



# INDULKANA



COMMUNITY STRUCTURE PLAN No.1  
APY Lands, S.A.





# **IWANTJA (INDULKANA) COMMUNITY STRUCTURE PLAN NO. 1**

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**FEBRUARY 2008**

Prepared for: **Iwantja Community**

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# DOCUMENT HISTORY AND STATUS

<b>Printed</b>	26/11/2008 11:36:00 AM
<b>Last Saved</b>	26/11/2008 11:32:00 AM
<b>Job No.</b>	05/19
<b>Author</b>	John Meggitt
<b>Document Version</b>	Rev 4

<b>Revision</b>	<b>Date Issued</b>	<b>Reviewed by</b>	<b>Approved by</b>	<b>Date Approved</b>
Rev 0	20.04.07	Roger Stein	Roger Stein	20.04.07
Rev 1	27.04.07	Roger Stein	Roger Stein	27.04.07
Rev 2	30.08.07	Roger Stein	Roger Stein	30.08.07
Rev 3	26.09.07	Roger Stein	Roger Stein	26.09.07
Rev 4	07.02.08	Terry Quinn (Planning SA)	Roger Stein	07.02.08



## **REPORT LIMITATIONS**

This Community Structure Plan has been developed in consultation with the Community and Land Holding Authority as a planning guide for future development within the Community. It is proposed to be updated on a five-yearly basis.

This Plan does not commit the State Government to the funding of infrastructure proposed. The funding of proposals will be subject to budgets and infrastructure planning processes.





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## **STRUCTURE PLAN REPORT**

### **1.0 INTRODUCTION**

#### **1.1 Content and Purpose of the Community Structure Plan**

The Iwantja Community Structure Plan (Structure Plan) provides a framework within which development can proceed in an orderly and planned manner over the next 5 to 10 years. The Structure Plan consists of the following:

- A plan depicting the physical layout of the community;
- The strategic direction, objectives and principles of development control;
- An explanation of the Structure Plan; and
- A background report on the preparation of the plan including an overview of the local and regional context.

The purpose of the Structure Plan is to:

- Establish a vision for the community and a guide to future growth and development;
- Provide a community focus for, and involvement in, the development process;
- Facilitate proper and orderly planning of the community to establish development requirements based on need within cultural, 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.

The structure plan provides the community with a document that forms the basis for co-ordination of future development. The Plan can be used to assess future development proposals by government agencies, builders, funding bodies and the community.

#### **1.2 The Iwantja Community**

Iwantja is an Anangu community on the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands in the north west of South Australia. It lies approximately 575 km south of Alice Springs. It is located 70 km away from Mimili community and approximately 195 km from Umuwa; the administrative centre of the APY Lands.

The Community is located on a small ridge at the edge of the Indulkana Ranges.

The Anangu population housed at Iwantja is approximately 250 people, in addition there are a number of Anangu who are camping in the surrounding area. There are also Piranpa (non-Aboriginal) people who live and work in the community to support Anangu. The majority of people at Iwantja refer to themselves as Yankunytjatjara, which is a group having its origins in the eastern section of the APY Lands.



*Location Plan [Source, Hema Desert Series]*

## **2.0 METHODOLOGY**

### **2.1 Background**

Community Structure Plans were prepared for nine of the major communities within the Anangu Pitjantjatjara Yankunytjatjara Lands (APY Lands) in response to the need to establish a clear framework within which to accommodate development. Building works have, in the past, been initiated in some communities by State and Federal Government agencies without reference to clearly defined plans for the physical growth of the communities.

For the Anangu to be able to take responsibility for guiding the development of their communities and to protect places of cultural significance they need to have structure plans in place which are an expression of how they wish to see the physical development of their communities occurring.

Most of the funding for community facilities comes from a variety of sources outside the APY Lands. In the absence of adopted structure plans, some new facilities have been put in place without adequate input from community members and in locations which could be adversely affected by environmental conditions.

It is recognised that due to the remoteness and limited commercial opportunities within the APY Lands that outside funding to sustain the communities will be required for the foreseeable future. In addition, it is anticipated that local communities will continue to have only limited influence on the timing, scale, scope and funding of the infrastructure and development works being undertaken.

Furthermore, the high cost of providing and maintaining infrastructure in communities located great distances away from major urban centres, necessitates that existing infrastructure and facilities are well utilised.

As such, while it was essential to obtain input from the community members on the content of the structure plans, it was also important to seek out and include input from those agencies and authorities with responsibility for the current and future provision of services and infrastructure.

The plans give cause for questions to be asked about the sustainability of the communities, in particular with regard to underground water resources. At the present time there are concerns regarding the sustainability of water supplies in some communities. Ongoing investigations are required across the APY Lands for how to not only provide for future increases in population but also to accommodate current population levels over time.

Groundwater monitoring undertaken by the Department of Water, Land and Biodiversity Conservation at Iwantja indicates that the community is vulnerable in terms of its water supply as the aquifer water levels are declining.

The structure plans have been prepared during a time of re-evaluation of past policies towards remote Indigenous communities and uncertainty in regards to future funding. The structure plans however provide a robust framework to accommodate physical changes reasonably expected to occur and allow for flexibility when future development pressures arise within the five to ten year life of the plans.

### **2.2 Tasks**

The methodology followed for the preparation of the Community Structure Plans is summarised below:

- Investigation and research.
- Plan formulation and refinement through testing and review.
- Development of a preferred plan.

**2.2.1 Stage 1: Preliminary Investigation**

- Project Inception meeting with Planning SA and other stakeholders.
- Obtain relevant documents, demographic details, community contact details.
- Obtain base mapping, aerial photographs and format base plans.
- Site visit and undertake site inspection.
- Community consultation.
- Mapping of physical constraints, opportunities, infrastructure, housing, community facilities.
- Documented meeting/s, interviews.

**2.2.2 Stage 2: Structure Plan - Formulation**

- Prepare draft Structure Plan.
- Site visit.
- Meeting with Community to present draft Structure Plan and receive comments.
- Copies of draft Structure Plan left to be distributed to school, art centre, placed on community notice boards.
- Meeting with client.
- Client and other stakeholders review structure plan, provide comment.

**2.2.3 Stage 3: Draft Structure Plan - Review and Revision**

- Comments received, modifications made to the Draft Structure Plan.
- Draft Report prepared.
- Site visit.
- Meeting with Community to present revised draft Structure Plan and Report, and receive comments.
- Copies of revised Plan and draft Report left to be distributed, placed on Community notice boards.
- Meeting with client, provide copy of revised Structure Plan, draft Report for comments.

**2.2.4 Stage 4: Structure Plan and Report - Finalization**

- Comments received from stakeholders, modifications made to final Structure Plan, Report.
- Prepare final Structure Plan and Report.
- Site visit to address APY Executive meeting.
- Copies of Structure Plan and Report issued.

## **3.0 REGIONAL AND LOCAL CONTEXT**

### **3.1 Land Tenure**

Iwantja is part of the Anangu Pitjantjatjara Yankunytjatjara Lands which are incorporated by the Pitjantjatjara Yankunytjatjara Land Rights Act in which the SA Parliament gave title to the APY Lands to Aboriginal people in 1981.

### **3.2 Anangu Pitjantjatjara Yankunytjatjara Executive Board**

The Anangu Pitjantjatjara Yankunytjatjara Land Rights Act, 1981, provided for the vesting of title of the Anangu Pitjantjatjara Yankunytjatjara Lands to the people known as Anangu Pitjantjatjara Yankunytjatjara. The Executive Board of Anangu Pitjantjatjara Yankunytjatjara (APY) was constituted under this Act. The administrative centre of the APY Lands is at Umuwa near Pukatja.

The APY Executive Board oversees the activities of the various constituent groups serving the needs of the people on the APY Lands. It also helps shape policies regarding economic and social development. The Executive Board comprises elected members from across the APY Lands and they choose their own Chairperson.

Under the Act the functions of the Executive Board of Anangu Pitjantjatjara Yankunytjatjara are:

- to ascertain the wishes and opinions of traditional owners in relation to the management, use and control of the APY Lands and to seek, where practicable, to give effect to those wishes and opinions;
- to protect the interests of traditional owners in relation to the management, use and control of the APY Lands;
- to negotiate with persons desiring to use, occupy or gain access to any part of the APY Lands; and
- to administer land vested in Anangu Pitjantjatjaraku.

### **3.3 Community Management**

Iwantja is controlled and managed by a Community Council and supported by an administration staff member. The community has a corporate CDEP with members participating in a range of employment activities. It employs staff through CDEP projects including administration and maintenance work within the community.

### **3.4 Nganampa Health Council**

Nganampa Health Council is an Aboriginal owned and controlled health organisation operating on the Anangu Pitjantjatjara Yankunytjatjara Lands in the far north west of South Australia. Across this area, Nganampa Health operates clinics, an aged care respite facility and assorted health related programs including aged care, sexual health, environmental health, health worker training, dental, women's health, male health, children's health and substance abuse prevention.

The main clinics are located at Iwantja (Indulkana), Mimili, Fregon, Pukatja (Ernabella), Amata, and Pipalyatjara while smaller clinics are located at Yunyarinyi (Kenmore Park), Nyapari and Watarru. The organisation has administration offices at Umuwa and Alice Springs.



### 3.5 Ngaanyatjarra Pitjantjatjara Yankunytjatjara Women's Council

The Ngaanyatjarra Pitjantjatjara Yankunytjatjara Women's Council (NPYWC) was formed in 1980. NPYWC has its administrative office in the main regional town of Alice Springs. Regional offices are located at Umuwa in SA and in Wingellina, WA.

The objectives of the organisation are:

- Provide a forum for Ngaanyatjarra, Pitjantjatjara and Yankunytjatjara women to discuss their concerns;
- Promote women's membership of and participation in community councils, ATSIC Regional Councils and other organisations;
- Help individual women achieve further training, education and employment;
- Assist in the establishment of appropriate health, education, cultural, artistic and social services;
- Promote and support the achievements and authority of women;
- Distribute information about issues of importance to women;
- Promote and encourage women's Law and Culture.
- PY Media

PY Media is incorporated as the regional body to assist communities to develop their own community media centres. It has a regional office at Umuwa and offices in Alice Springs.

PY Media is known nationally as a leader in remote communications. Its achievements demonstrate innovative and appropriate technological solutions for Indigenous people living in remote Australia. PY Media manages a number of communication and media projects including:

- Provide services to communities on the APY Lands and NT communities.
- Radio: training, maintenance and upgrades.
- Video: training, maintenance and upgrades.
- IT: training, maintenance and upgrades.
- WaruTech: UHF, broadcast maintenance: TV and radio services.
- Channel 31: broadcast per day nationally on the Imparja footprint.
- Video Conferencing: installation, training and maintenance.
- Radio Vision project in all communities.

### 3.6 AP Services

Anangu Pitjantjatjara Services (AP Services) is based in Alice Springs and has an office and works depot at Umuwa. Umuwa is located approximately central to the major communities on the APY Lands.

AP Services is an independent organisation providing a range of services to Anangu Pitjantjatjara Yankunytjatjara. This involves project management and coordinating maintenance programs that support APY's responsibility as the land owner/land title holding body, particularly Anangu environmental health and safety. AP Services works very closely with Nganampa Health's UPK section.

AP Services has been responsible for: roadworks (including grading and realignment), housing repairs and maintenance, development and construction projects, construction inspection, waste management, homelands essential services, bore maintenance and alternative energy programs and other works related programs as they evolve.

## **4.0 HUMAN AND ECONOMIC ENVIRONMENT**

This part of the report provides background information on the Iwantja community. It includes details about its population, economic activities, the transport network and climate. This section is drawn from various reports and other sources.

The APY Lands are located in South Australia's most northern region. They are bordered by Western Australia to the west, Northern Territory border to the north and encompass the Great Victorian Desert to the northeast. It covers an area of 105,000 square kilometres, which is approximately 10.7% of the state's total area.

### **4.1 Community Demographics**

The 2001 demographic profile for Iwantja provides some context for the demographics of the community. It is noted however that more recent surveys indicate that the Anangu population is currently closer to 250 people. The following characteristics are noted:

#### **4.1.1 Population**

Iwantja community had a population of approximately 225 people in 2001. Of those people, 198 (88%) were Indigenous persons. The core population fluctuates with many residents being transient.

Using the 2001 census figures, the median age of Indigenous people in Iwantja is 26 years while the median age for the state as a whole was 37 years. The gender ratio is expressed as the number of males per 100 females. The gender ratio for Indigenous people at Iwantja is 108.93. This suggests a young population, with more males than females.

#### **4.1.2 Household Status**

Occupied private dwellings are used as the basis for analysis and a family is defined as two or more persons, one of whom is at least 15 years of age who are related by blood, marriage (registered or de facto) adoption, step or fostering and are usually resident in the same house.

In Iwantja 51.2% of households were family households. The most common type of family is a couple with children (43%), followed by families without children (24%).

There are now 33 community occupied houses, including aged person dwellings; accepting an Indigenous population of 250 this indicates an average household size of eight persons per house.

At times residents may be waiting for accommodation, others might be visiting from affiliated homelands or communities, others might be travelling on lore or other culturally related activities. There may be occasional influxes of visitors during lore business and sporting events such as football carnivals. The population can increase significantly during such events. Similarly, when lore business and sporting events occur elsewhere in the APY Lands, attended by Iwantja people, the population is temporarily reduced.

## **4.2 Historical Context**

Iwantja community is located on land that was previously used for pastoral activities. The community was established in the early 1970's after the land was returned to the Traditional Owners. In 1973 the first school was begun with classes being held in temporary accommodation made up of tents and sheds built from timber and brush from the surrounding bush.

## **4.3 Economic Context**

### **4.3.1 Local Economy**

Employment is provided at the school and health clinic as well as CDEP employment activities associated with maintenance and administrative works. Art and craft is produced at the Iwantja Arts Centre and it is the main source of outside income for the community members. A number of the women and some men in the community come to the arts centre to work. Arrangements have been established for tourists to visit the centre through organised tours.

The artists in Iwantja are all a part of the wider Anangu art collective on the APY Lands, Anangu Arts. There are many different kinds of artworks produced ranging from paintings, screen prints, tie-dye t-shirts and batik to traditional woodwork, floor rugs and Tjanpi (spinifex) baskets.

### **4.3.2 District Community Facilities**

Alice Springs in the Northern Territory is the nearest major town and supports a population of approximately 25,000 plus many more visitors during peak tourist periods. The town provides a wide range of education, health, administrative, commercial, sporting and cultural facilities. There is a strong reliance on the regional facilities located in Alice Springs due to its proximity and accessibility and this arrangement seems likely to continue into the future.

## **4.4 Transport Network**

Iwantja is serviced regionally via a strategic freight and tourist road network using the Stuart Highway to connect to Alice Springs (575 km to the north). There is a 6 km unsealed road to the Stuart Highway. Road conditions to the other communities on the Lands vary from impassable after rains to very rough during dry periods.

Internal community roads require sealing for dust abatement in the summer and safety in the wetter months when there is some water pooling.

## **4.5 Climate**

Iwantja has a dry climate with hot summers and mild winters, it has a similar climate to Marla; 50 km to the south on the Stuart Highway where there is a weather station. The recorded annual average rainfall is 233 mm; while the average rainfall is higher during the warmer months of the year, there is also considerable variation from year to year.

January is the hottest month, with an average maximum temperature of 37°C. By contrast winters are mild, with July average maximum and minimum temperatures being 20°C and 5°C respectively. The wettest months are November to March, with February being the wettest month with an average rainfall of 31 mm.

## 5.0 EXISTING DEVELOPMENT

### 5.1 Housing

Existing residential development consists of 56 houses including attached dwellings. Twenty three of the houses are reserved for administration, store, health, education and essential services staff. The remaining 33 houses are occupied by Anangu.

With the Anangu population of Iwantja being approximately 250 people this indicates a household density of approximately eight people per house. However it is reported that some houses accommodate members of their extended family and have over a dozen people residing in them for long periods.



*Typical community house*

Community council members have confirmed that many existing dwellings are overcrowded and there is a need for additional housing. The houses are in a fair to poor condition. Approximately six older houses have been demolished in recent years. These serviced sites provide the opportunity for new dwellings to be established within the established residential area.

A number of members of the community camp in wiltjas and other forms of bough shelters to the immediate south east of the community. The living conditions here are poor; the area lacks ablution facilities and is affected by water runoff after rains. House sites are mostly rectangular and have areas of approximately 900-1,200 m<sup>2</sup> with frontages of 35-40 m.

### 5.2 School

The Indulkana Anangu school was established in 1971. It has approximately 80 students in primary and secondary school and 20 children in pre-school. Curriculum areas are coordinated between Anangu schools and are based on standard South Australian curricula. The schools have a strong history of curriculum/policy development and documentation, aided by regular meetings of curriculum working parties. There is ongoing modification of standard curriculum documents to meet the needs of Anangu children.



*Indulkana Anangu School*

There are no major new facilities proposed at the school, future initiatives include a roof structure for the basketball courts.

### 5.3 TAFE

The TAFE building is located opposite the office. It is an old building in average condition. The centre is not currently operating however it is proposed that program will soon be restarted. A new dwelling is proposed for the teacher.



*Iwantja TAFE*

## 5.4 Store

The Iwantja store is a large relatively modern facility located close to the office and school. The store has a range of fresh and frozen foods and also stocks clothing. Fuel bowzers are located at the rear of the building.

A large covered community gathering area is located outside the entrance to the store which is a community focal point.



*Iwantja Store*

## 5.5 Office

The office is centrally located and adjoins the main access road into the community. It is also close to the store, the school and other community facilities. The building is relatively new and is in good condition. Unpaved parking areas are located at the rear and in front of the building. The building has offices for the administrative staff and also has a meeting room for the Community Council.

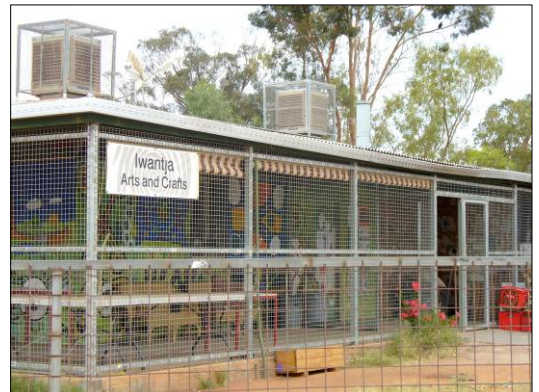


*The Office*

## 5.6 Arts & Crafts Centre

Indulkana Arts Association was established in the 1970s, it has been located in the current building since 1995. There is a full time arts coordinator at the centre and a commercial tour group Wayward Bus brings visitors to the centre two to three times a week.

The community has a tradition of wood carving (punu), and this has expanded to batik, patchwork, dying, painting and around the early eighties linoblock printing started. Over 100 prints and many drawings from that time are in the South Australian Museum. The Iwantja Arts Centre is well recognised on the basis of its strong cultural identity and impressive output.



*Iwantja Arts and Crafts*

## 5.7 Health Clinic

The Iwantja Health Clinic is a modern facility operated by Nganampa Health Council. The Council is an Aboriginal owned and controlled health organisation operating on the Anangu Pitjantjatjara Yankunytjatjara Lands.



*Health Clinic*



## 5.8 Aged Accommodation

Indulkana Aged Accommodation provides a place for Elders to stay. The facility consists of three main buildings which serve as accommodation, kitchen, laundry and toilet facilities.

The buildings are located a few hundred metres to the north of the community down a hill from where most of the health and community facilities are located.



*Aged accommodation building*

## 5.9 Open Space and Recreation

A number of trees have been planted within the grounds of many of the houses however Iwantja lacks well established trees and other landscaping within the public areas and along roadsides. As a result it has a harsh appearance and suffers from dust problems. The community is located on a small hill, the exposed nature of the site and lack of vegetation in the surrounding area accentuates the barrenness of the site.

Football and softball ovals are located 300 metres north east of the school; they are not grassed and there are no plans to reticulate the area. Children's play equipment has been provided at the rear of the Arts Centre. Basketball courts within the school grounds are available for after school use. A large shed located at the western end of the Community has been identified for a future indoor recreation centre. At present the building does not contain any facilities or equipment.



*Additional landscaping is required*



*Play equipment near the Arts Centre*

## 5.10 Industrial

Large vehicle and equipment workshops within fenced and secure compounds are located at the south western edge of the community. The CDEP equipment is based here. The facilities are used for minor vehicle and equipment repairs and for the maintenance and the storage of machinery. The fire truck is also located within this compound.



*The workshop and CDEP equipment*

### 5.11 Police Facilities

A Police post is located adjacent to the office however there is no permanent Police presence in the community. Police from Marla undertake patrols across the APY Lands and visit Iwantja as required.



*The Iwantja Police Post*

### 5.12 Cultural Purpose Sites

Open air church services are held at a site at the north western edge of the community. An old derelict church building is also located in this area. The structure contains asbestos and is earmarked for demolition.

A grave of a community Elder is located adjacent to the old church and is to be protected if future development takes place in this area.

The cemetery is located approximately 1.8 km from the community to the north east of the aerodrome runway. The vacant land on the corner site immediately west of the office is used for community gatherings.



*The outdoor church*

When development is proposed further enquiries should be made with the Community Council and APY regarding the significance of the particular site.

### 5.13 Visitor Camping Areas

Visitors and some regular community members camp in the area to the south east of the community which contains a number of shade trees. No areas have been formally designated for large groups of people visiting the community for cultural or sporting occasions, nor are any visitor ablution facilities currently provided.

## 6.0 EXISTING INFRASTRUCTURE

### 6.1 Water Supply and Reticulation

Regular groundwater monitoring on the Lands is undertaken by the Department of Water, Land and Biodiversity Conservation. These investigations provide details of water bore production and have indicated that aquifer recharge at most of the communities is generally being restored to, or above, the levels recorded at the time of drilling. However at Iwantja it has been found that, while in the past recharge to the older bores has occurred, the community now relies on larger supplies from the Indulkana Range bores where the aquifer is not being recharged and where water levels have been found to be declining.

Iwantja has a dual reticulation system of drinking water and ablution water supplied by four bores fitted with electric submersible pumps. An automatic control system is installed to start the bore pumps on demand.

The drinking supply is drawn from two bores (Bore 19 and 19a) located approximately 3 km south of the community and pumped to two 30 kL poly ground tanks in the central tank yard at the south end of Kupi St.



*Water tanks and treatment facilities*



*Water bore pumping equipment*

It is then transferred to a 20 kL poly tank on a 12m stand and reticulated to the community via the drinking water pipe system. An outlet for the drinking water is fitted over the kitchen sink in each consumer facility. Bore 19 and 19a have a small pumping flow and thus cannot meet the total demand of the community.

To supplement the town supply, water of a lower quality is drawn from two additional bores (IMBR-1 and IMBR-2) approximately 1 km away from the potable bores. This water is allocated for ablution purposes. The lower quality water is pumped to two 304 kL storage tanks in the central tank yard and transferred to a 20 kL poly tank on a 12m stand. The water is then reticulated to the community via a separate non-potable pipe system. Each consumer point is planned to be fitted with a water meter.

At the time of the site visit, one of the lower quality water bores had broken down and in order to meet the water demand, the supplies from the remaining bores were being mixed. The reticulated water is UV treated and the quality is tested regularly by SA Water.

Investigations undertaken to date indicate that there are significant limitations on the groundwater availability. Despite extensive groundwater searches over many years, no major new water bore fields have been identified; the future capacity of the area to meet the water supply needs of the community is unknown. As such a significant expansion of the community cannot be deemed to be sustainable and any new development should take into account the limitations of the water supply.

The constraints on water resources will need to be taken into consideration when considering future development proposals within the community.



## 6.2 Effluent Collection and Disposal

All existing dwellings, community buildings and public ablution blocks are connected to septic tanks that in turn flow to the reticulated gravity common effluent drainage system. Half the community - Ngin Taka St, Anangu St, Church St and north of this flow to the effluent pump station located north of the community between the Aged Care Centre and the main road.

The sewage is then pumped back into the community to a manhole on the corner of Indulkana Boulevard and Kula St.



*The sewerage ponds*

The septic tank overflow from the rest of the community (except for Mt Chandler Drive) is gravity fed to this point and the combined volume is gravity fed to the sewage ponds located approximately 1.5 km east of the community. The sewage from Mt Chandler Drive is picked up on the way. Septic tanks are cleaned out by AP Services every 12 months.

Two lined earth banked sewage ponds, are used to treat and evaporate the effluent. The ponds appear to be operating effectively. The outflow of the sewage ponds is managed by thirteen soakage trenches adjacent to the ponds.

## 6.3 Electrical Generation and Distribution

Power is generated for the community by two diesel generators, which are housed in a corrugated iron shed. Two elevated fuel tanks and the power station shed are contained within a fenced compound.

Power is reticulated throughout the community and to the bore sites by a standard ETSA overhead distribution system with a combination of high voltage (11,000 V) and medium voltage (415/240 V) power lines. Street lighting is provided by standard street lights mounted on stobie poles.



*The power generators*

The diesel generator electricity supply for Iwantja is to be replaced by overhead power from the new Central Power Station at Umuwa. It was not confirmed whether the existing generators would be retained as a backup system. The location of the power station is very close to town and relocation may be considered if they are to be retained. There is no redundancy for local generation at peak demand, thus an auto synchronisation board is required.

## 6.4 Road Network

Access to Iwantja is from the unsealed link road connecting the Stuart Highway and Mimili, Fregon and the other communities in the eastern APY Lands. The access road running into the community crosses a small water course which flows after heavy rains and which can prevent access to the community for short periods.

The roads and building lots within Iwantja have been set out in a compact modified grid form with an east west layout over a low lying hill. The location of the office, store and community meeting place close to the centre of the community provides for a highly accessible and legible layout and enables good pedestrian access. This layout of the community provides a sound basis to accommodate growth however it will eventually be constrained by the sloping sides of the hill.

None of the internal roads are formed or sealed, the fencing around houses, the school and utilities defines the road reserves. In some areas large rocks and earth speed bumps are used to control vehicle movements.

Dust from the roads affects the health of community members. In addition the lack of vehicle controls around the shop, office and central meeting area also creates a dangerous environment for children and other pedestrians.

The roads have been given names however there is no signage in place for the streets or other facilities. This not only makes it difficult for visitors to find their way around but it also has the potential to reduce response times in the event of an emergency.



*Roads are unsealed and poorly defined*



*Rocks used to control traffic*

## **6.5 Aerodrome**

The aerodrome at Iwantja is no longer in use. The disused aerodrome is sited approximately 500m to the north east of the community. It is in a low lying area containing soft soils adjacent to a water course which flows after heavy rains. The site is also affected by runoff from the hill on which Iwantja is located and become boggy after heavy rains.

There are no current plans to identify an alternative airstrip site. Where an emergency evacuation is required patients are taken to either Marla or Mimili which are both approximately 50 km away.

## **6.6 Drainage**

There is no formal drainage infrastructure in place. The majority of the community is located on an elevated site, as such storm waters from the surrounding hills flow around the site. There is some water pooling for short periods after heavy rains however this does not restrict access or have any significant impact on the community.

## **6.7 Telecommunications**

The community is reticulated with Telstra infrastructure with one public phone and telephones at the office, school, clinic and shop and the water storage compound. A Telstra optic fibre facility is located east of the school building. PY Media provides radio, television and internet services to the community.

## 7.0 OPPORTUNITIES AND CONSTRAINTS

### 7.1 Areas of Cultural Significance

The main areas of cultural significance in the area are located to the south of the community in the Indulkana Hills. The current open air church and the derelict church and grave are recognised as being of importance to the community. This locality has been designated for future buildings for religious services.

When development is proposed further enquiries should be made with the Community Council and APY regarding the significance of the particular site.

### 7.2 Landform

Iwantja is located on a small flat topped hill . The Indulkana Ranges are located approximately 500 metres to the south and running in an east -west direction. The hill on which the community is located and the surrounding area appear to have originally had little substantial vegetation. Efforts have been made in recent years to establish trees and other vegetation within the community. The soils are of a gravely nature which appear to drain well and provide a sound foundation for building.



*Looking north from the community*

There are a number of areas remaining on the flat elevated ground of the community for additional development. There would appear to be sufficient unconstrained land available to accommodate the current rate of growth over the next five to ten years.

### 7.3 Localised Flooding

There are no permanent creeks in the area however after heavy rains a water course to the north of the community flows past the community and can prevent access for short periods.

Water pooling can occur within the community after heavy rains however this disperses relatively quickly. While the majority of dwellings and facilities are located on elevated ground the aged persons accommodation and two dwellings are located to the north of the community in a low lying area where there is anecdotal evidence that flooding can occur.



*Watercourse on the northern entry to the community*

### 7.4 Water Bores

The bores are located over three kilometres to the south of the community within the Indulkana Ranges, from here the water is piped to the storage tanks at the centre of the community. The access road to the bores is secured with a locked gate. The bores isolation from other community facilities protects the water sources from contamination.



The pumping equipment for each of the bores is contained within a locked cage. The proximity of the bores away from the community protects the integrity of the water supplies and as such buffer areas are unnecessary.

The supply of water at Iwantja is limited and, unless new water resources are identified, the development of facilities that would encourage an expansion of the population is to be discouraged.

## 7.5 Sewerage Disposal

The dwellings and other buildings have septic tanks which are connected to the two sewerage ponds located 1.5 km to the east. A compound with 2.0 metre locked fence surrounds the ponds. The ponds are located a sufficient distance from the community and other infrastructure to ensure that they have no adverse impact.

An effluent pump station is located approximately 80 metres north of the aged persons' accommodation. When the pump station equipment breaks down the area is affected by odours from the sewerage overflow. The design of the network does not allow for this problem to be easily overcome. This locality is also within a potential flood area; the existing facilities here should not be expanded.

## 7.6 Waste Management

The waste management area is located approximately 1.3 km south east of the community. Rubbish is dumped in pits approximately 2.0 metres deep which are later backfilled. The area is partly within an unlocked compound surrounded by a 2.0 metre wire mesh fence; however much dumping has occurred in the area surrounding the fenced compound.



*Waste disposal area to the south of the community*

## 7.7 Industrial Area

The power generators are located on the southern edge of the community in close proximity to a number of dwellings. One of the generators is located in a small shed and the other with a portable covered structure.

It is reported that the noise from these generators has given cause for complaint from those living nearby. However power is due to be provided from Umuwa within the next 12 months; the existing diesel facilities will remain as a backup. To the west of the generators are CDEP equipment storage sheds and fenced compounds.



*Storage shed and fenced compound*

## 7.8 Dust

Within the community and the surrounding area there is only a light cover of grasses and other vegetation. As such large amounts of dust are generated in windy conditions. Over the years some trees and shrubs have been planted, mainly in private gardens adjoining houses.

A new planting program has recently been initiated. This will assist with the control of dust, provide shade and improve the amenity of the community, however until significantly more trees are planted, the roads are sealed and vehicle movements are controlled dust will remain a significant problem.



*Landscaping works are underway*

## 8.0 LAND USE RISK ASSESSMENT / RESPONSE

The region within which Iwantja is located is not one which is subject to catastrophic events such as cyclones, tropical storms or earthquakes. However isolation from other major regional centres, restrictions on accessibility in the event of an emergency and limited resources to deal with even small scale events increases the vulnerability of the community.

The protection of essential services and infrastructure such as the power supply, water supply and sewerage network is also critical to the normal functioning of the community. The main hazards the community is exposed to are local fires, possibility of severe storms and flash flooding.

The Iwantja Community Structure Plan provides an important component of an emergency management plan. By reducing the exposure to risk, working with the natural environment and identifying appropriate locations for development it provides a framework within which the emergency management plan can be developed.

### 8.1 Isolation

The remote location of APY communities, in the north west of SA, means they are difficult to travel to at certain times of the year. When rain causes flooding, roads can be cut which then limits supplies of essential goods such as fresh food, fuel for generators, and services such as medical attention.

The only alternative is air transport which is very expensive and which cannot re-supply communities with heavy items. In the event of an emergency such as a major fire it may take a number of hours for specialised equipment to reach the community and in the case of Iwantja, the closest functioning airstrip is at Marla, which is 45 minutes drive away.

Iwantja has a fire truck which is kept within a locked compound. The heavy mineralisation of the local water makes it necessary for the tanker to be kept empty and filled when required.



*Water tanker filling point*



*The Iwantja fire truck*

### 8.2 Access

Road reliability and travel safety is a key concern for those living at the communities. Poor road conditions contribute to isolation and in turn safety and sustainability. Improving the standard of access roads to Iwantja and the other communities on the Lands is the primary means to help reduce the impact of isolation. This requires the provision of adequate road funding.

Roads should be planned and designed consistent with accepted engineering standards. Apart from regular grading maintenance, few roads are upgraded to a higher standard of vertical and horizontal alignment, width and base course.

Signage should be established for the streets and to indicate the location of community facilities.

### 8.3 Potential Hazards

Possible hazards and the impact they might have on people, houses, community buildings, services and the environment are set out over:

The Impact of Hazards on:	Hazards and What They Might Affect		
	Fire	Storms	Transport Accident
People	x	x	x
Houses	x	x	
Community Buildings	x	x	
Services	x	x	
Environment	x		

The Structure Plan integrates a number of initiatives and recognises existing measures that help reduce the impact of hazards and assists with the response to events should they occur. These measures include:

- A street pattern with a legible and permeable layout and which allows good access in the event of an emergency;
- Avoidance of areas for future development which have the potential to be affected by flooding;
- Location of the waste management area away from the community as a protection from fire and to protect the water catchment areas;
- Location of sewerage ponds away from the community and within a fenced compound to discourage unauthorised access and possible contamination of water catchment areas;
- Avoidance of any future housing within the buffer area of the effluent pumping station;
- The diesel generators to be retained as an emergency backup in the case of a breakdown with the future power connection to the Umuwa power station;
- Water bores located away from areas of development to protect the groundwater source catchment areas;
- Dust reduction initiatives including the proposed road sealing and increased landscaping; and
- A fire truck and overhead water tanker filling points exist in the community, however it is noted that the fire truck is in need of repairs. In the case of a major fire the community would be reliant on equipment based 50 km away in Marla;
- Good access to the Stuart Highway in the case of an emergency and for medical evacuation.





## **STRUCTURE PLAN**

### **1.0 STRATEGIC DIRECTION**

#### **1.1 Community Aspirations or Vision**

During the visits to Iwantja discussions were held with community members to develop the Community Structure Plan. It was explained that the Structure Plan makes provision for future development, making sure that buildings and activities are put in the right place so the people who live in the community can be safe and healthy.

It was explained that, although the Community Structure Plan is not a management plan and does not incorporate a financial program to undertake the desired improvements, it can assist the development of these strategies. The Plan relates primarily to future building and infrastructure works and will also assist with the consideration of measures for the ongoing sustainability for the community.

In addition to the views and aspirations of the community members, discussions were also held with the administrative staff, APY and AP services, government agencies and service providers regarding their existing and future programs to fund housing, facilities and infrastructure.

The types of issues raised included:

- Where should new houses go? Do we need different areas for different families?
- Where should we put noisy or smelly activities?
- Are the roads safe? Where do the trucks go?
- Where does the drinking water come from and how can we look after it?
- Is there flooding here?
- How should we look after visitors?
- Should there be more parks or meeting places?
- Are there 'no-go' areas?
- Are there places for young people and old people?

Responses to these matters were incorporated into the draft plans and were modified following further discussion with the stakeholders. The aspirations for the community were tempered by their knowledge that there are only modest amounts of funding available for development. In addition, budget timeframes set for the community are often short term and there are limited opportunities for community members to influence decisions on funding.

Concerns were raised about the living conditions and it is apparent that there is overcrowding within the existing housing and that much of the housing stock requires upgrading. Some additional housing sites can be found within the existing residential areas however areas for future housing expansion are required.

The community is well established as a centre for arts and crafts and produces an eclectic and vibrant mix of works which are highly regarded. While the art and craftwork are largely undertaken by the women it is proposed that more men will be encouraged to become involved in future.

#### **1.2 Strategic Direction**

It is anticipated that Iwantja will continue to grow with facilities improving in response to the local needs. Community members will maintain ties to the surrounding Country which holds their dreaming stories and is of great cultural significance to them.

The location of the community on the eastern edge of the Lands close to the Stuart Highway provides the potential for the expansion of commercial activities associated with the Iwantja Arts Centre. Consideration is currently being given to having a retail outlet at Marla to get wider exposure for the works being produced and to increase the income of the community members.

The connection of Iwantja with other communities within the Anangu Pitjantjatjara Yankunytjatjara Lands will continue to be highly significant. In addition to cultural, family and sporting ties there are also issues associated with the provision of services such as health, education, administration, infrastructure provision and business that will ensure a strong bond between Iwantja and the other communities on the APY Lands.

Reliance on various State and Federal agencies for funding and as a source of income and changes in policy approaches has led to uncertainty about the medium to longer term sustainability of the some of the communities in the APY Lands. These issues have an impact on population levels, service provision and the capacity of families to remain in the smaller remote communities. As such the structure plan needs to have the flexibility to accommodate a range of growth scenarios.

The lack of sustainability of the water supply is a serious constraint to the future expansion of Iwantja. As such, unless new water resources are identified, an increase in the population of the community is to be discouraged. Decisions on additional facilities at the community will need to take in consideration whether the development might encourage an increase in population.

## 2.0 FUTURE DEVELOPMENT

This section of the report describes the Structure Plan for Iwantja. The plan is included as **Figure 1** Iwantja Community Structure Plan.

### 2.1 Options Considered

The layout of the community that has been established provides a robust and functional framework for the existing dwellings and facilities. It also allows for the future expansion of the community to occur over time in a manner that provides a number of development options. Discussions with the community representatives have not indicated any desire to depart from the established layout of the community.

There have been no physical constraints identified that would necessitate the consideration of alternative sites for the community or would prevent the expansion of the community through incremental growth. This approach will also minimise the costs involved with the extension of infrastructure. Although there is a limit to the availability of elevated flat land the current supply will not place any constraints on the development of the community over the life of this plan.

A preference for some housing sites away from the established area of Iwantja was expressed. However the high cost of extending infrastructure, the need to fully utilise existing facilities and the relatively uncrowded existing housing areas makes it impractical to explore these options at this time. In addition there are a number of existing vacant serviced lots in different localities and options for future housing sites in discrete areas on the periphery of the community.

These issues also apply to the location of future community facilities. Sites that are centrally located will present less problems and lower costs for the extension of services and will be more accessible.

The compact layout of the community and permeable street pattern also has the benefit of encouraging people to walk rather than drive to neighbours' houses, the office, store and other facilities. A 400 metre or 5 minute walk catchment area is shown on the structure plan to assist with the consideration of the location of future facilities.

The Structure Plan provides for additional infill housing sites in a pattern and at a density which matches that of those already established. In the longer term, additional housing sites may be taken up on the sites of demolished older houses and in the abutting vacant areas to the south, east and west of the community.

It is intended that the additional housing sites would provide for a reduction in overcrowding in existing dwellings and for new dwellings to be built in more appropriate locations. However due to the lack of sustainability of water resources at the community it is not intended that any future additional housing would provide for an increase in the population of Iwantja.

### 2.2 The Structure Plan

The Structure Plan has been prepared from an assessment of the site's physical and environmental characteristics, existing infrastructure, regard for the population demographics and constraints (physical, servicing). These factors have guided the form of the plan.

## 2.3 Land Use Sites

The Plan allocates land use sites throughout the area of the community and provides for objectives for each use type and development guidelines to help in the control of the scale and location of buildings on each site.

The Plan identifies preferred locations for land uses. Land use sites include:

- Housing
- Community Purposes
- Commercial
- Industry/Utilities
- Parkland/Recreation/Rural

Where an alternative land use is proposed for a site the Community Council may proceed to consider the suitability of the use taking into account the Planning Objectives and Development Guidelines for land uses set out in the Background Report.

## 2.4 Buffers

The Structure Plan contains buffers as a means of providing separation from incompatible uses or from those that generate noise, smells or other emissions. The buffers also provide protection for sensitive uses or facilities. The following land use buffers are identified in the Plan.

The existing power station located on the south side of the community has a buffer of 200m. It is proposed that the new generator located at Umuwa will supply power to the community within the next 12 months.

The effluent pump station has a 200 metre buffer. The pump station has been known to break down at times which results in raw sewerage overflowing into this area; this is a health hazard and creates an unpleasant living environment. It is noted that the aged person's accommodation and a single dwelling are located within the buffer area; it is recommended that no further housing be located within the buffer area.

The area in the vicinity of the creek approximately 200 metres north of the community is, based on anecdotal evidence, affected by flooding. It is recommended that no further development occurs in this area.

Development within the sloping ground surrounding the community would entail additional costs in the provision of infrastructure and in the development of services and buildings. As such development is not recommended in these areas.

## 2.5 Street Network

The structure plan provides for a future extension of the road network to make additional house sites available. No major new roads are proposed. The existing grid layout lends itself to an extension of the current semi formal layout. Additional roads in future can be accommodated as extensions to the existing network. It is intended that the roads within the community will be sealed.

## 2.6 Housing Areas

The under-provision of housing is a common problem throughout the lands. While the structure plan does not provide access to funds it does identify future development areas which are acceptable to the community where housing can be established in the most cost effective manner.

Funding is currently available for five new houses to be built. There are approximately 12 existing vacant serviced sites scattered throughout the community which provide a number of options for locating the housing.

In addition there are areas suitable for housing which could accommodate at least 16 future dwellings on relatively level sites to which services could be extended to the east, west and south of the community.

A need has been expressed for additional aged person's housing. The current site contains accommodation and cooking facilities however it is poorly located at the bottom of a hill making it difficult for the Elders to walk to the shop, health clinic and other facilities. It is also located within an area that is potentially exposed to flooding. It is recommended that future aged person housing be located on one of the available sites within the elevated area of the community.

## **2.7 Community Purpose Sites**

The Community Purpose sites on the structure plan, which include the administration building, store, school, church, arts centre and police facility are capable of being upgraded or expanded as demand arises and funding becomes available.

No significant changes are proposed for these facilities. At the arts centre a child care centre is to be built at the rear of the building and a shade structure is proposed for the school basketball courts.

It is not proposed that the existing derelict church building would be replaced with another similar structure however the community has expressed a desire for the existing open air structure to be improved. It has been suggested that a future indoor recreation centre could be used for church services.

## **2.8 Parks and Recreation**

The community has identified a need and reserved a site for an indoor recreation centre. The building is to accommodate indoor basketball, other sports and community meetings and is to be built between the store and the school. A source of funding for the building has yet to be identified.

The existing small youth centre on the western edge of the community is currently being refurbished to accommodate a gym, toilets and other recreation facilities for young people. It is also proposed that cooking facilities will be provided here for children.

Community members have already initiated a successful tree planting program which has provided shade and some protection from winds. This will be continued in future.

## **2.9 Visitor Camping**

The current housing situation has resulted in some visitors and residents camping out in the bush to the south east of the community, it is anticipated that even with the new houses being provided, some people will continue to camp in this area. It is proposed that ablution facilities and power will be extended to this area to help improve the conditions of those living here.

There are no formal camping areas designated for short term visitors attending sporting and cultural events. It is proposed that ablution facilities would be provided between the football oval and the access road into the community to assist with the accommodation of those attending sporting events and other short stay visitors.

## 2.10 Light Industry

At this time there are no commercial activities of this nature in operation at the community. There is a workshop and compound adjacent to the power generator building which houses CDEP equipment. The potential exists for the existing activities to be expanded over time.

## 2.11 Waste Management

It is not proposed that the waste management area which is located approximately 1.5 km east of the community would be redeveloped. The facility has the capacity to accommodate the waste disposal needs of the current and future population however attention is required to ensure that the waste is contained at the site through regular infilling.

## 2.12 Agriculture

A vegetable/market garden is proposed for the site of the old football oval a few hundred metres to the south of the community. However the lack of sustainability of the water resources at the community may present a significant constraint to the development of agricultural activities at Iwantja. It is proposed that lucerne pastures will be established in the area to the south east of the aerodrome utilising water from the sewerage ponds, the feasibility of this activity is currently being explored.

## 2.13 Development Issues

Issue	Response	Upgrading Proposals
There is a need for additional housing.	Limited funding for new housing. It is anticipated that the demand for housing will continue to grow. Lack of sustainability of water resources constrains population expansion.	Some existing housing stock requires upgrading / replacement.  Five additional houses have been funded.
Limited recreation facilities.	Funding is available for some improvements.	The youth centre is being upgraded and refurbished.  A new indoor recreation centre is proposed.
Dust generation from unsealed roads.  Additional landscaping required.  Noise from generator.	Sealing of the roads.  Limited funding for works.  Limited capacity exists to modify the existing facility.	Investigations are currently underway regarding the sealing of the roads.  Continuation of the landscaping program is proposed.  Power to be sourced from Umuwa within the next twelve months.
Need for additional community facilities.	Lack of facilities in the visitors camping areas.	Provision for camping ablution facilities near the football oval.  Ablution and power proposed for long term camping area.
Commercial facilities.	Potential to increase the exposure and expand the operations of the Iwantja Arts Centre.	A retail outlet for the Centre is proposed for Marla.

## **2.14 Service Upgrades**

### **2.14.1 Water**

Any new development should take into account the limitations of the water supply. No new bore sites have been identified; resulting in an unknown future water capacity. With regards to the infrastructure, potential house sites were identified at the southern end of the community near Mt Chandler Drive. These sites are served by a ring main; however individual house connections would be required. In this case, all new water mains should be installed by SA Water in accordance with the SA Water 'Water Supply Construction Manual'. Standard offsets to lot boundaries should follow the alignments nominated in the manual wherever practicable.

### **2.14.2 Sewerage**

The ponds are fairly full. If future development is planned, a detailed look at the capacity of the ponds would be required or perhaps investigation of a managed scheme to reuse the treated sewage. The potential house sites to the south of the community could be serviced by the existing reticulation system as they are located on the way to the sewage ponds, and thus the reticulation system would be fairly deep at this stage. The capacity would need to be examined in more detail. Should there be any new installation of sewerage services, these should be done by SA Water in accordance with the SA Water 'Sewer Construction Manual'.

### **2.14.3 Power**

ETSA maintain the electricity reticulation system and keep a record of power outages and power use. It was indicated that there was capacity for further use in the current system and in the future supply coming from the central power station at Umuwa.

## **2.15 Development Priorities**

It has been possible to gauge some of the Community's objectives, special needs and requirements through discussions with Iwantja Community Council, the Chairman, and the Municipal Services Officer. It should be noted that it will be essential to upgrade infrastructure prior to any new housing or community facilities being developed.

### **Immediate Priorities (0 – 1 years)**

- Generator to be replaced with power from Umuwa.
- Ablution and power facilities to be established for residents camping area.
- Youth centre to be refurbished.
- Landscaping works to be continued.
- Vegetable / market garden to be established however water constraints will need to be addressed in the planning of the area.

### **Medium Term Priorities (1 – 3 years)**

- Five additional houses to be developed.
- Roads within the community to be sealed.
- Indoor recreation centre to be established.
- Child care centre adjoining the Arts Centre to be provided.
- Upgrading of housing stock.
- Camping ablution facilities for short stay visitors.

### **Long Term Priorities (3 – 5 years)**

- Upgrading of infrastructure as required.
- Additional housing as required.

## 3.0 POLICY AND ADMINISTRATIVE CONTEXT

### 3.1 Strategic and Statutory Planning Context

In South Australia, there are over 100 Aboriginal communities, many of which are located on land vested in the Anangu Pitjantjatjara Yankunytjatjara under the Pitjantjatjara Land Rights Act 1981. These communities are outside local government areas planning controls.

The Development Act 1993 provides an assessment process for planning and building throughout the state. It also provides for development plans at a regional and Council level, against which development applications are assessed.

In the case of communities outside local government areas, the Development Assessment Commission must approve any development or building work. The Development Assessment Commission receives development applications from a range of sources associated with Aboriginal communities, including the Office for Aboriginal Housing and contractors. It involves the owners of the land to ensure building plans have the agreement of the relevant community.

### 3.2 Land Not Within a Council Area (Far North) Development Plan

The Iwantja community is located within the Land Not Within a Council Area (Far North) Development Plan Area. The following policies for Far North South Australia apply across the area.

#### 3.2.1 Form of Development

**Objective 2:** Protection of the environment and minimization of conflict between recreation, tourism and other uses of land.

**Objective 4:** The economic, social, and cultural interests of the Aboriginal communities safeguarded.

Outside of mining, administrative and service centres, Aboriginal people with traditional ties to the land make up the majority of the population. Provision needs to be made to improve the economic resource base for Aboriginal communities and to protect their culture and heritage.

Development should, whenever appropriate, make special provision to improve the balance and stability of the population and to improve the cultural and economic prospects of affected communities. This will require that all communities and in particular Aboriginal communities, be consulted on all developments which would significantly affect their livelihood, lifestyle or traditional interest in the land. When assessing proposed developments emphasis must be placed on the social impacts as well as other environmental impacts.

**Objective 5:** Industrial, commercial, tourist and residential development restricted to recognised settlements, so that such development can be efficiently provided with services and interference with pastoral, mining and conservation interests is minimized.

**Objective 6:** Development which meets adequate standards for public safety, convenience, economy and amenity.

**Objective 7:** The coordinated provision of roads, public facilities and services in a manner which optimises the use of resources and public funds.



The development of community facilities at new settlements in proximity to existing settlements should be integrated to achieve the best use of resources. As the provision of services, such as electricity, water, sewerage and roads, is very expensive in remote areas, design guides and other means should be used to encourage development which makes the optimum use of available resources.

### 3.2.2 **Waste Disposal (Landfill)**

**Objective 8:** The orderly and economic development of landfill facilities in appropriate locations.

**Objective 9:** Minimization of environmental impacts from the location, operation, closure and post management of landfill facilities.

### 3.2.3 **Conservation**

**Objective 11:** The identification and management of areas of heritage value or special environmental significance.

The Far North contains many areas, sites and structures which are worthy of preservation. These range from specific localised items, of geological, palaeontological, cultural, archaeological or historical importance, to large areas of sacred, scenic, wilderness, habitat, or other special environmental significance. Because of the vastness and remoteness of the area, many have yet to be identified. Land and development should be managed in a manner which protects the heritage and environmental significance of these items in the long term.

**Objective 12:** The retention of environmentally-significant areas of native vegetation.

**Objective 13:** The retention of native vegetation where clearance is likely to lead to problems of soil erosion, soil slip and soil salinisation, flooding or a deterioration in the quality of surface waters.

**Objective 14:** The retention of native vegetation for amenity purposes, for livestock shade and shelter and for the movement of native wildlife.

### 3.2.4 **Telecommunications Facilities**

**Objective 18:** Telecommunications facilities provided to meet the needs of the community.

**Objective 19:** Telecommunications facilities located and designed to minimise visual impact on the amenity of the local environment.

Telecommunications facilities are an essential infrastructure required to meet the rapidly increasing community demand for communications technologies. To meet this demand there will be a need for new telecommunications facilities to be constructed.

### 3.2.5 **Renewable Energy**

**Objective 23:** The development of renewable energy facilities, such as wind and biomass energy facilities, in appropriate locations.

**Objective 24:** Renewable energy facilities located, sited, designed and operated to avoid or minimise adverse impacts and maximise positive impacts on the environment, local community and the State.

### 3.3 **Anangu Pitjantjatjara Water Management Plan, May 2002**

The Arid Area Catchment Water Management Board has responsibility for 103,000 km<sup>2</sup> that accommodate several large Aboriginal communities. The area is home to a combined population of approximately 2,650 people living in communities within the APY Lands.

The goals of the AP Water Management Plan include:

- Improve knowledge of groundwater resources and implement practices that will sustain groundwater resources.
- Maintain and improve groundwater quality.
- A management recommendation for the purpose of implementing management practices that will maintain the pristine condition of watercourses and surface water.
- Plans for improving community awareness regarding best water management practices.

The Plan makes recommendations for watercourse and surface water management and rehabilitation. It does not contain any specific proposals for Iwantja.

### 3.4 **Natural Resource Management Plan**

The Australian and the South Australian Governments are working together to manage and improve the state's natural resources. The Federal Government Departments of Agriculture, Fisheries and Forestry and the Environment and Heritage jointly administer the Natural Resource Management plan. The Aboriginal Lands Integrated Natural Resource Management Regional Group has been given responsibility for developing and implementing, in consultation with local communities, the Aboriginal Lands Regional Plan for South Australia.

The plan is based on a 'whole of region' approach and addresses significant natural resource management issues incorporating social, environmental and economic problems.

Activities to be undertaken include:

- reducing water pollution and maintaining adequate water supplies;
- cleaning and protecting rock holes for biodiversity and cultural values;
- developing a dust mitigation program for at-risk areas, including revegetation with local native vegetation and stock management;
- developing biodiversity management plans for the Anangu Pitjantjatjara Yankunytjatjara Lands.
- monitoring for native and introduced plants and animals and supporting integrated control of weeds and ferals;
- implementing patch burning for wildfire control and associated benefits.

Some planning has occurred in the Anangu Pitjantjatjara Yankunytjatjara Lands, which has helped to identify priorities for future investments and will provide a guide to similar planning elsewhere in the region to determine how to deliver programs and projects that satisfy the criteria for Natural Heritage Trust funding.

Finalisation of these plans will allow funds to flow to enhance environmental and natural resource standards in the region. The Aboriginal Lands region is therefore well placed to take advantage of these government programs to 2007-08.

## **4.0 IWANTJA COMMUNITY STRUCTURE PLAN - PLANNING OBJECTIVES**

### **4.1 Form of Development**

1. Development should form a compact extension of the Iwantja community.
2. Development should not cause undue nuisance, lead to a deterioration in health and living standards nor adversely impact on the environment including the impact on ground water.

### **4.2 Integrated Risk Management**

The approach to the land use planning of the community is to improve risk reduction while addressing requirements for community safety and sustainability. Specific objectives are:

1. Development is to be avoided in areas of high risk;
2. Development should not result in people having an increased exposure to potential risks;
3. Interference with natural processes is to be minimised in order to reduce risk;
4. Incompatible uses are to be separated;
5. Sensitive land uses and facilities are to be provided with adequate buffers;
6. Buffers are to be identified around activities which expose the community to risk;
7. New development is to incorporate design measures to facilitate a rapid response in an emergency situation.

### **4.3 Housing Areas**

The objectives for the land in the housing area are:

1. To provide relatively unconstrained land while avoiding culturally sensitive locations;
2. To provide housing areas convenient to central facilities and amenities;
3. To ensure that the design of the housing areas provides for privacy, security and an attractive setting;
4. To provide housing areas with appropriate access to power, water, communications and roads;
5. To provide housing areas where there is minimal disturbance from noise and incompatible activities;
6. To protect the housing areas from incompatible development;
7. To provide for the safety of pedestrians in the design of housing areas.

### **4.4 Community Activity Areas**

The objectives for the land in the community activity areas are:

1. To set aside sites for community uses including civic and cultural activities;
2. To provide an appropriate location for special activity centres, meeting areas and special interest group activities;
3. To provide for educational or training facilities;
4. To provide an area where visitors from places other than the community can stay for a short time.

### **4.5 Commercial Activity Areas**

The objectives for the land to be used for commercial purposes are:

1. To set aside sites for commercial uses including retail and business activities;
2. To ensure that sufficient land is available for vehicle access and parking;
3. To provide for areas for people to gather before or after visiting the commercial facilities.

#### **4.6 Utilities/Industry**

The objectives for the land to be used for Utilities / Industry are:

1. To provide secure and strategic locations for utilities and industry;
2. To ensure that enough land is allocated to provide for major servicing utilities such as water and power;
3. To select sites that are convenient to service and safeguard, but far enough away not to be a nuisance to living areas;
4. To ensure that major underground services are protected and not be built over.

#### **4.7 Parks/Recreation/Rural**

The objectives for land in the Parks and Recreation area are:

1. To provide areas where people can play sport safely;
2. Landscape protection;
3. To assist in the control of dust;
4. To set aside areas for informal and passive uses (sitting, walking, talking);
5. To make sure land areas are set aside in the proper location for major recreation uses;
6. To make sure that adequate and appropriate land is set aside for formal and active recreation.

#### **4.8 Storm Water Management**

Storm water management should address the following:

1. Stormwater from properties within the catchment area should be collected and used within the locality of the catchment;
2. Stormwater from the area surrounding the community should be managed through the use of ponding banks to avoid large volumes of storm water channelling through the community;
3. The flow of stormwater from hard surfaces within the community should be interrupted by changing the ground profile to arrest the flow and assist with the absorption of stormwater.

#### **4.9 Waste Management**

The objectives for waste management are:

1. The development and provision of waste collection systems and disposal sites which are safe, environmentally sound and aesthetically acceptable, to ensure that the waste from public and private utilities is effectively managed.

## **5.0 IWANTJA COMMUNITY STRUCTURE PLAN – DEVELOPMENT GUIDELINES**

### **5.1 Integrated Risk Management**

1. Development is to be avoided in the area to the north of the community where flooding has been known to occur after heavy rains.
2. Further development is to be avoided in the buffer area to the effluent pump station which can expose residents to health risks.
3. Until the Iwantja is connected to the Umuwa power station the development of housing should be avoided within the buffer area around the current power station.
4. Future subdivision design is to facilitate access of emergency vehicles by incorporating interconnected roads and a permeable street pattern.

### **5.2 House Sites**

1. House sites should be of a sufficient size to meet the family, cultural and environmental needs. As a guide a minimum of 1,000 square metres should be provided for each house site.
2. All houses must comply with the Performance Provisions set out in the Building Code of Australia (BCA), and must additionally take into account the special conditions associated with the provision of housing for Indigenous people, particularly in rural and remote areas. The National Indigenous Housing Guide provides the underlying principles and guidelines for housing standards to be achieved.
3. Housing design solutions are to be culturally and climatically appropriate, are to address environmental health concerns, and are to incorporate robust, durable, low maintenance materials, services, fixtures and fittings suitable for remote areas

### **5.3 Siting of Buildings on House Sites**

1. Front building setback distances should be staggered where desirable, but should not be less than 6.0 metres from the front (street) or rear boundary.
2. Residences should be located to take best advantage of prevailing cool breezes. Where possible residences should be orientated to overlook community and recreation facilities.
3. Preservation of existing trees is important and house siting can be varied to suit the location of trees.
4. Shade trees should be planted to the west first, then east and north as funds permit.
5. Rainwater tanks should be provided for each dwelling and community building to reduce the impact of stormwater in the catchment area and provide irrigation to shade trees.

### **5.4 Infrastructure Service Corridors**

1. Where possible new underground infrastructure should be laid parallel to existing services. This will maximise the usable area for houses and community facilities and help avoid future disturbance to the services.

## **5.5 Stormwater Management**

1. To avoid large volumes of stormwater from collecting within the road network sufficient land should be set aside for harvesting stormwater from roads at regular intervals.
2. Road verges should be between 5 to 10 metres in width. They should be designed to accommodate the construction of ponding banks and mounds to manage and reduce the amount of stormwater that would otherwise flow into the road system.
3. Sports ovals and other sporting facilities such as basketball courts and adjoining roads and parking areas can provide an opportunity for water harvesting and to utilise captured stormwater. The water can also be used to irrigate shade trees planted in the vicinity of the sports facilities.

## **5.6 Landscaping**

1. Landscaping includes the planting and maintenance of trees, shrubs and grass and may also include street furniture, barriers and equipment. Existing trees should be preserved and maintained for shade and screening purposes.
2. Where possible local flora should be used in landscaping programmes.
3. Landscaping also provides shade, helps to reduce dust, assists in the control of vehicle movements and creates a more attractive living environment.
4. Wind breaks should be established for protection against cold winter winds and hot, dusty summer winds.
5. Stormwater collected from roofs and overflow should be used in the maintenance of landscaped areas.

## **5.7 Fences**

1. All residences shall be fenced along the front, side and rear and shall be to the full perimeter of the lot. No front fences shall be higher than 1.2 metres, unless otherwise approved by the Community Council.

## **5.8 Waste Management**

1. It is necessary to alleviate the potential for disease and nuisance (e.g. by reduced rat harbourage and other vectors of disease) by having an efficient refuse collection system, as well as a disposal site that is orderly, controlled, and one that encourages use.
2. Supplementing collective refuse disposal facilities by waste reduction practices, such as recycling and composting, is encouraged. Waste from large construction projects also needs to be removed and disposed of in acceptable manner, away from the site and at an agreed location, rather than disposed of in the local refuse disposal facility.

## **6.0 IMPLEMENTATION AND REVIEW OF THE STRUCTURE PLAN**

The Iwantja Community Structure Plan will be used as a guide to future development and to ensure orderly and proper planning. It will assist the community council, APY and Planning SA when they consider future development proposals for housing, community services and facilities, essential services and road works.

### **6.1 Application Requirements for Development**

Development is not to be carried out on the APY Lands within the areas covered by the Structure Plans until a development application is lodged with the Development Assessment Commission (DAC) relevant fees paid and consent approval is obtained.

Development includes building work, land use changes and subdivision. All development requires Development Plan Consent, buildings and structures also require Building Rules consent.

The DAC considers APY approval advice prior to issuing Development Plan Consent.

Bodies proposing development (including government agencies and service providers) are to put forward a development proposal with relevant documentation to APY. Proposals should be consistent with the current Structure Plan for the Community and APY policies regarding development.

The APY Land Council shall examine the suitability of the proposal based on the objectives applicable to each use as shown on the Structure Plan and in the development guidelines and consult with its members, Community Councils and Traditional Owners, to ascertain their support. APY may request more information where it considers the application is not adequate for its members to arrive at a view.

APY will inform the applicant and the DAC in writing whether or not it supports the proposed application. The DAC will assess the application and may grant Development Plan Consent.

### **6.2 Changes to the Structure Plan**


A proposed change to the Community Structure Plan, is to be prepared in a form that can be copied and circulated throughout the Community in such a way as to clearly show the changes. The revised plan should show the existing situation and how the Community Structure Plan will look with the changes.

From the time the proposed revised plan has been circulated, the Community Council shall not make a decision for at least one month. This time is to let community members tell the elected Community Council members about any concerns that they might have for further discussion and consideration at the Council meeting.

Following approval of the Amendment and endorsement by the Community Council, the Amendment shall be submitted to the APY Executive for its endorsement.

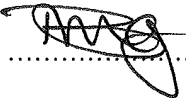
**ENDORSEMENT**

The **Iwantja Community Council** hereby endorses the Iwantja Community Structure Plan No. 1 dated February..... 2008 (including the Report, the Plan and the Provisions), for the purpose of ensuring the proper and orderly planning of the community area, at the meeting of the Council held on the 24th..... day of October..... 2008



Chairperson

The **APY Executive** hereby endorses the Community Structure Plan No. 1 dated February..... 2008 (including the Report, the Plan and the Provisions), for the purpose of ensuring the proper and orderly planning of the community area, at the meeting of the Council held on the 9th..... day of April..... 2008



Chairperson



General Manager

24-10-2008



## BIBLIOGRAPHY

Anangu Pitjantjatjara Services (2001) Community Planning Report – Iwantja.

Australian Bureau of Statistics (2002). Census Data.

Bureau of Meteorology, Available: <http://www.bom.gov.au/weather/wa/giles/climate.shtml>

Commonwealth Bureau of Meteorology (2007). Climatic Averages for Marla.

Costar A., & Sampson L., (2006) Interim Report on Monitoring of Groundwater Bores in Aboriginal Lands, South Australia.

Davies, A, Harris, R, Kalotas, A, Tregenza, J, (2002) Anangu Pitjantjatjara Water Management Plan (draft.)

Department of Family and Community Services, (2003) National Indigenous Housing Design and Construction Guidelines (Second Edition). Commonwealth, State and Territory Ministers' Working Group on Indigenous Housing, Canberra.

Department of Health (2006) Code of Practice for Housing and Infrastructure in Western Australian Indigenous Communities.

Dodds, A.R., Hostetler, S., & Jacobson, G., (2001) Community Water Supplies in the Anangu Pitjantjatjara Land, South Australia.

South Australian Year Book, (1997) special article Aboriginal Lands in South Australia.



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## **APPENDIX 1**

### **Consultation Process**

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## **APPENDIX 1**

### **CONSULTATION PROCESS**

#### **PREPARATION OF THE COMMUNITY STRUCTURE PLAN**

The format and process undertaken in the preparation of this structure plan has included the consultation detailed below.

##### **Stage 1 – Stakeholder Consultation and Background Research**

- Stakeholders identified and consulted for issues and advice, including:
  - Department of Family and Community Services (DFCS)
  - Department of the Premier and Cabinet  
Aboriginal Affairs & Reconciliation Division (DPC-AARD)
  - Office for Aboriginal Housing (OHA)
  - Planning SA (PSA)
  - Anangu Pitjantjatjara Yankunytjatjara (APY)
  - APY Lands Community Councils
  - Anangu Pitjantjatjara Services (AP Services)
  - Nganampa Health
- Background research of the community and review of strategic plans and previous studies.
- Detailed site inspections of the community by the town planners and civil engineers to determine the condition of existing infrastructure and assess constraints and opportunities for development.

##### **Stage 2 – Initial Community Consultation**

Initial visit to the community was undertaken on 21 November 2006 by J Meggitt. The objective was to set out the aims of the project and the process of preparing the Community Structure Plan.

The Community Chairman Max Kenny and the MSO Peter Hillier were introduced to the project. The Municipal Services officer Margaret Jacobson was away for this visit. We explained the purpose of Community Structure Plan and the methodology. Few residents were present as most were attending a cultural event however the Chairman highlighted the need for additional housing. An inspection of community and infrastructure facilities was carried out.

##### **Stage 3 – Community Visit 2**

Visited Iwantja on 20 February 2007 with Virginia James, civil engineer from Arup Consulting. Prior to our visit copies of the preliminary draft structure plan were forwarded to the community for consideration. We met Margaret Jacobson, the MSO. The following future projects were identified in this discussion:

- Funding has been confirmed to continue and expand the landscaping works at the community;
- Five new houses have been confirmed for the community. The project is to be undertaken by AP Services. There will continue to be a need for further houses once these are built;
- The site of the old football oval to the south of the community is to be used for a market/vegetable garden to supply Iwantja and possibly other communities;
- In the past the community has expressed a desire for a swimming pool however this has been considered to be unfeasible due to uncertainty about the sustainability of the water supplies; and
- A lucerne production area is to be established to the north of the sewerage ponds.

A meeting was then held with the Community Council. Attending the meeting were Max Kenny (Council Chairman), Nicholas Coulthard (Vice Chairman) and Council members Kevin Baker, Peter Mungkari, Tony Baker, Clifford Ryan and Vicki Cullinan. The following issues were raised at the meeting:

- The areas identified in the preliminary draft concept plan for future housing were considered to be suitable for further investigation;
- There are no areas of cultural significance in the immediate area of the community;
- The need for additional housing was stressed with some households experiencing overcrowding where there was 15-18 people per house;
- A desire for some housing away from the existing established area of the community was identified;
- It was stated that the existing youth centre was being refurbished and that a toilet and kitchen would be built;
- There was a desire for a larger indoor recreation centre/ meeting hall however funding for this had yet to be found. A site had been identified adjacent to the store;
- Additional facilities are required at the aged persons' accommodation including an expanded dining room and a community room;
- To facilitate the commercial activities of the Iwantja Arts Centre it was proposed that a retail outlet would be established at Marla;
- To improve the amenity for the residents camping out to the south east of the community it was identified that ablution facilities, power and water would be provided; and
- The old derelict church is to be demolished. It was suggested that a new open air facility similar that built a Fregon( Kaltjiti) could be built at an appropriate location.

A meeting was then held with Ross Coleman the School principal. He confirmed that the school accommodated approximately 80 students and that there are no major improvements proposed for the school in the foreseeable future. A shade structure is proposed for the basketball courts. He indicated that it is anticipated a new dwelling would be required for the teacher at the TAFE facility.

### **Stage 4 – Community Visit 3**

The community was visited on 8 May 2007. A meeting was held with Max Kenny, chairman, and community members Tony Baker, Alex Baker, Maxine Stewart and Irene Dingamon, Margaret Jacobson the MSO was also in attendance.

The draft plan was discussed and the following matters were raised:

- In anticipation of the roads being sealed in the near future the plan should show the proposed location for future roads in the new housing areas.
- The aged person housing area is considered to be unsuitable due to its isolation and location at the bottom of a hill close to a potential flood area and effluent pump station. It was suggested that a future facility might be better located at the north western end of the community.
- The community was progressing with plans for an orchard and market garden. The fire truck was being refurbished for watering purposes. It was noted that water cannot be stored in the truck as the minerals in the water corrode the pump fittings.
- The community plans to put grass down at the football oval in the next few months.
- Plans are being considered to establish a concrete batching plant at the community with the intent of producing concrete pavers.
- A composting / mulching machine has been set up to utilise future lucerne production.

After the meeting we walked through the community examining future development areas with particular attention being paid to the housing site locations.

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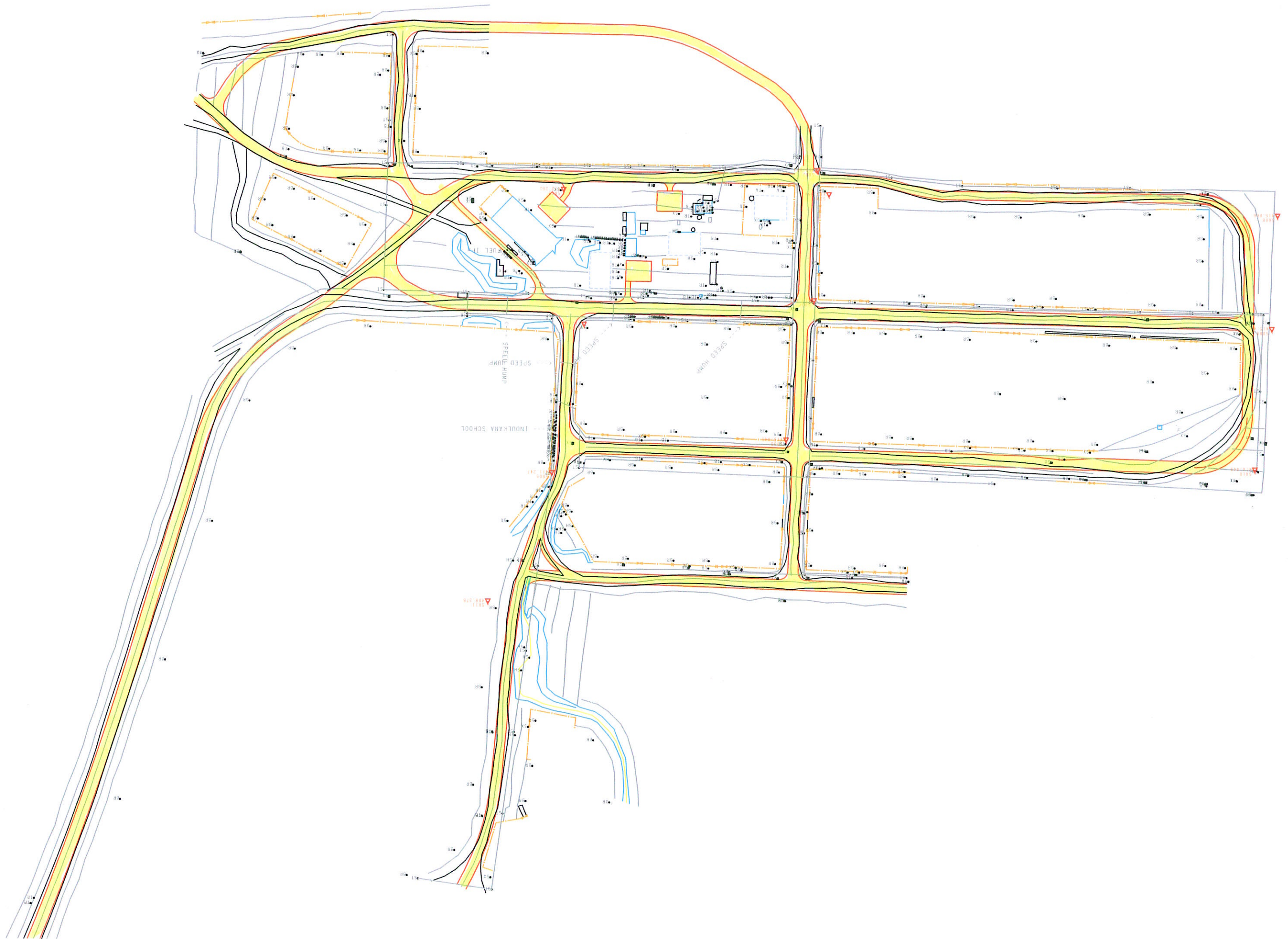
## **APPENDIX 2**

### **Road Layout**

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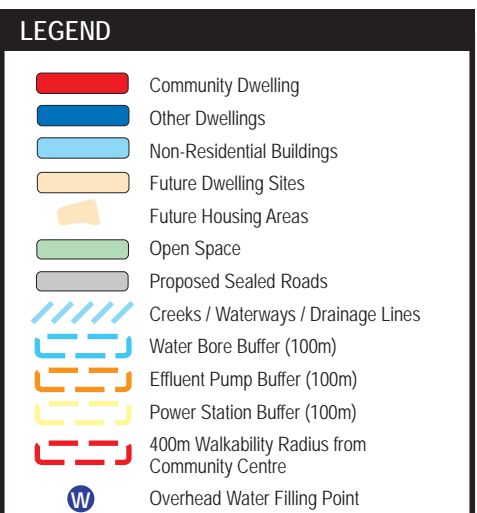
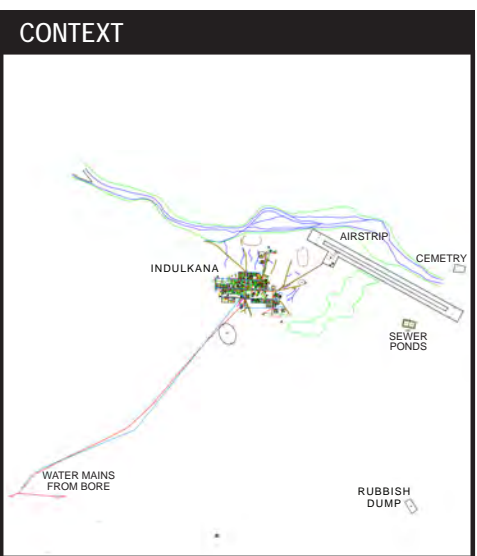
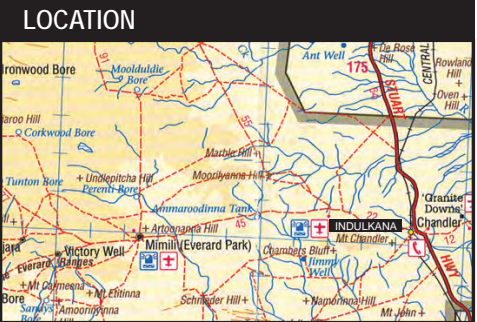
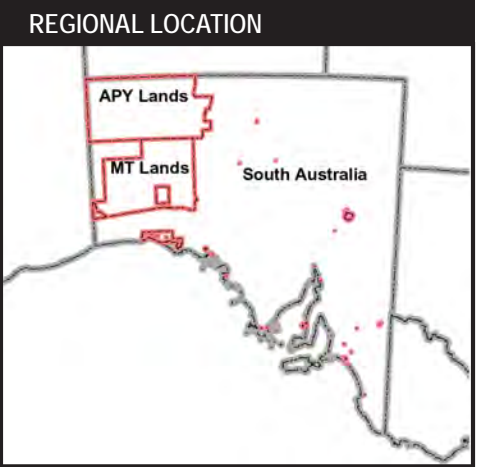






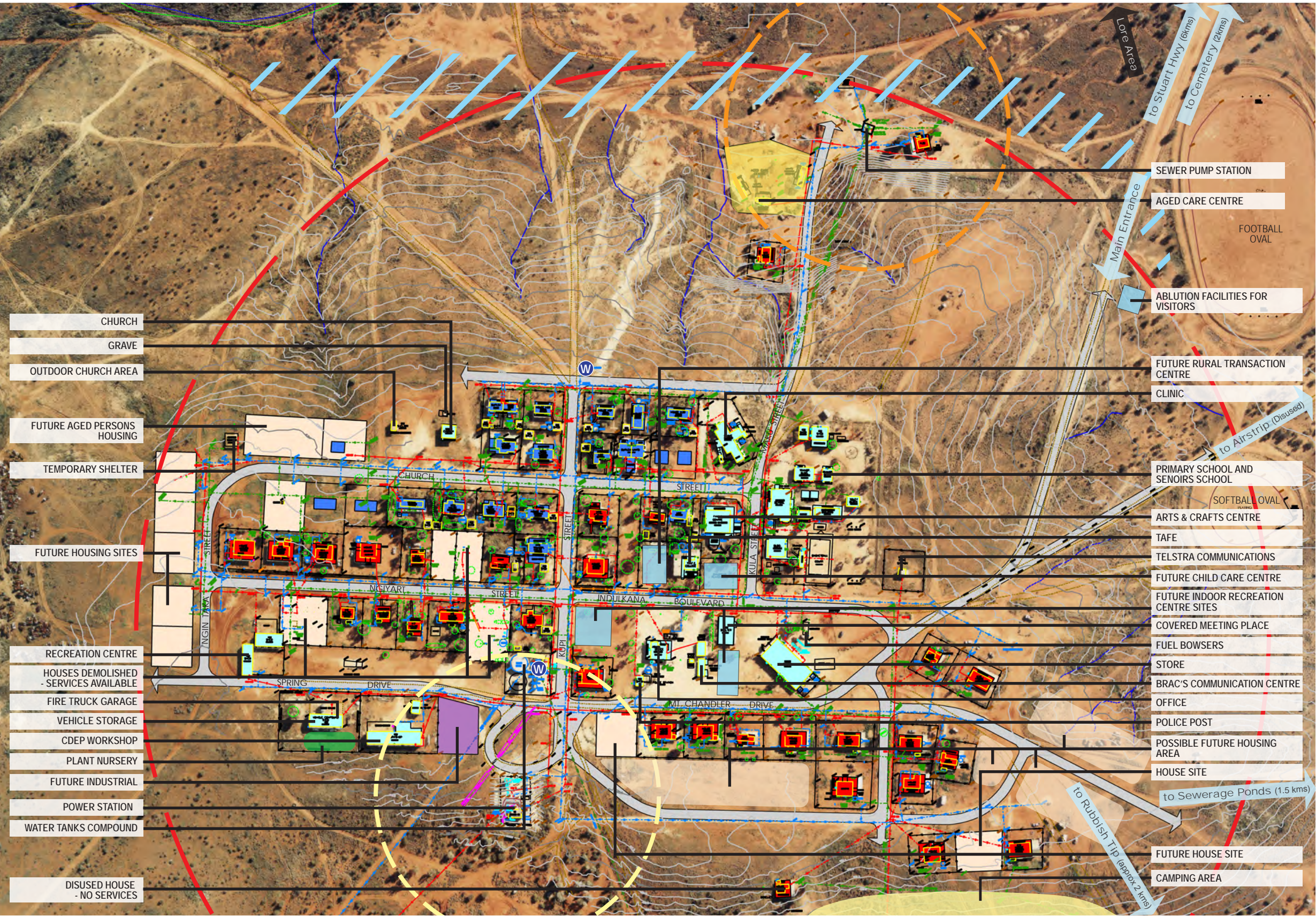






**Adoption:**  
Adopted by The Iwantja Community Council, held on 2007.

**Endorsement:**  
APY Executive hereby endorses The Iwantja Community Structure Plan No.1, dated 2007, as a guide for development to ensure proper and orderly planning within the community area.



# Iwantja (Indulkana) - APY Lands, S.A.

## COMMUNITY STRUCTURE PLAN No.1

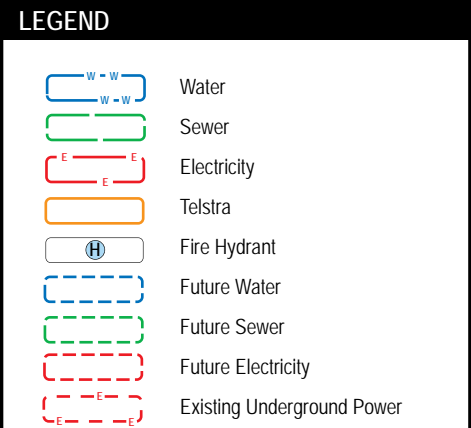
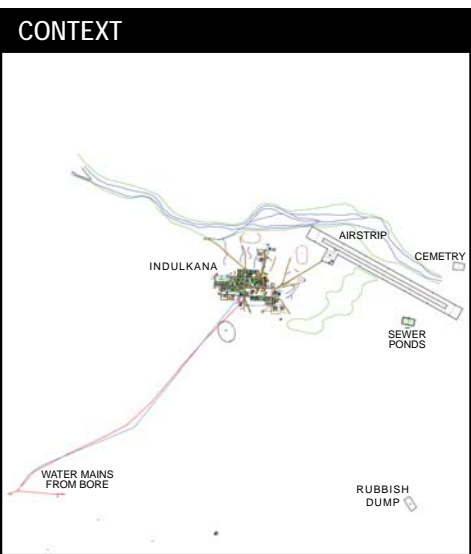
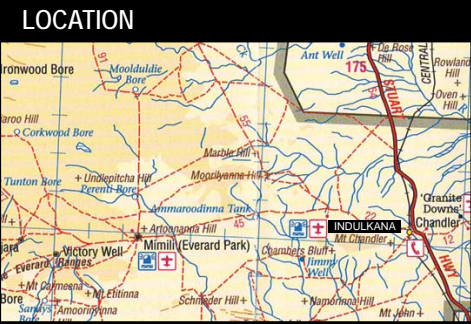
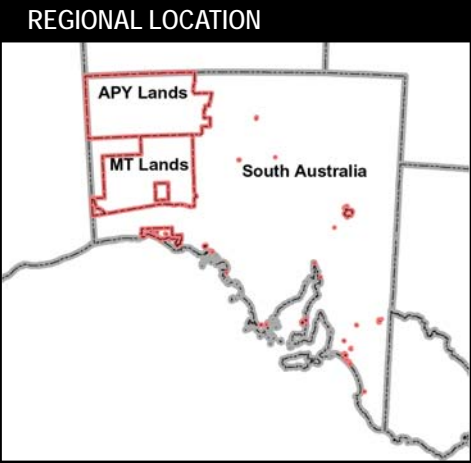
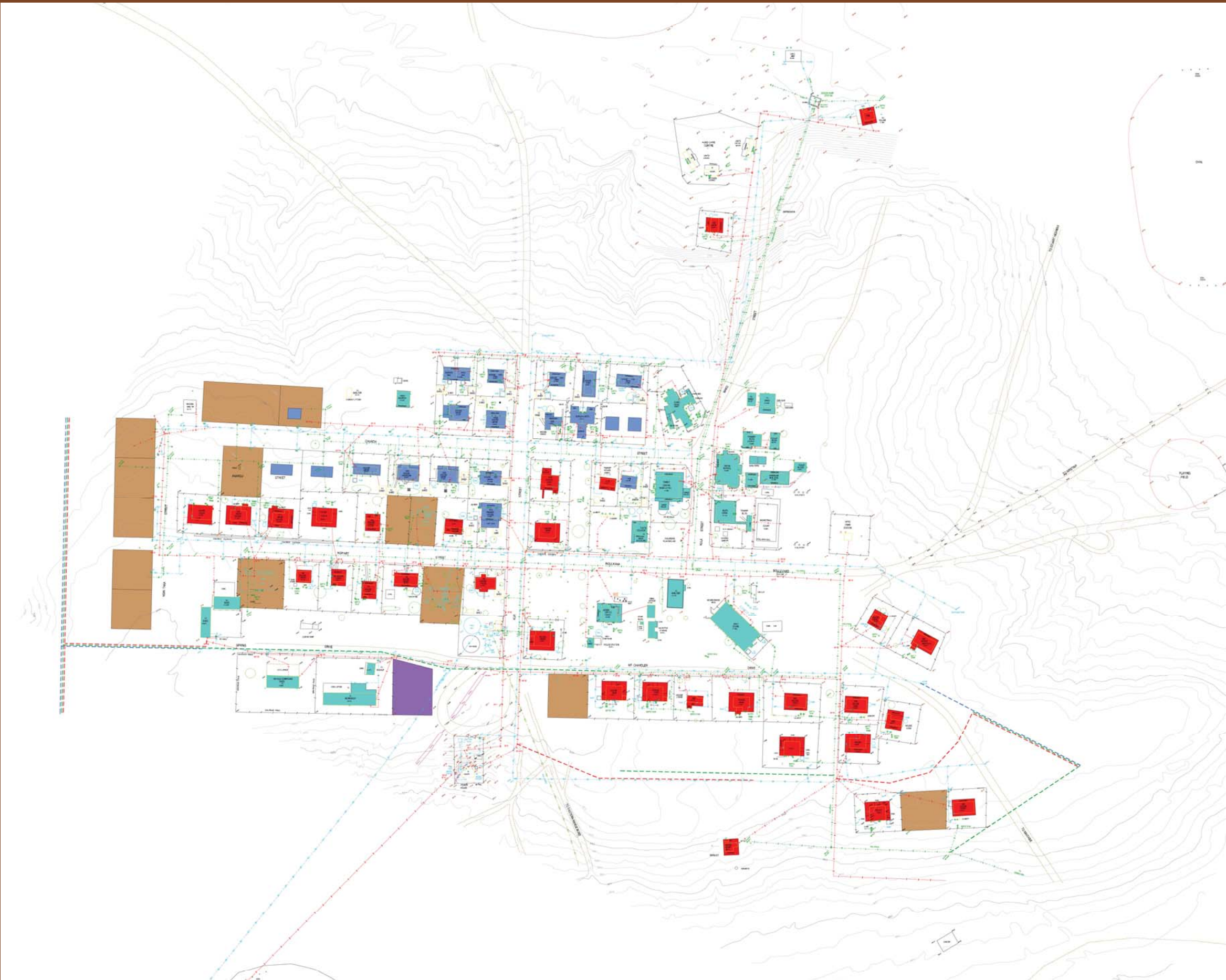


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d: 4 July 2007 | j: 05/019







Iwantja (Indulkana) - APY Lands, S.A.  
SERVICES PLAN



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