooding and sewage sludge disposal problems at Pia Wadjari and two other Yamatji communities. The need for effluent disposal systems to be rectified was also confirmed by the community consultation.

6.7 Power Supply

Power is supplied to the main community via a solar / wind / diesel hybrid system located approximately 100 metres south of the main community. The system incorporates 25 kilowatt and 40 kilowatt diesel generators, solar panels and a 10 kilowatt wind turbine. The diesel generators are synchronised and auto-controlled and the system currently has a diversified peak capacity of 40 kilowatts. Two diesel power generators have been installed in an acoustically insulated container to service the outstation.

Within the main community, power is currently supplied to the existing health clinic and office, along with houses 1-10 and 13-15. Houses 11-12 and the workshop are currently without power. In 1997 the *EHNS*⁶ reported that power supply interruptions occurred at Pia Wadjari as a result of a lack of fuel.

6.8 Road Network and Pedestrian Movement

Access routes to the main community and the outstation from the surrounding region are illustrated on **Figure 1.2**. Vehicle access to and within the main community and outstation is via unsealed tracks / roads approximately three to five metres in width. There are no separate pedestrian facilities within the community and the installation of separate paths appears unwarranted.

The previous CLP plan did not accurately reflect the current internal and external road alignments, and the community has proposed the realignment of a number of roads and closing of several informal tracks. These changes need to be incorporated into the CLP, together with associated traffic management measures to rationalise vehicular and pedestrian movements.

6.9 Infrastructure – Future Upgrading Requirements

Table 6.1 - Service Infrastructure – Planning Constraints, Opportunities and Proposals

Constraints and Opportunities	Upgrading Proposals
Power Supply	
<p>Upgrading of power supply capacity for the main community will be required to service additional development.</p> <p>Existing Houses 11-12 and the existing workshop (proposed recreation centre) also require power to be connected.</p>	<p>Provide adequate land area for future additional power supply infrastructure.</p> <p>The future upgrading of power supply infrastructure should aim to minimise the potential for noise nuisance to residential areas.</p>
Water Supply	
<p>The existing water supply system is designed to service the current community population.</p> <p>Upgrading of water supply capacity will be required in the future commensurate with population increases.</p> <p>The Coffey report¹³ has identified water source protection strategies for the Pia Wadjari main community and outstation areas.</p>	<p>Land use restrictions to protect a future safe potable water supply for the community need to be reflected in the CLP.</p> <p>Allocate water storage facilities and trunk supply alignments within public utility or road reserves.</p> <p>Relocate the existing car dump and landfill sites to a new location further removed from the water supply borefield.</p>

⁶ Environmental Health Needs Coordinating Committee (1997). Op cit

¹³ Coffey Geosciences Pty Ltd (2001) Op cit

Constraints and Opportunities	Upgrading Proposals
Solid Waste Disposal	
<p>The CLP will need to identify an indicative site location; a larger capacity and more "permanent" site, combined with site fencing, should assist ongoing site management.</p> <p>Environmental engineering design and implementation issues such as increased landfill capacity, detailed siting and an ongoing waste management plan will however need to be separately addressed.</p> <p>The existing car dump will need to be removed from its present location near the outstation as it represents a low level water supply risk.</p> <p>The existing solid waste disposal site represents a low level risk water supply risk.¹⁰.</p>	<p>A suitable location for solid waste disposal site should be located not closer than 500 metres to future residential areas¹².</p> <p>Co-locate the solid waste disposal site in the vicinity of the existing septic sludge disposal site; the new location to be not closer than 700 metres from the future housing areas shown on the CLP.</p> <p>A new site for disused car storage to be established next to the proposed waste disposal site.</p>
Effluent Disposal	
<p>Problems exist regarding leach drain flooding and sewage sludge disposal.</p> <p>A reticulated (piped) gravity sewer system leading to a series of oxidation ponds is an alternative to the septic systems which are currently in use.</p> <p>Detailed design of an effluent disposal system is beyond the scope of the CLP.</p> <p>There is a natural fall across the community to the north-west which may assist in a gravity reticulation system.</p> <p>Detailed soil and subsurface rock data is currently unavailable. There is anecdotal evidence of rock close to the surface in the main community</p>	<p>Ensure that the CLP makes provision for the possible installation of a reticulated gravity effluent system and designates an appropriate site for disposal / treatment (oxidation ponds).</p> <p>DEP buffer guidelines¹¹ recommend a minimum buffer of 300 metres between effluent disposal ponds and residential areas.</p> <p>Allocate an indicative location for effluent disposal ponds on the CLP – to be co-located with other waste disposal facilities.</p>

¹⁰ Coffey Geosciences Pty Ltd (2001). Op cit.

¹² Dep't of Environmental Protection (2000), *Code of Practice Rural Landfill Management – Draft*

¹¹ Department of Environmental Protection, Western Australia (1997). *Draft Guidelines for Environment and Planning*.

Constraints and Opportunities	Upgrading Proposals
Stormwater Drainage	
<p>There is no formal stormwater drainage system. The existing road network acts to collect and channel overland stormwater flows, which creates problems by transporting water directly into the main community.</p> <p>The development of drainage basins is not considered to be appropriate nor warranted. An overall preventative drainage strategy will need to be developed additional to the CLP.</p> <p>Stormwater management is likely to comprise a series of low surface diversion berms around the southern and eastern perimeters of the community, combined with the design of drainage profiles for existing and new roads.</p>	<p>Ensure that the road network and road profiles are designed in such a way as to minimise local flooding.</p> <p>Indicative surface water drainage corridors are indicated on the CLP.</p>
Road Network and Pedestrian Movement	
<p>Current random vehicle access across the central open space area creates potential for conflict between vehicles and pedestrians and recreational use. There is potential to rationalise existing and proposed road alignments, reserves and parking areas.</p> <p>The community wishes to realign a number of roads and close several informal tracks.</p> <p>Unsealed roads add to the potential for dust nuisance and associated environmental health problems.</p> <p>Specification of the upgrading of road surfaces is beyond the scope of the CLP itself. Measures may be implemented over time according to community and budget priorities, ranging from gravel sheeting and stabilised surface treatments through to a one coat seal or, ultimately, a full asphalt road specification.</p> <p>The community wishes to exclude vehicular traffic from the central open space area. There is a need to ensure that uncontrolled vehicle access does not detract from the safety and amenity of community recreation areas.</p>	<p>The CLP integrates new with existing development by open space and road linkages, and reflects established patterns of vehicle and pedestrian movement.</p> <p>The existing NE access connection from the Beringarra – Pindar Road is retained. The SE connection to this road is terminated as per the community’s request, together with a number of informal access tracks.</p> <p>Proposed street standards are approx. 5 metre wide carriageway within 15 road reserves. This will accommodate existing and future services and allows two vehicles to safely pass. Road reserves also protect existing water trunk mains. Intersections are designed to meet safety criteria and the geometry of existing informal intersections clarified where possible.</p> <p>The street layout discourages vehicles from using the central open space area as a means of access to each house, by providing perimeter street access directly to houses.</p> <p>Pedestrian paths are designed to encourage movement between all communal areas, and provide convenient routes to focal points such as the school, office and health clinic buildings.</p>

PART 2 THE PLAN

7. CLP Constraints, opportunities, objectives and proposals

7.1 Introduction

This section of the report describes the Community Layout Plan (CLP), which is based on the following summary of development constraints and opportunities. From the analysis of constraints and opportunities, objectives are derived for each land use category, which also reflect community needs derived from background research and community consultation. The proposals explain how the CLP design seeks to achieve these objectives.

An overall plan showing the relationship of the main community to the outstation and infrastructure is included as **Figure 8.1** (overleaf). The main community CLP is **Figure 8.2.A** and the plan for the outstation is included at the end of the section as **Figure 8.2.B**.

7.2 Housing

Constraints and Opportunities

- A need for hostel or single person accommodation, particularly for younger people, has been recognised by the community;
- The camping area comprises a cleared area and ablution facilities and is not frequently used;
- Community preference is for relatively wide frontage lots.

Planning Objectives

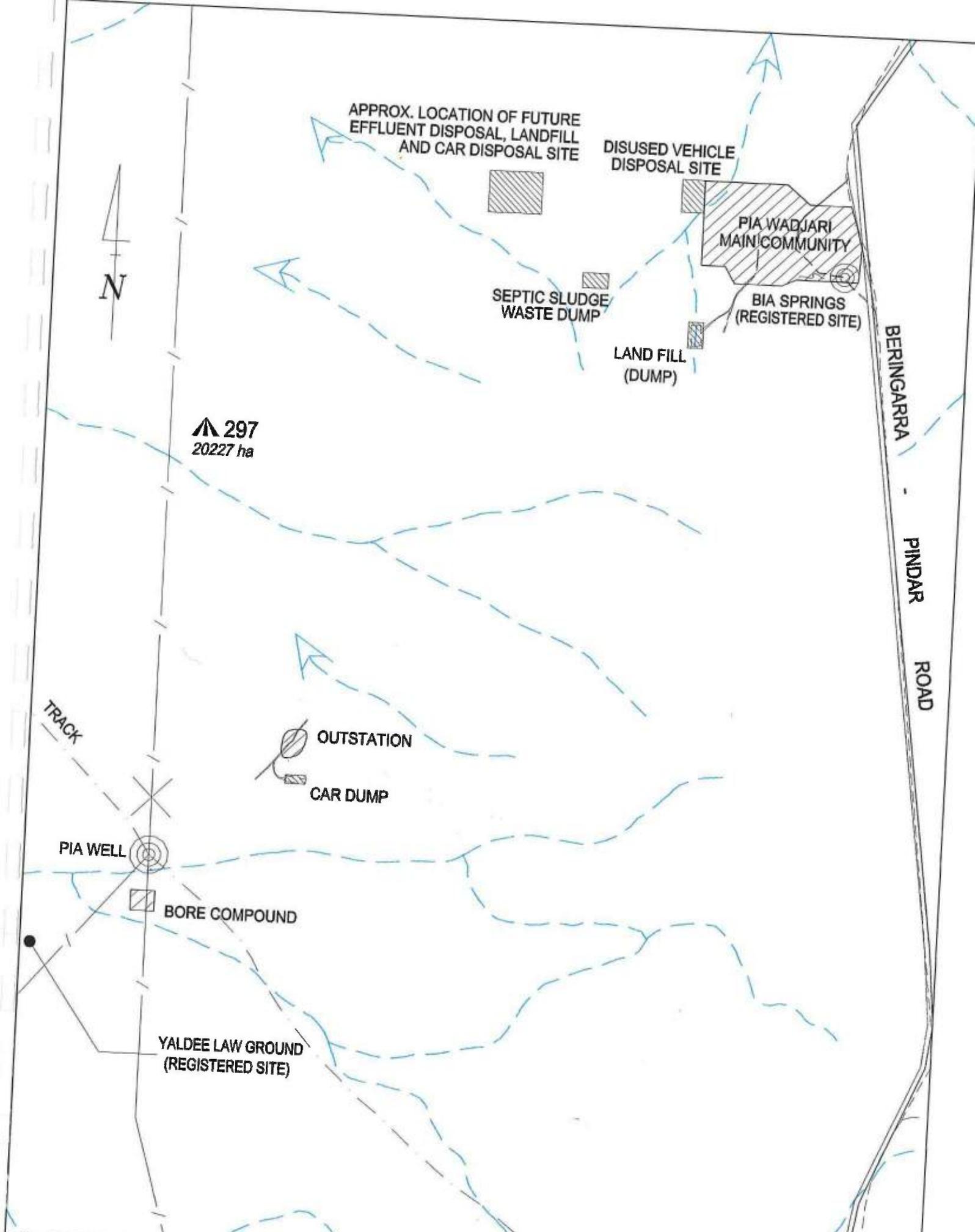
- Provide sites for permanent and temporary accommodation;
- Establish a layout for future housing areas that complements the existing character of the community;
- Ensure that residential areas can be cost effectively serviced;
- Minimise the earthworks required for future housing development.

Proposals

The layout for future housing areas complements the existing character of the community and its orientation around the central open space area. Development has been confined to an area within 200 metres convenient walking distance of the geographic centre of the community.

The existing communal open space provides an outlook for additional house sites. This form of development is repeated in the planned new housing area to the west of the existing main community. An additional long term housing area in the south-west sector adopts a conventional townsite street and lot layout. Both development patterns are capable of being readily extended to accommodate long term housing development (beyond 20 years) via extensions of the street network.

The CLP makes provision for both permanent and temporary residents and creates a simple framework that can accommodate a range of housing types, in accordance with the community's needs. These include a single persons' hostel site, a camping area, and a site for visitors' / contractors accommodation near the administration office.



Overall Layout Plan

Connell Wagner

Figure: 8.1

Designed: S. Ryan Date: 02.07.01
 Drawn: I. Nelmanis Plan Ref: C04801OA01

SCALE 1:20 000



It is envisaged that most new housing will comprise single dwellings, consistent with existing development. The proposed overall density of development is R10, or 10 dwellings per hectare, in order to satisfactorily accommodate on-site effluent disposal systems, in the event that on-site systems remain as the recommended form of effluent disposal. Approximately 35 additional housing sites are provided, based on these lot sizes.

7.3 Commercial and Community Facilities

Constraints and Opportunities

- The community seeks to develop a food store;
- There is scope for the development of additional facilities to accommodate future community needs;
- There are currently limited local economic and employment opportunities.

Planning objectives

- The CLP should make future provision for a foodstore;
- Car parking and safe pedestrian access must be provided;
- Group commercial and community facilities together for convenience and to facilitate the sharing of parking and infrastructure;
- Ensure that adequate land is available to accommodate future needs for a range of commercial and community uses;
- Permit small scale cottage industries within community purpose sites, in cases where they are compatible with the primary purpose of the building and residential areas.

Proposals

The CLP earmarks suitable sites for future community facilities in accessible locations along the main access road, including a centrally located site for the future development of a food store. A number of sites provide an adequate land supply for a range of additional community facilities, including small parking areas. A central location is provided for a Womens' Centre.

Community purpose sites have also been sited to serve as a suitable buffer use between housing areas and the proposed workshop / light industrial and service utility areas in order to assist in preserving the amenity of the community's residential living environment.

7.4 Industrial

Constraints and Opportunities

- The existing workshop is within a community open space area;
- The community considers the workshop should be converted to cater for recreation activities to complement surrounding land uses;
- As a result, there is a need to construct a new workshop.

Planning Objectives

- Ensure that industrial sites can be easily serviced and incorporate appropriate environmental design, such as suitable fuel storage, vehicle washdown areas and stormwater pollutant traps;
- Allocate sites for light and service industry and bulk storage activities;
- Site industrial activities in locations which minimise any potential nuisance to residential and recreational areas;
- Encourage the parking and servicing of large vehicles and contracting plant and machinery in an industrial area;
- Locate such uses with compatible uses such as service utility areas;
- Ensure that industrial sites do not have the potential to pollute market gardening or other environmentally sensitive areas;
- Vehicle access to industrial sites is to avoid residential and other sensitive areas.

Proposals

The existing workshop is to be converted to a recreation centre. A site for a new replacement workshop (immediately north of the power station), together with additional areas for light and service industrial uses and bulk storage activities, have been set aside in the south-east sector.

There is minimal potential for anticipated light industry to cause nuisance to the amenity of residential and recreational areas within the community. Light industrial and storage activities are compatible with the adjacent service utility areas, including the wind turbine which is an existing low level noise source. The location also minimises the need for large vehicles accessing the workshop site and future industrial sites to travel through residential areas.

7.5 Recreation and Open Space

Constraints and Opportunities

- The existing layout of houses around the central open space area facilitates social interaction and parent supervision of children;
- This area is currently being landscaped, and should provide adequate open space for most future passive recreational needs;
- Additional landscaping and the exclusion of vehicles from this area are opportunities to minimise dust nuisance;
- The community wish to develop a football oval and other active recreational activities immediately to the east of the housing areas.

Planning Objectives

- Existing trees should be protected for their shade, aesthetic and environmental values during future recreational development;
- Site active recreational activities a reasonable distance away from houses to minimise the potential for noise disturbance;
- Provide suitable areas for both passive and active recreation activities;
- Designate areas for additional landscaping on the CLP.

Proposals

The proposed introduction of traffic barriers will improve the function and safety of the open space area for children's play and enhance its usefulness as a passive recreation and meeting area for the community. The CLP encourages retention of existing trees within the central open area and around the existing camping area and identifies areas for additional landscaping. Recreational activities requiring parent supervision such as a (future) swimming pool are proposed to be centrally located.

Active recreational activities such as the BMX track, basketball court and football oval are to be located away from houses to minimise potential noise and dust nuisance.

7.6 Cultural Purpose Sites

Constraints and opportunities

- The Bia Rock Hole, located to the south-east of the community is a registered Aboriginal site.

Planning Objectives

- Protect culturally significant sites and areas from inappropriate development and identify in the CLP;
- Limit the future encroachment of infrastructure near the Bia Rock Hole.

Proposals

While recognising existing facilities, the CLP proposes to limit the extent of future infrastructure development in the vicinity of the Bia Rock Hole, located to the south-east of the community. A corridor of open space has been allocated to preserve views from the main community towards this cultural site. This open space area also serves as a drainage corridor.

7.7 Outstation

The Outstation component of the CLP (**Figure 8.2B**), essentially reflects the existing development conditions. This part of the Pia Wadjari community is occupied by a single extended family group. The CLP reflects the existing location of houses, essential services infrastructure and service alignments, and allocates land use areas accordingly. One (1) additional house site is envisaged, to accommodate future development.

ENDORSEMENTS

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 East Perth
 Western Australia 6004

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 Facsimile: +61 8 9325 9948
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 www.conwag.com

Connell Wagner

Project: Pia Wadjari Community Layout Plan					Reference: C048
To:	Copy:	Circulate:	Name:	Organisation:	Location/Facsimile:
✓			Mr Tim Simpson	Pia Wadjari Community	9963 7164
From: Steve Ryan				Date: 2 August 2002	Total Pages: 1

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Subject: Community endorsement of Community Layout Plan

Dear Tim,

Further to my letter dated 6 August 2002 and my recent telephone discussion, I understand that the final Community Layout Plan is acceptable to the community and would like to confirm your community's endorsement of the final Community Layout Plan for our records.

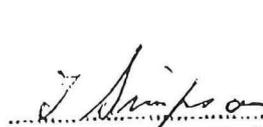
It would therefore be appreciated if you could sign where indicated below and return it to me on Fax: 9325 9948 when convenient.

Thank you and regards,



Steve Ryan
 Senior Planner

The Community Layout Plan prepared by Connell Wagner dated 7 August 2002 is endorsed by the Pia Wadjari Aboriginal Corporation.


 Tim Simpson - Chairperson

2/9/02
 Date

30



WESTERN AUSTRALIAN
PLANNING COMMISSION

Our Ref: 057/1/1/25 P30
Your Ref:
Enquiries: Cath Meaghan (9264 7685)

Chairperson
Pia Wadjari Community
C/- Post Office
YALGOO WA 6653

Dear Sir/Madam

PIA WADJARI ABORIGINAL COMMUNITY LAYOUT PLAN SUBMITTED FOR ADOPTION

I refer to the above matter. In this regard, the Commission has resolved to adopt the Pia Wadjari Community Layout Plan

Yours faithfully

for P M Melbin
Secretary
Western Australian Planning Commission

2 July 2003

cc. Shire of Murchison

RESOLVED & RECORDED IN MINUTES
OF THE STATUTORY PLANNING
COMMITTEE MEETING

01 JUL 2003



AMENDMENTS

Pia Wadjari Community Layout Plan No. 1
Amendment No. 1

Reason for the Amendment

To show where recently built houses are, give all buildings and uses a lot number and to label streets.

Details of the Amendment

The intention is to modify the community layout plan (CLP) endorsed by the Western Australian Planning Commission on 1 July 2003 as follows (**refer Attachment 1 - Amendment 2**):

Detail	Changes required to CLP [endorsed 07/2003]
1. New lot numbers	Lots to be numbered 1-34 as on CLP
2. New buildings	To show newly built houses on lots 29, 31, 32, 33 and 34.
3. Street numbers	Numbers 1-7
4. Future power station zone	Introduced in SE corner adjacent to oval

Approved / Noted:

Amendment is a spatial upgrade only. As such, no endorsement required.

- 13 March 2007

**To update the mapping, please forward details of amendment to
Western Australian Planning Commission, 469 Wellington Street, PERTH WA 6000**

Pia Wadjari Layout Plan No.1

Amendment No.2

Plan Date : 2 September 2002 **WAPC** : 1 July 2003
Proponent : Department of Planning **Endorsed**
Requires : WAPC only – minor amendment
Endorsement

Reason for the Amendment

The Department of Planning, on behalf of the Western Australian Planning Commission (WAPC), is the custodian for Layout Plans prepared under State Planning Policy 3.2, including the Pia Wadjari Layout Plan No.1.

Since the publication of that Policy in August 2000 all Layout Plan map-sets have been prepared using a variety of computer-aided-design (CAD) formats. All Layout Plan map-sets have now been converted to a common user geographic information systems (GIS) format, including the Pia Wadjari Layout Plan No.1.

This conversion process has required a comprehensive re-development of the map-set and includes a number of data and content upgrades. This may include the establishment of new Settlement Layout lots (SL-lots), the inclusion of recommended settlement zones, modification to ensure land-use areas accord with Aboriginal Settlements Guideline 1, inclusion of drinking water source protection areas, incorporation of updated cadastre, and many other general improvements.

Approved

This is a minor amendment as the myriad changes made to content and illustration are of a technical nature. As such, under provision 6.14 the endorsement of the WAPC only is required.

Western Australian Planning Commission

 2/5/2013
please sign and print name
Signed by an officer duly authorised by the Western Australian Planning Commission pursuant to section 24 of the Planning and Development Act 2005



Other Information:

This Layout Plan does not constitute development approval.

It is the responsibility of the developer to ensure that all relevant consents, approvals, licences and clearances are in place prior to commencing physical works on site. Organisations responsible for such matters may include landowner, local government, incorporated community council, native title representative body, Department of Environment & Conservation, Aboriginal Cultural Materials Committee, Environmental Protection Authority, Department of Consumer & Employment Protection and Department of Water.

Proponent	: Housing Authority WA
Date	: 31 August 2016

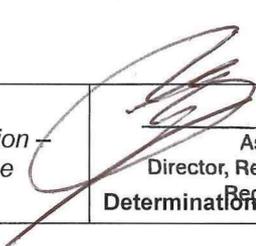
Reason for the Amendment

The Housing Authority is preparing a Housing Management Agreement with the Pia Wadjari Community to refurbish numerous residential dwellings. A recent site visit has indicated that an existing residential house is located on a non-compliant land use. Changing the land use on this lot from 'Community' to 'Residential' is required to amend this issue.

Land Identification		Amendment description
1.	SL-lot 19	Change the land use of SL-lot 19 from 'Community' to 'Residential'.

Endorsement:

In accordance with Planning Bulletin 108/2013 this amendment is minor in nature. As such, the endorsement of the Western Australian Planning Commission is solely required.

Determined on behalf of the Western Australian Planning Commission in accordance with the <i>Instrument of Delegation – Delegation to officers of certain powers and functions of the Western Australian Planning Commission.</i>		Ashley Randell	01/09/2016
		Director, Regional Planning Policy Determination	Regional Planning date PN: 15151

Other Information:

This Layout Plan does not constitute development approval.

It is the responsibility of the developer to ensure that all relevant consents, approvals, licences and clearances are in place prior to commencing physical works on site. Organisations responsible for such matters may include landowner, local government, incorporated community council, native title representative body, Department of Environmental Regulation, Aboriginal Cultural Materials Committee, Environmental Protection Authority and Department of Water.