

Bidan Layout Plan 1

Background Report

September 2011

Date endorsed by WAPC



Amendments

Amendment 1 - April 2012

Amendment 2 - September 2012



Department of
Planning



Western
Australian
Planning
Commission

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Acronyms

AHA	:	Aboriginal Heritage Act (WA) 1972
ATSIC	:	Aboriginal and Torres Strait Islander Commission
BAC	:	Bidan Aboriginal Corporation
CR	:	Crown Reserve
DoH	:	Department of Housing
DIA	:	Department of Indigenous Affairs
DoP	:	Department of Planning
EHNS	:	Environmental Health Needs Survey
FISH	:	The Foundation For Sustainable Indigenous Housing
ILUA	:	Indigenous Land Use Agreement (under the Native Title Act 1993)
ITEC	:	Indigenous employment agency
KRSP	:	Kimberley Regional Service Providers
LP	:	Layout Plan
NNTT	:	National Native Title Tribunal
NTA	:	Native Title Act (Commonwealth) 1993
NTRB	:	Native Title Representative Body
NMNTCG	:	Nyikina Mangala Native Title Claim Group
PBC	:	Prescribed Body Corporate (under the NTA, representing native title holders)
RAESP	:	Remote Area Essential Services Program
SDWK	:	Shire of Derby-West Kimberley
UCL	:	Unallocated Crown Land
WAPC	:	Western Australia Planning Commission

Layout Plans & the Development Process

Layout Plans are a plan for future growth and development. Even though a LP is prepared with consultation with a range of relevant government authorities and agencies, it does not constitute development approval.

Prior to commencing development a range of consents, approvals, licenses and clearances may be required.

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 the landowner, local government, incorporated community council, native title representative body, Department of Environment & Conservation (DEC), Aboriginal Cultural Materials Committee (ACMC), Environmental Protection Authority (EPA), Department of Consumer & Employment Protection (DOCEP) and Department of Water (DoW).

EXECUTIVE SUMMARY

Bidan Layout Plan No. 1 has been prepared over a 6 month period between 2010 and 2011.

The tables below summarise the main issues concerning planning, development and provision of services at Bidan. These issues are covered in more detail in the body of this report.

Table 1 – Population

Design Population	:	100
Existing population	:	12
Existing Service Capacity	:	25
Aspirational Population	:	120

Table 2 - Infrastructure and essential/social service characteristics at Bidan

Infrastructure/service Indicator	Community Characteristics
Drinking water	Water obtained from bore. No data available on quality or quantity.
Native title	Bidan is located within claim area of Registered Nyikina Mangala NT claim. ILUA negotiations between NMNTCG and BAC are underway.
Secure land holding(s)	All existing community housing and infrastructure, except the rubbish tip is located on land with secure and appropriate tenure.
Flood / storm surge	The area east of the community living area is subject to seasonal inundation. Flood risk mitigation measures are in place in the community living area.
Emergency assistance	Police and medical assistance in Derby and Broome, both approx 1.5 hours away by vehicle.
Education	Kindergarten located at community. Primary and high school education is provided through the Kimberley School of the Air (KSOTA) and the Schools for Isolated and Distance Education (SIDE). SIDE also provide secondary education through correspondence.
Health	No clinic at community. Hospital and services available at Derby and Broome 1.5 hours away by vehicle.
Governance	Bidan Aboriginal Corporation represents the community and is meeting regulatory requirements.
Employment and enterprise opportunities	CDEP at the community, development of a tourism enterprise, full time child care/home tutor position employed, municipal services officer part-time, Nyikina Mangala Rangers currently using the community as a base when working in the area. Established job markets at Broome and Derby, both approximately 1.5 hours away by vehicle.
Transport	Reliable road access to the community via Great Northern Highway.
Food	No store at community. Shops at Derby and Broome 1.5 hours away by vehicle.
Electricity	Bushlight PV solar array producing 48.1 kWh/day for community use. Separate diesel generator servicing the workshop.

Bidan LP No. 1 plans for future expansion of the community and formalises existing infrastructure and land-uses and provides a future lot layout and road design.

The major purpose of the LP is to guide the growth and development of Bidan by providing a layout of future land uses in the community. It has been prepared in consultation with Bidan Aboriginal Corporation (BAC) to ensure that it reflects the community's aspirations. The LP addresses future growth issues in the context of constraints to development including the close proximity of the power station to housing and other facilities, the existence of only a single water bore, the lack of essential service connections and the proposed amendments to cadastre.

Bidan is not within the RAESP program and as such there is no formal arrangement for capital works to be carried out. Furthermore there are no state government agencies responsible for providing services and infrastructure to the community.

This Layout Plan outlines a clear and straightforward way for Bidan to grow in a co-ordinated and efficient manner.

DEVELOPMENT PRIORITIES

The following initiatives, development and works are needed to implement LP No.1:

Within the next year:

1. Prepare an essential service strategy. (BAC)
2. Finalise transfer of Lot 300 (Crown Reserve 42326) to Bidan Aboriginal Corporation. (ALT, RDL, KLC & BAC).
3. Relocate derelict vehicles. (BAC)
4. Investigate solutions for wastewater management. (BAC)
5. Construct road for short term future residential area and alongside drainage channel running SW to NE (BAC).
6. Remediate rubbish tip site and relocate to proposed location. (BAC)

Within the next 5 years:

1. Develop tourism enterprise (BAC).
2. Prepare a Drinking Water Source Protection Plan for Bidan.
3. Clear, fill & drain Lots 24 - 28, 36 & 37
4. Construct 6 houses (FISH and ITEC)
5. Construct road for medium term future residential area (BAC)
6. Construct crossover at gate into community.
7. Investigate and finalise transfer of recommended cadastre (Lot 278 Crown Reserve 9697) to Bidan Aboriginal Corporation.
8. Installation of additional power source for tourism development and future residential area.

Within the next 10 - 15years:

1. Clear, fill and drain Lots 17-23 & 33 - 35
2. Investigate need for sewage ponds.

Implementing the LP

The implementation of this LP will rely on the energy and endeavour of the community members. The future growth of Bidan will require community members to find solutions for the provision of services and infrastructure (such as housing and sealed roads). This reinforces the objectives of Bidan Aboriginal Corporation to help bring about the self support of its members by the development of economic projects and industries, and to encourage members to manage their affairs on their own land.

1 REGIONAL CONTEXT

1.1 Location & Setting

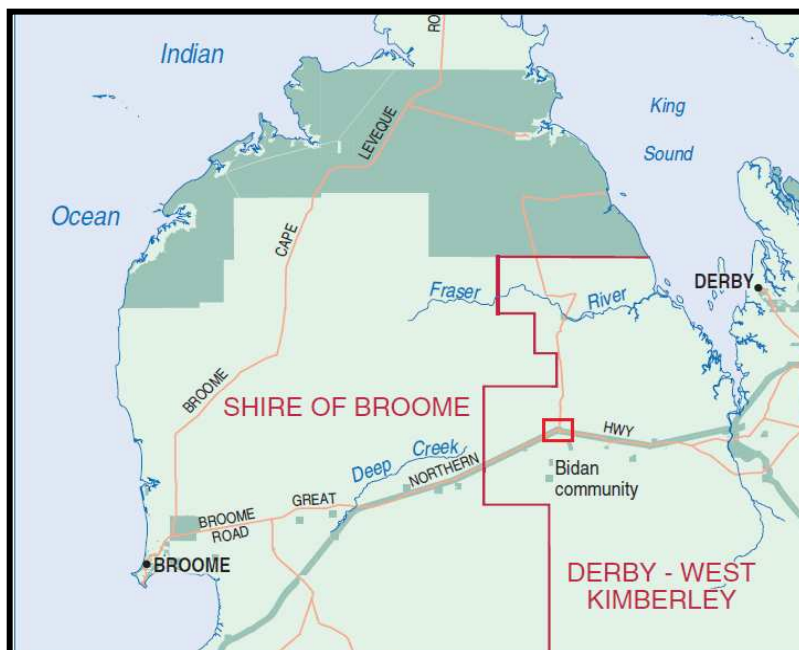


Figure 1 - Location of Bidan proximate to Derby and Broome.

Bidan is located approximately 110km south west of Derby in the Shire of Derby – West Kimberley. The community is adjacent to the Great Northern Highway.

Bidan occupies a unique location in the West Kimberley settlement pattern in the sense that it is proximate to the midway point between the coastal regional centres of Broome/Derby.

1.2 Physical Geography

Bidan straddles the Western Sand Plain and Fitzroy River Flood Plain physiographic regions of the Fitzroy Valley. Soils in this area are characterised by broad levees, plains of heavy cracking clays (black soil) with gilgai and active and relict watercourses. The floodplain is vegetated by *Eucalyptus microtheca* savanna with fringing woodland composed of eucalypts, acacias and wild figs (Storey et al., 2001). The levees are vegetated with grassy woodlands and the floodplains support grasses, scattered trees and shrubs (Lindsay & Commander 2005).

1.3 Climate

The Dampierland biogeographic region (Florabase 2009) experiences an arid to semi-arid monsoonal climate, characterised by a distinct summer wet season (Nov-Apr) and a winter dry season (May-Oct). Almost all of the rainfall occurs during the wet season.

The wet season has high humidity and frequent thunderstorms, often resulting in the flooding of river systems in the Fitzroy River floodplains. The average maximum temperature exceeds 35°C. Summer rainfall accounts for most of the annual rainfall. Prevailing winds during the wet are from the west as moist air is sucked up from the warm ocean before heavy precipitation inland.

The average maximum temperature during the dry season is 33.8°C with prevailing winds at this time from the east, which can blow dust from the dry, sandy interior toward the community. The nearest Bureau of Meteorology station to the community is at Derby Aero. The following graphs depict the recorded annual mean maximum temperature and rainfall for the Derby Aero location (sourced from the Bureau of Meteorology).

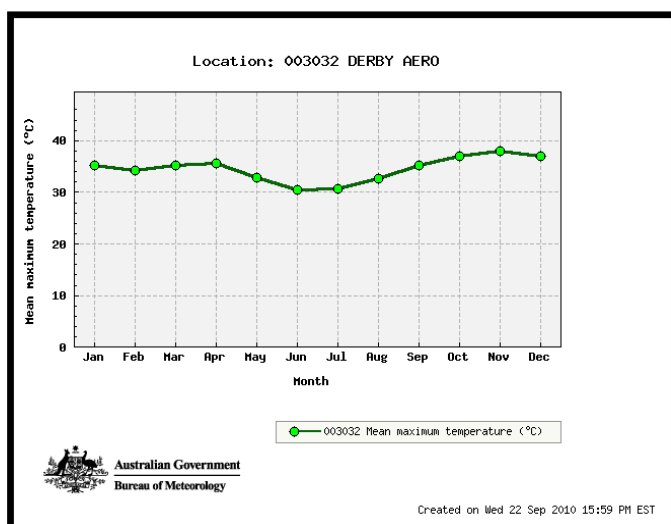


Figure 2 - Mean Maximum Temperature.

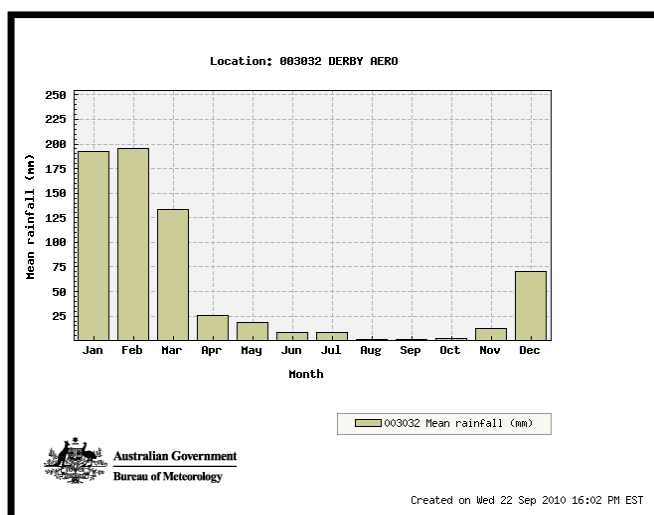


Figure 3 - Mean Rainfall.

1.4 History and Culture

In traditional times the Nyikina people would bring their children to stop in the Bidan area during the dry season. This country was also passed through by peoples on their way to visit family, for ceremony, or when travelling and hunting (Marshall, 2004). Bidan Community (formally Bedunburra) was loosely established in 1985 on the lower black soils of the 'old camp' to the east of the current settlement. Due to periodic inundation the existing community moved to higher ground and more permanent buildings during the 1990s (Marshall 2009).

The Bidan community is predominantly made up of a small group of dedicated families who are strong in their teaching of the Nyikina language and Yimardoowarra culture (Marshall 2009). Community members are multilingual speaking English, Nyikina and Kriol.

Several members of the Bidan Aboriginal Corporation are also signatories to the registered Nyikina Mangala Native Title claim.

1.5 Native Title

Native title issues affecting Bidan

Bidan is located within the Nyikina and Mangala Registered Native Title Claim (WAD 6099/98, WC 99/25, registered 28th September 1999). The claim area is approximately 27,251km². The Kimberley Land Council (KLC) via the Nyikina Mangala Native Title Claim Group is the native title representative body that represents the claimants. ILUA negotiations between the KLC, BAC and NMNTCG are currently underway.

It is critical that the layout plan respect the knowledge and incorporate the aspirations of the Traditional Owners. It should be noted that the rights prescribed under the Native Title Act 1993 to registered native title holders can vary in relation to different forms of land tenure.

Background to Native Title in Australia

The *Native Title Act 1993* (NTA) enshrines in legislation the High Court Mabo decision, in which the common law of Australia formally recognised Indigenous land ownership through the continuing observance of traditional law and custom.

Native title is defined by section 223 of the NTA as:

the communal, group or individual rights and interests of Aboriginal people or Torres Strait Islanders in relation to land or waters where:

the rights and interests are possessed under the traditional laws acknowledged, and the traditional customs observed, by the Aboriginal people or Torres Strait Islanders; and b) the Aboriginal people or Torres Strait Islanders, by those laws and customs, have a connection with the land and waters; and c) the rights and interests are recognised by the common law of Australia.

Native title is therefore not a form of land tenure, such as a freehold estate or pastoral lease, but is the recognition of pre-existing rights and interests in country.

Under the NTA, registered native title claimants and registered native title bodies corporate (often referred to as PBCs) are entitled to the right to negotiate regarding proposed future acts which may affect native title rights and interests. Procedures for negotiation can either be in accordance with Subdivision J of the NTA or in accordance with alternative procedures agreed by both parties in the form of an Indigenous Land Use Agreement (ILUA).

Examples of future acts which may affect native title rights and interests include mining exploration or the construction of public works (such public housing).

Native title rights and interests are also variously affected by different forms of land tenure. For example, native title rights and interests are generally extinguished by valid grants of freehold tenure (see Division 2B of the NTA and also Ward and Lawson decisions) while native title may co-exist with pastoral leases, but if there is any inconsistency between the two then pastoral interests are likely to prevail (see Wik decision).

Additionally, ILUAs can be entered into so that agreement can be made about instances when the non-extinguishment principle applies.

More information about native title can be obtained from the [National Native Title Tribunal](#).

2 COMMUNITY PROFILE

2.1 Population

Current Population

Estimating and predicting populations in aboriginal settlements is difficult because Aboriginal people tend to be mobile in terms of housing and living arrangements. Populations can increase and decrease quite rapidly based on family, cultural or administrative factors (see Taylor 2006 for a useful discussion of demographic trends of remote Indigenous populations).

Population figures can vary depending on the time of year of enumeration, methods and sources by which data are collected. ABS data have been criticised for undercounting populations in remote communities (Memmot et al 2004). The Australian Bureau of Statistics has advised that recent Census data for Bidan is unavailable as the community was not included as a discrete collector district in either the 2001 or 2006 Censuses. The only known published population estimates for Bidan are from the 1997, 2004 & 2008 Environmental Health Needs Survey, undertaken by the Department of Indigenous Affairs.

In 2008 the Department of Indigenous Affairs Environmental Health Needs Survey (EHNS) recorded 12 inhabitants, excluding non-permanent staff. Information gathered from the CDEP Action Plan suggests that there are currently 12 permanent inhabitants (Marshall 2009).

A summary of recent population data from these two sources follows:

Table 3 - Population figures by source 1997-2009

	1997	2004	2007	2008	2009
Total persons	17	17	12	12	12
Source	EHNS	EHNS	CDEP	EHNS	CDEP

In addition to the above, a key source of population data is from the community itself. The community has advised (November 2009) that the permanent population of Bidan is 12 people, with an occasional population of 25 (Marshall 2009). It was further advised that there are 11 families planning to relocate to the community as housing options become available.

Based on the above, this report assumes that the current permanent population of Bidan is approximately 12 residents, not including non-Indigenous staff members temporarily living in the

community. It is likely, as stated by the community, that as housing is provided, community members residing outside of Bidan will relocate to the settlement.

Design Population & Estimated Housing Demand

According to the CDEP action plan report (Marshall 2009) Bidan has not experienced any growth in numbers since 2007. The community has advised that 7 residents have left since 2007 and 7 new residents have come to live in the community. Based on community reports and intentions of related family groups to move to Bidan, the layout plan has been designed to service a population of up to 100 by 2016. To better gauge residential growth, aspirational and design population numbers need to be re-evaluated in approximately 5 years when the current layout plan is revised.

The aspirational population for Bidan as advised by community members is 120 people within 10 - 15yrs. This number includes an estimation of the transient population expected from the future tourism and youth camp development. Although both the design and aspirational population far exceeds the average growth rate for the Shire of Derby West Kimberley (5%) this growth is not inconceivable as the community has been noted to be particularly well organised and forms a desirable community location with reliable road access and plans to ensure essential service provision. It is likely that if housing and services can be provided, this design population will be met.

The community has advised that the population density per house will be lower than average as several of the houses to be built in the next 10 - 15yrs will be occupied by singles and couples. As such, it is estimated that to house the design population of 100, 20 new houses are required to be constructed over the next 15 yrs in order to maintain a density average of 4 residents per house.

2.2 Governance

The community is managed through its incorporated body, the Bidan Aboriginal Corporation (BAC). The BAC was incorporated under the *Aboriginal Councils and Associations Act 1976* on 26 August 1988 (originally under the name Bedunburra Aboriginal Community).

BAC has been noted by Marshall (2009) to be a particularly active and organised corporation, dedicated to the improvement and ultimate self sustainability of the community. It is actively involved in creating a strategic plan for the community which will incorporate plans for long term employment opportunities, and a small shop and health care facility. Whilst the corporation is small its members are driven to develop a highly successful aboriginal settlement.

The Registrar Initiated Rulebook (registered on 19 November 2009) for the BAC establishes the following objectives for the corporation:

The corporation aims to provide direct relief from poverty, sickness, suffering, destitution, misfortune, distress and helplessness to all Aboriginal people in the Kimberley Region of Western Australia without discrimination and to include, but without limiting the generality of the above, the following:

- (a) To support the social development of its members in all ways;*
- (b) To help to bring about the self support of its members by the development of economic projects and industries;*
- (c) To support education, job training, health services, work and housing for its members;*
- (d) To help and encourage its members to manage their affairs upon their own lands;*
- (e) To help and encourage its members to keep and renew their traditional culture;*
- (f) To ensure the health, well-being and education of our young people;*
- (g) To help build trust and friendship between its members and other people;*
- (h) To participate with other Aboriginal Corporations in projects for their mutual benefit; and*
- (i) To receive and spend grants of money from the Government of the Commonwealth or of the State or from other sources.*

The Bidan Aboriginal Corporation is also responsible for a variety of programs and services, as outlined in Marshall (2009);

(i) Community Development

a. Municipal services provided by the corporation includes:

- Provisions of access and internal roads,*
- Provision and maintenance of rubbish collection services and tip,*
- Landscaping of community grounds for dust control and beautification,*
- Protection from fire,*
- Upgrading and maintenance of community buildings, including housing and shelters,*
- Maintenance of community boundaries, and*
- Supply of power, water and sewerage services.*

b. Administration and governance of the community including:

- Preparation of a land transfer of the existing Aboriginal Lands Trust (ALT) reserve to the BAC,*

- *Creating links with local organisations and industry to further the growth of the community.*

These services are basic but very important so the level of need for the provision and supply of these services is very high. Currently these services are undertaken through CDEP for the most part, and in terms of administration and governance, the majority is undertaken voluntarily until the community has the capacity to fund these activities.

(ii) Commercial Development

The community have been working towards establishing a sound economic base through the development of commercial enterprises to service the local, regional markets and tourist markets. Recent enterprise proposals include:

- Development of administrative and education centres within the community that will in the future encourage economic growth there.*

The Rulebook also prescribes the decision making process for the corporation. Documents for the Bidan Aboriginal Corporation can be found on the website for the Office of the Registrar of Indigenous Corporations (www.oric.gov.au).

2.3 Land Tenure

Bidan is primarily located on Lot 300 (Crown Reserve 42326). Negotiations are currently taking place to have Lot 300 (Crown Reserve 42326), held by the ALT under the *Land Administration Act* 1997, leased to BAC. Lot 15 which is held in fee simple and is owned by the ALT is currently leased to BAC. Negotiations are underway to have the ownership of Lot 15 transferred to BAC.

When Lot 300 (Crown Reserve 42326) is leased in perpetuity to BAC for “the use and benefit of Aboriginal inhabitants”, it will represent a secure and appropriate form of tenure. Currently all community housing and associated infrastructure except for the rubbish tip (located on Lot 278 - Crown Reserve 9697) are located on Lot 300 (Crown Reserve 42326).

The Bidan Community is located on 3 separate land titles:

<i>Crown Land Title</i>	Crown Reserve 42326
<i>Lot Details</i>	Lot 300 on deposited plan 190615
<i>Status Order / Interest</i>	Reserve under management order
<i>Primary Interest Holder</i>	Aboriginal Lands Trust
<i>Area</i>	58.44ha
<i>Limitations/Interests/ Encumbrances/Notifications</i>	<i>For the purpose of use and benefit of aboriginal inhabitants</i>
<i>Record of Certificate of Title</i>	Volume: LR3070 Folio: 748

<i>Lot Details</i>	Lot 15 on deposited plan 144040
<i>Status Order / Interest</i>	Freehold
<i>Registered Proprietor</i>	Aboriginal Lands Trust
<i>Leased to</i>	Bedunburra (Bidan) Aboriginal Corporation
<i>Area</i>	16.19ha

<i>Crown Land Title</i>	Crown Reserve 9697
<i>Lot Details</i>	Lot 278 on deposited plan 240321
<i>Status Order / Interest</i>	Reserve without management order
<i>Primary Interest Holder</i>	The State Of Western Australia
<i>Limitations/Interests/ Encumbrances/Notifications</i>	<i>For the purpose of the De Grey Stock Route</i>
<i>Record of Certificate of Title</i>	Volume: LR3127 Folio: 124
<i>Area</i>	843.74 ha

The existing landholding constrains proposed development, in particular, the expansion of future residential area, the development of the proposed rubbish tip and a creation of site suitable for tourism activities at the creek east of the community. The design of the community living area requires either an extension of Lot 300 (Crown Reserve 42326) to fit the recommended cadastre (as shown on the Land Ownership plan), or an excision of the recommended cadastre from Lot 278 (Crown Reserve 9697) to be held directly by BAC, to be enacted.

2.4 Aboriginal Heritage

The following discussion of heritage matters derives from consultation with the community and a desk-top survey of sites registered under the AHA 1972 using the [Aboriginal Heritage Inquiry System](#).

The purpose of the following discussion is to foreshadow heritage constraints to development as they relate to the implementation of the LP. These constraints to development must be addressed prior to construction of housing and other works.

Impact of Aboriginal Heritage on Urban Growth in Remote Aboriginal Communities

The *Aboriginal Heritage Act 1972* (AHA) was introduced in Western Australia to provide automatic protection for all places and objects in the State that are important to Aboriginal people because of connections to their culture. The Department of Indigenous Affairs maintains a Register of Aboriginal Sites as a record of places and objects of significance to which the AHA applies. It should be noted that unregistered sites of cultural significance to Aboriginal people are also protected under the State Government's *Aboriginal Heritage Act 1972*, but only registered sites are recorded on the Department's database and are generally included in the Aboriginal Heritage Inquiry System.

The presence of an Aboriginal site places restrictions on what can be done to the land. Under the AHA it is an offence for anyone to excavate, damage, destroy, conceal or in any way alter an Aboriginal site without obtaining the appropriate approvals. Anyone who wants to use land for development or any other cause must therefore investigate whether there is an Aboriginal heritage site on the land.

Contact should be made with the relevant Native Title Representative Body in the first instance.

No formal heritage assessment under the *Aboriginal Heritage Act 1972* has been undertaken as part of the preparation of LP No. 1 and the LP Background Report and LP map-set do not represent clearance under that Act in any way. It is expected that any future development of housing and other infrastructure on the community be undertaken in consultation with the community and native title holders and cleared in accordance with the provisions of the AHA.

No-Go Area

There are no identified no-go areas in the Bidan settlement.

Registered Sites



Figure 4 - Registered site of cultural significance - Nilli Bubacca Well.

It should be noted that both registered and unregistered sites of cultural significance to Aboriginal people are protected under the *Aboriginal Heritage Act 1972*, but only registered sites are recorded on the "Aboriginal Heritage Inquiry System".

There is a registered site of significance identified as 'Nilli Bubacca Well', located within close proximity to Bidan as identified on the "Aboriginal Heritage Inquiry System". Nilli Bubacca Well is a registered site of Aboriginal Heritage significance under the *Aboriginal Heritage Act 1972*.

Heritage clearance under the *Aboriginal Heritage Act 1972* may be required, prior to the commencement of any housing or infrastructure development at the community.

2.5 Community Aspirations

Providing a sufficient standard of living for the current population of Bidan and future residents is dependent on maintaining and improving the existing facilities and making sure that there is the right mix of housing and other uses.

The ideas for improvements to the facilities noted by Bidan Aboriginal Corporation when developing the Layout Plan are listed below.

1. Develop a tourism enterprise within the community to reduce need for community members to undertake contract employment during the dry season.
2. Construct a shop proximate to the highway that will double as an office / bus stop.
3. Construct and run an independent school for K-Y10 to be run by the community.
4. Develop community vegetable garden.
5. Construct new housing to accommodate projected growth.
6. Develop a youth camp to assist with an alternative youth education program.

3 EXISTING INFRASTRUCTURE & SERVICES

3.1 Housing

Residential areas

There are currently five dwellings located at Bidan. All dwellings have been constructed by community members. There are plans for extensions to 3 of the houses at the community as family units expand.



Figure 5 & 6: Residential house and community living area showing shared ablutions.

BAC are investigating ways to construct and fund 6 new houses over the next 5 years. BAC intends to train community members (with assistance from the Foundation for Sustainable Indigenous Housing and ITEC) in house construction, whilst building the 6 proposed houses.

Number & type of dwellings

All dwellings are stud wall frame clad with colour bond corrugated steel. The quality of the dwellings is good although some repairs and extensions are required. The community members have the skills required to undertake these renovations.

3.2 Water Supply

Bidan does not have access to a regulated supply of water and is not assisted under the RAESP program. Its drinking water supply comes from a bore located on Lot 300 (Crown Reserve 42326) (future Lot 41). There is little information regarding the bore and there has been no testing of the water quality or quantity. The community has no objections to taste or supply and advises that the water table is approximately 8 - 12m below ground. A fenced elevated water tank is located on future Lot 8. The volume of the tank is unknown though the community has reported that a full tank will last the current permanent population of 12 for 4-5 days.

The current water tank will not meet the requirements of the community's aspirational population. A second elevated water tank site has been identified west of the future residential area (future Lot 40). The future water tank will service the future shop/office, residential area and tourism development. Due to the elevated position of future Lot 40 it may be possible for the water tank to not be elevated, however further investigations would be required to confirm this.

The bore is not suitably separated from incompatible land uses and is therefore at risk of contamination. The DRAFT Planning for Aboriginal Communities, Guideline No. 2: Land Use Buffers for Aboriginal Communities in WA (2009) (DRAFT Guideline No. 2) recommends a 500m buffer for groundwater drinking water sources. The power station, primary community living area and workshop are all located within 500m of the bore at Bidan and are therefore at risk of contaminating the settlement's drinking water supply.

Due to the lack of data available on water quality and quantity, it is not possible to determine whether the existing drinking water supply is adequate for either the existing or design population of Bidan. To plan for growth and to ensure adequate drinking water is supplied to all residents, data is required on drinking water capacity, supply and quality.

3.3 Electricity Supply

Present capacity & location

Bidan is located outside the Broome and Derby Electricity Licence Area, for which Horizon Power is the licensed electricity supplier. The community is responsible for provision of their own electricity.

Bidan's electricity is generated by a 48.1 kWh/day solar / diesel power station located on future Lot 6 (commissioned by Bushlight September 2010), and a backup diesel generator when required. Distribution is via an overhead network. The maximum daily AC load of the Bushlight system has been designed to meet the full load requirement of the existing settlement. The community has reported that the system regularly meets full load demand except when some non essential appliances are used. The facility includes a cement based shed that contains batteries and backup generator. The PV solar array and shed is securely fenced. The workshop is equipped with 3 phase power to allow the use of power tools. A second generator is located on Lot 10 alongside the drinking water tank to provide power to the workshop.

Prior to the Bushlight system, the community used a 30KVA diesel generator for electricity supply. The old generator shed is proposed to be closed and remediated to reduce risk of contamination to the groundwater source.

DRAFT Guideline No. 2 recommends a 200m generic buffer from power stations to residential areas. In the case of Bidan a number of houses are located within this buffer area. A number of design features of the solar / diesel Bushlight facility may mitigate potential impacts on the nearby drinking water supply. Furthermore the negligible noise produced from the system means minimal affect on amenity for the community. CAT advised that the proposed facility is to be a stand alone solar energy powerhouse that has a diesel generator as a back up only. CAT has also previously installed Bushlight solar power systems in significant environmentally sensitive areas in the Northern Territory, with the environmental impact deemed to be minimal.

Although there is space for extra solar cells and batteries in the future, the existing PV solar array power station will not meet the requirements of the community's design population taking into account both the future residential growth and tourism development. A second power station site has been identified west of the future residential area (future Lot 50). The future power station will service the future shop and office, future residential area and the tourism development. A strategy to supply essential services to the growing population of Bidan is required to ensure that it does not become a major constraint to future development.

3.4 Wastewater

Wastewater is disposed of via leach drains and septic traps. Community members have raised issues regarding a lack of maintenance and adequacy of these systems, with sewage spills caused by blockages and overflows being frequently experienced. The current system is not ideal and with expectations for significant population growth consideration of an alternative is recommended.

No groundwater contamination has been reported however as parts of the settlement are seasonally inundated it is important that issues of potential hazardous waste are dealt with and assigned a high priority. LP1 identifies a potential site for sewage treatment ponds if this option becomes viable in the future.

3.5 Flooding & Drainage

Seasonal inundation occurs east of the community living area (future Lot 15) where the 'old camp' is located. The present settlement is situated on higher ground and has drainage mitigation measures in place. The future residential area has a major drainage line running from south west to north east alongside the lots. It is expected that this will assist in directing water away from the settlement in the future.

3.6 Rubbish Disposal

The community disposes of its waste in an unfenced rubbish tip located 150m south of the community living area on Lot 278 (Crown Reserve 9697). The tip is managed by a community officer who is responsible for the burning and covering of waste. Waste at the tip facility is predominantly comprised of household rubbish and would generally be consistent with the Department of Environment and Conservation's Landfill Class II classification (putrescible, non-hazardous and nonbiodegradable inert waste). The rubbish tip is not licensed by the Department of Environment and Conservation. The community has advised that the current tip site experiences seasonal inundation.

Immediately north of the rubbish tip is an unfenced area with a large number of derelict cars. DRAFT Guideline No. 2 recommends a generic buffer of 2000m for rubbish tips from other general land uses, including residential areas. All existing houses in the community are within 500m of the rubbish tip and car disposal area, meaning that amenity and public health are at risk due to odour and dust impacts. The rubbish tip and derelict cars will need to be relocated given their proximity to sensitive land uses.

The LP provides for a future rubbish tip site 2km west of the settlement. The proposed site is sufficiently separated from incompatible land uses and is a better option for the expected population increases. It is also recommended that the derelict cars be removed to a more suitable industrial area (wrecking yard) away from the living area or from the settlement altogether (coordinated car body removal).

3.7 Access & Dedicated Roads

Road access to Bidan is via Great Northern Highway. By road, the community is located 109km from Broome and 109km from Derby. The section of the Highway between Broome and Derby is sealed and is predominantly a single carriageway road. The Highway provides reliable year round vehicular access to the community and is maintained by Main Roads Western Australia.

An unsealed, compacted gravel access road constructed but not maintained by Main Roads extends from the Great Northern Highway to the community living area. A small drainage channel dissects this access road at the approximate entrance to the settlement living area. After heavy rains the creek can be unpassable to 2WD vehicles until the water level subsides, resulting in short term (ie 1 or 2 days) disruption to vehicular access/egress and damage to the road caused by wash.

3.8 Internal Road Layout

The primary access road into the community runs from the Great Northern to the centre of the settlement living area. Informal tracks lead to the bore, water tanks and the rubbish tip. Although unsealed, these tracks are regularly graded by the community and can be used as a basis for construction of formal roads.

3.9 Community and Social Services

The following community facilities and social services are located at Bidan;

Workshop

The community workshop is located on future Lot 7. It has a cement base and is serviced with ablutions. It is connected to 3 phase power and to date has been used for servicing cars and as a general workshop area. It is not currently associated with any enterprise.

4 RECOMMENDATIONS

4.1 Design Summary

The LP map-set for Bidan is based on visits to the community and advice from a number of agencies, including the Shire of Derby-West Kimberley, Main Roads WA, National Native Title Tribunal and the Departments of Planning, Housing, Environment and Conservation, Water, Regional Development and Lands and Indigenous Affairs.

The general design principles of the plan are:

1. Maintain adequate separation between incompatible uses
2. Define a road network that is suitable for all uses, including water, electricity and other services.
3. Plan for future growth by developing a new future residential and tourism area.
4. Allocate land to allow for future growth of Bidan.

Bidan Layout Plan No. 1 shows all proposed improvements to Bidan, as well as a layout for current and future land uses. The following provides a brief explanation of the design principles and required improvements that are shown on the plan.

4.2 Relocation of Rubbish tip

The proximity of the tip to the community living area may result in odour and vermin problems for residents, and it will therefore be necessary to relocate the rubbish tip in the future.

The LP identifies a potential future rubbish tip site west of the existing facility. This site has been chosen on the basis that it is suitably distanced from sensitive land uses (1.7km from the community living area and 2km from the drinking water bore), is not subject to inundation and is south of the Great Northern Hwy. It is not currently located on secure tenure, although recommended cadastre changes have been proposed to address this matter.

Environmental, engineering and anthropological investigation into this site is required in order to verify its suitability. Relocating the rubbish tip is a significant undertaking and will require a considerable capital outlay however it is essential it is relocated as a priority.

4.3 Tenure Adjustment

Future development of Bidan will require an excision from Lot 278 (Crown Reserve 9697) to be transferred to a responsible entity. The suggested cadastre amendment extends the reserve south to the boundary of Yeeda Pastoral Station, west to include the future rubbish tip and sewage ponds, and east to include a section of creek to be used for future tourism development. The total area of the proposed recommended cadastre is 264.3ha.

4.4 Drinking Water

A paper discussing “Water consumption patterns in Australian aboriginal communities” estimates that remote aboriginal communities use between 300-400l/p/d per person (Yuen 2004). To ensure that existing and future drinking water supply and quality is appropriately protected, a Drinking Water Source Protection Plan (DWSPP) should be prepared by the appropriate agency. Such a plan would incorporate monitoring and maintenance requirements, estimates of groundwater flow directions, estimation of aquifer resources, likely zones of influence of production bores and an assessment of the potential for contaminants to impact water supplies (Global Groundwater 2004). DWSPPs also define priority protection areas that will restrict certain land uses in order to protect ground water. Protection areas are based on hydrological analysis of the particular circumstances of the water source and the settlement/s it serves rather than based on generic planning exclusion zones.

It is acknowledged that analysis of the existing water supply or the preparation of a DWSPP is unlikely in the immediate future, given that no agency has responsibility for the provision of essential services to Bidan. In the short term, removal of potential hazards to groundwater, such as old car bodies and remediation of the current rubbish tip is recommended.

Preparation of a DWSPP is a long term priority for Bidan, to ensure appropriate protection of the settlements drinking water supply.

4.5 Housing

The LP plans for 25 residential lots in the next 15 years.

The future residential area required to meet the future housing needs of Bidan is constrained by the following limitations.

- Essential service connection - All future residential lots will require the extension of essential services infrastructure. As development across all lots simultaneously may be cost prohibitive it is recommended that preparation of lots be staged as suggested.

- Access roads - The future residential area is currently, only accessible by a dirt track. Prior to works it is recommended that access roads be constructed.
- Vegetation - All future residential lots will require clearing and filling.
- Secure tenure - The long term expansion area will require execution of the recommended amendment to cadastre to ensure secure tenure for the lots

Whilst these limitations are restrictive to future development, effective management and planning will reduce or void their impact.

Based on the above, the LP provides for future housing Lots as follows:

- Priority 1 (short term) – Lots 24 - 28, 36, 37, 51 & 52
- Priority 2 (medium term) – Lots 17 - 23
- Priority 3 (medium to long term) – Lots 31-35
- Priority 4 (long term) - Long term expansion area

4.6 Road Layout

The road layout depicted in the LP generally reflects the simple road system that currently exists at the community. The LP does however propose some additional roads:

- roads in the future residential area
- access track to the proposed rubbish tip and future sewage ponds
- road for tourism development and water bore

All internal roads minus the primary community living area road are 20m in width. The community living area road is 14m in width. Existing roads should be sealed in the future to reduce issues of dust generation. A simple system of table drains similar to the community access road should be incorporated into the internal road network as it is formalised to reduce problems of stormwater pooling.

Due to the major drainage channel running alongside the internal community road (running south west, north east) damage to the road at the entrance gate to the main community living area has occurred, causing access issues in the wet. As part of future road construction a crossover at this point should be created to prevent future issues.

The community has indicated that they intend to name the roads in the future. Street names can be changed at any time, subject to approval from BAC.

4.7 Stormwater Drainage

It is recommended that the fenced historical access road for Yeeda Pastoral station that runs south west to north east of the community be retained and used as a drainage channel to direct water away from the future residential area. It will also provide a vegetated buffer between rural uses on Lot 43.

4.8 Landscaping Buffer

The community has requested that a landscape buffer be retained alongside the community access road to restrict access and create distance between the community living areas and the proposed tourism development. The buffer is identified as 'open space' on the plan.

4.9 Garden

LP1 provides for a community garden on future Lot 46 as per advice received from the community. The food produced from the proposed garden will be used as a subsistence supply.

4.10 Lot numbering

The LP assigns a future Lot number to every designated land area at Bidan, defined on the LP as "future layout and lot number". Lot numbers are a guide only, and do not exist in any legal sense. Lot numbers can be changed at any time, subject to approval from BAC.

4.11 Recommended Community Living Area

The size of the existing landholding for Bidan (Lot 300 Crown Reserve 42326) restricts proposed community development, in particular, the expansion of future residential area, the development of the proposed rubbish tip and a creation of site suitable for tourism activities at the creek east of the community. It is expected that the proposed recommended cadastre is sufficient to incorporate projected community growth and potential business development.

5 PLANNING FRAMEWORK

5.1 State Planning Policies

State Planning Policies (SPPs) are prepared and adopted by the WAPC under statutory procedures set out in section 26 of the *Planning and Development Act 2005*.

The WAPC and local governments must have 'due regard' to the provisions of State Planning Policies when preparing or amending town planning schemes and when making decisions on planning matters. The State Administrative Tribunal is also required to take account of SPPs when determining appeals.

The following SPPs were given due regard in the preparation of Bidan LP No.1:

- SPP 3 – Urban Growth and Management;
- SPP3.2 Planning for Aboriginal Communities; and
- SPP2.7 Public Drinking Water Source

5.2 Land Use Buffers for Aboriginal Communities

In 2007, consultants Arup prepared the DRAFT Guideline No. 2 on behalf of the Department for Planning & Infrastructure (DPI). The report defines minimum separation distance buffers specifically suited to the range, scale and type of infrastructure typical of remote Aboriginal communities. All buffers specified in this LP are based on that report.

5.3 Shire of Derby-West Kimberley

Town Planning Scheme No. 5

The Shire of Derby-West Kimberley Town Planning Scheme No. 5 was gazetted on 25 September 2001. Bidan is not located within the Scheme Area.

5.4 Recommended Settlement Zone

The LP No. 1 Landownership Plan shows an area defined as a 'proposed settlement zone' for inclusion within the Scheme. The intention of this proposed zone is to assist the Shire in amending the Scheme to classify land-use at the Bidan Community appropriately.

CONSULTATION, REFERENCES & INFORMATION

CONSULTATION SUMMARY

Preparation of this Layout Plan is the result of consultation with the community representatives and a range of agencies, authorities, non-government organisations during 2010-2011.

Information was obtained from the following sources.

Organisation	Date
Bidan site visits	24 Oct 2010 28 Nov 2010
Australian Bureau of Statistics	7 Oct 2010
State Land Services, Department of Regional Development & Lands	9 Feb 2011
Department of Indigenous Affairs	10 Nov 2010
National Native Title Tribunal	6 Oct 2010
Shire of Derby / West Kimberley	
Department of Water	28 Oct 2010
Main Roads Western Australia	
Department of Education	
Parsons Brinkerhoff	
Department of Housing	

REFERENCE

- Department of Indigenous Affairs (DIA) 2004 *Environmental Health Needs Survey of Indigenous Communities in Western Australia*. Government of Western Australia. Available at: www.dia.wa.gov.au.
- Lindsay, R.P. & Commander, D.P. 2005. *Hydrogeological assessment of the Fitzroy alluvium, Western Australia*, Department of Water.
- Marshall, L. 2004. *Reflections of a Kimberley Woman*, Colleen Hattersley.
- Marshall, M. 2009. *Bidan Aboriginal Corporation CDEP Community Participation Profile*. [Confidential].
- Memmot, P. & S. Long & M. Bell & J. Taylor & D. Brown 2004 *Between Places: Indigenous Mobility in Remote and Rural Australia*. Australian Housing & Urban Research Institute, University of Queensland.
- Taylor, J. 2006 *Population and Diversity: Policy Implications of Emerging Indigenous Demographic Trends*. CAEPR discussion paper No. 283/2006. ANU: Canberra.
- Weatherford, A. 2005 *Household-scale Water Supply from Surface Water Sources: Are Solar Pumps Appropriate Technology?* CRC.
- Yuen, E. 2004 *Water Consumption Patterns in Australian Aboriginal Communities*. Murdoch University.

Bidan Aboriginal Corporation Endorsement

Bidan Layout Plan No. 1

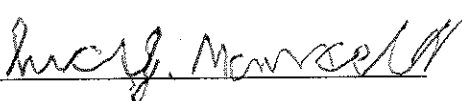

PO Box 614
DERBY WA 6728

The Bidan Aboriginal Corporation hereby adopts the **Bidan Layout Plan No. 1 (2011)** as a guide for future development within its boundaries.

The elected council acknowledges that the layout represents community aspirations for future development, and hereby adopts the plan, report and provisions at the meeting of Council held on:

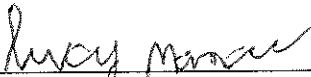
The26th.....Day ofMay.....2011

Adopted by the Bidan Aboriginal Corporation:

	
<u>LUCY MARSHALL</u>	<u>MELISSA MARSHALL</u>

Chairperson
[Please print and sign name]

Councillor



Councillor

Councillor

Councillor

Councillor

Shire of Derby-West Kimberley Endorsement

Bidan Layout Plan No. 1

PO Box 94
Derby WA 6728



The Shire of Derby-West Kimberley hereby adopts the **Bidan Layout Plan No. 1 (2011)** as a basis for future growth and development within Bidan community.

The 31ST Day of AUGUST 2011

Endorsed by the Shire of Derby-West Kimberley:

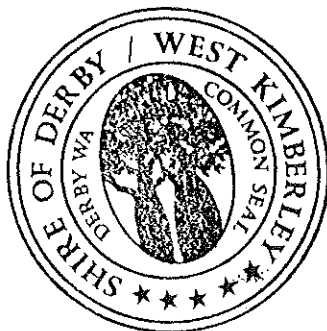
ELSIE ARCHIBALD

Shire President
(Please print and sign name)
name)

SHANE BURKE

CEO
(Please print and sign

Council
Seal



Bidan Layout Plan No. 1

469 Wellington Street
Perth WA 6000

The Western Australian Planning Commission hereby endorses the
Bidan Layout Plan No. 1 (2011) as a guide for development to
ensure proper and orderly planning within the community area

The 29th Day of September 2011

Signed for and on behalf of the Western Australian Planning Commission

Heath Loan

an officer of the Commission duly authorised by the Commission pursuant to
section 24 of the *Planning and Development Act 2005* in the presence of

M. Wrecla

Witness

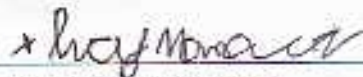
29.9.2011 Date

AMENDMENTS

Bidan Community Layout Plan No.1**Amendment No.1****Date** : 30 March 2012**Community** : 26 May 2011**Officer** : Brianna Sharp**Endorsed
Requires
Endorsement** : Yes**Details of the Amendment**

The intention is to modify the Bidan Layout Plan No.1 inline with requests made by the community (11 November 2011)

Amendments made to LP No.1

1. SL-lot creation**1. Add 'residential' SL-lot 53.****Approved / Noted:****Bidan Aboriginal Corporation***please sign and print name***Date** 16/4/2012**Shire of Derby West Kimberley***please sign and print name***Date** / / 2012**Western Australian Planning Commission***please sign and print name***Date** / / 2012

Plan Date : 26 May 2011

WAPC : 29 September 2011

Proponent : Department of
Planning

**Endorse
Requires
Endorsement** : WAPC only – minor amendment

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 Bidan Layout Plan 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 Bidan Layout Plan 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



Date 12/9/2012

Please sign and print name

Rosa Rigali
Planning Administration Team Leader
Perth, Peel Planning - Department of Planning

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.

RESOLVED & RECORDED IN MINUTES
OF THE STATUTORY PLANNING
COMMITTEE MEETING

11 SEP 2012