

Housing and Essential / Municipal Services

A Paper.

Introduction

This paper is in response to a South Australian [SA] State Government review of Essential, Municipal and Environmental Health Services on the Anangu Pitjantjatjara Yankunytjatjara [APY] Lands.

It attempts to detail a history of these services since 1985 and highlights some of the issues of significance.

Housing, infrastructure and associated service delivery are resources that are applied in a context influenced by the government policies, procedures and administrative requirements of the day. Experience has shown that these are ever changing and this constitutes an unstable environment for the long- term deployment of these programs.

Despite the many ‘needs assessments’ that have been carried out on the APY Lands, no government has ever been prepared to apply the resources, both capital and recurrent required to ensure that housing, infrastructure and services are adequate for the population.

There is no doubt that housing stock and health hardware function rates have increased and that access to clean potable water, effective waste water systems and electricity has improved. Internal roads in some communities and some airstrips have been sealed and telecommunications systems are in place.

These gains however have been incremental over 20 years and it could be argued that in a stable and well resourced funding and program environment the same gains could have been achieved in a much shorter timeframe.

Essential, Municipal and Environmental Health Services need to be delivered in a framework that includes the following elements :-

- * evidence based design and roll out of services , programmes and capital projects.
- * has a clearly defined focus and assessment methodology
- * an understanding of the value of quality control in containing the recurrent costs

- * recognises the need for adequate recurrent funding
- * has the relevant legislative regulatory regimes applied
- * views Anangu as having the primary vested interest

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The Uwankara Palyanku Kanyintjaku [UPK] Review carried out in 1985–87 focussed primarily on the relationship between the living environment and the health of the people.

Common terminology at the time included such notions about the need for less duplication and more ‘intersectoral, multifactoral’ cooperation and collaboration in the delivery of housing and infrastructure in remote communities. The review team took a broad frontal approach recognising that there were three levels of government involved :-

- Local - Community Councils
- Regional - Regional Indigenous controlled organisations
- External - Federal and State government agencies.

Interventions at all levels would be required if real change was to eventuate.

At the time there was a plethora of evidence suggesting that there were serious problems in the aboriginal living environment but no clear way to improve the situation. The UPK review attempted to define the details of the specific environmental conditions that gave rise to the ill health of the people.

The UPK Report [1987] described and quantified a physical environment that inhibited the practising of healthy life choices and indeed in some cases presented a safety risk.

The report initiated the process of identifying the specific health problems that were likely to be reduced by interventions in the living environment.

Anangu were aware of the link between their poor living conditions and their ill health but they lacked a focus for changing the situation and they had no detail about the problems in the living environment and the likely effects on their health.

The primary task of the UPK program established in 1989, was to work towards the realization of the recommendations of the Review, to maintain the focus and determine the details of those problems that persisted in the living environment and to work towards the resolution of those problems.

The APY Lands at that time were subject to unstable funding. Little was really known about the inherent cost in establishing housing and infrastructure in a remote environment for a population that had a limited economy and limited experience in interacting with this type of infrastructure. Even less was known about the design, construction / supervision and maintenance requirements and the ongoing monitoring / assessment that underpins peoples ability to make healthy life choices.

Funding and service provision responsibilities were in a developmental mode resulting in a multiplicity of agencies[up to 70] and a constant changing of State and Federal government departments, their policies and guidelines.

Land Rights had been granted in 1981 and Anangu were grappling with the implications and responsibilities of being a corporate body set up to manage the APY Lands and manage their own lives. They immediately faced a high management burden the result of Land Rights and the Policy of Self Determination /Management. [142 meetings held in Kaltjiti over a 3 month period 1986, 3000 permits issued in 1982]

Huge effort was taken to secure land rights however little effort had gone into planning for the resourcing requirements for a remote, impoverished indigenous population with limited educational and employment options and chronic ill health.

Despite this clear challenge Anangu pushed on with re-establishing their presence across the APY Lands. The Homelands movement was driving many of the agenda items as Anangu gained confidence in the knowledge that they now held title to 103,000 sq.km of land and that they could now return to country. Both Land Rights and the Homelands movement allowed for the development of a regional corporate identity that became the vehicle for regionalisation of some service provision.

The UPK review was launched in an administrative and management environment that was chaotic, lacked focus, planning and adequate resourcing. Crisis management rather than strategic/proactive

management was the norm with both Anangu and governments struggling to define what was needed and to match that with required resources.

Anangu Health

At the time of the review the infectious diseases were the overwhelming health problem for the children and a main contributor to the emerging chronic ill health of the adult population.

Acute respiratory infection

Diarrhoeal disease

Skin infection

Hepatitis B

Eye Infection

Infant mortality and morbidity

The population of the APY Lands was around 2,000 people however the high prevalence and high attack rate of disease required the health resources appropriate for a much larger population.

Anangu children were 80 times more likely to be admitted to hospital for severe pneumonia. They were also susceptible to failure to thrive the result of poor nutrition and the attack rate of infectious diseases.

Adults had a high prevalence of chronic illnesses, obesity.

Hyperlipidaemia, diabetes and vascular disease.

The generally accepted medical opinion at the time was that next significant advance in child health would be the reduction in the attack rate and consequently morbidity from these infectious diseases and that there was strong evidence to suggest this would only occur as a result of major improvements in environmental health.

Base UPK Survey findings

Total Anangu population	2000
Total houses	90
Population Housed	743
Over 50% not housed	
average 8.3 people/ house	
Hot Water- houses ok	45%
Cold water- houses ok	60%
Waste water- houses ok	45%
Electricity- houses ok	65%

“Real” population load however was probably as high as 16 / house which had implications when determining demand on health hardware facilities.

Water Supply was measured as the ability of the services to deliver water to the residents.

0-29% almost no water delivery major works required

30-49% water available to minor outlets only

59-69% water generally available but with poor control

70-90% minor control problems only

Waterborne waste disposal was the worst aspect of the living areas surveyed. System failure rate and the consequences of the failure were a constant threat to individual and public health. Whilst overall 45% of all houses had adequate wastewater facilities some communities were well below this average. Iwantja 31% of houses ok , Pukatja 35% of houses ok .

Electricity

A visual inspection only was conducted on the house power supplies. Overall the systems` appeared to be fair 65% of houses ok. However old fuse boxes, lighting, hot water units and stoves were common failure points.

There was no survey capacity at that time to assess the generation and transmission systems to see whether they complied with the relevant ASA standards and the State legislative/ regulatory requirements.

Descriptive information was provided [pg 60 – 63] eg Kalka – electricity Connections to buildings are a mixture of hard wiring and extension cords from caravan park style switch boxes.

Note. 20 years later the situation was finally rectified.

The Review found that on the whole the high failure rate of Health Hardware was the result of :-

Poor initial design

Subsequent poor construction and supervision of construction

Lack of maintenance funding and a targeted maintenance programme.

The Healthy Living Practices

In 1987 The UPK Report detailed nine prioritised healthy living practices [HLPs] and their necessary health hardware.

Washing people
Washing clothes and bedding
Removing waste safely
Improving nutrition- the ability to store prepare food
Reducing crowding
Separation of dogs and children
Reducing dust
Temperature control
Reduce trauma

The nine HLPs were developed as a response to the identified environmental inadequacies. They were and still are considered essential for wellbeing and are ranked in order of their likely importance in improving health status. They initially provided a focus for new capital infrastructure programmes/ projects and would later provide a focus for the housing maintenance programme.

They are not each stand alone items as one practice often influences others and a threshold level or critical mass effect needs to be achieved overall to maximise health benefit.

Management

Public Health is highly dependent on the planning, funding, installation , maintenance and utilisation of essential services and health hardware. The primary consideration in housing development should be the effective delivery of health hardware [the physical equipment necessary for healthy, hygienic living.] Critical for this to happen are mature administrative/management systems that have public health and Anangu well being as the primary focus. The Review found that where management failed whether at the external, regional or local level Anangu health suffered. At the time of the review there was limited regional service delivery. Umuwa had not been established and AP Services was yet to be developed. Community Councils were the main management body locally and a multiplicity of Federal and State agencies acting either as funding providers or service delivery agents made up those external bodies with a crucial role in management. The review discussed the critical role of management and made a series of recommendations in relation to management.

Many of these related to a regional application approach to the delivery of housing and essential services and as time progressed Umuwa was established and the Land Council was able to locate its office to the APY Lands followed by other Anangu controlled regional organisations. . AP Services grew out of the early AP Roads programme and was simply seen as the operational arm of APY.

A major recommendation of the review was that APY be given the resources to develop a Plan of Management for the APY Lands. Sadly this was not followed through and as a result the AP and AP Services often had to engage in reactive and crisis management rather than proactive strategic management.

Currently there are still arguments about the role of the Land Council and APY Services and this simply demonstrates that an issue does not go away until it is dealt with in an adequate and appropriate manner.

Nganampa Health Council Public Health Unit

Nganampa Health Council [NHC] was funded to set up a regional public health unit in 1989 to initially comprise of one person though a year or so later funds were provided for an Anangu public health officer.

The role of the Public Health Unit was to engage in those activities aimed at securing the physical environment within which people could make healthy life choices. The task was to work with Anangu and all relevant agencies to realise and implement the recommendations of the UPK Report. This meant having to address the shortcomings at all levels of management.

Funding

Design

Installation/construction

Maintenance

Management

Usage

Engaging with all levels of government, regional bodies, community councils and individuals and families was a key component of the overall strategy. On the one hand the unit could be advocating for a certain policy or programme in Adelaide or Canberra and on the other the Unit could be in a house with a toolbox and cleaning equipment.

The UPK program quickly developed an advocacy and monitoring role and with the ongoing support of an architect was also able to provide

substantial technical and practical inputs all aimed at increasing Anangu access to safe sustainable health hardware.

The UPK agenda and approach was developed out of a solid body of work and auspiced within NHC, an Anangu controlled organisation. Anangu were quick to realise that their wellbeing relied on factors that required an approach that was able to cross over the various disciplines and agency responsibilities.

Anangu involvement in the Review and in the presentation of the findings gave them a collective and individual way of expressing their concerns and contributing to a process to improve their living environment.

At another level Federal and State government agencies responsible for the funding and delivery of housing and essential services were developing their approach and administrative systems.

In 1988 Gerry Hand and Mike Rann signed the first State / Australian Government Bilateral Agreement for the provision of essential services. This agreement required that the Australian Government be responsible for Capital funding and the State for Recurrent funding. The UPK view has always been that Capital alone does not ensure health benefits rather that it is the adequate application of recurrent funds and programmes that ensure sustainable safety and health gains.

The Lambert Report [1988] was the first review of essential services in SA and was a report to The Safe and Healthy Living Committee. It was the first attempt to collect and collate data and develop an action plan for the roll out of essential services. The terms of reference identified a need to develop a works schedule as a matter of urgency and a program with a focus on Safe and Healthy Living consistent with the recommendations of the UPK and other reports. The review identified a housing maintenance backlog and the need for both capital and recurrent housing maintenance funding. Lambert also recommended the establishment of “mechanism for ensuring a co-ordinated approach to the resourcing, direct delivery and maintenance of essential services...”

Such a mechanism was set up in the form of “The Aboriginal Essential Services Coordinating Committee of South Australia”

The role of the Aboriginal Development Commission had devolved and the SA Aboriginal Housing Unit [AHU] had taken on responsibility for the delivery of a capital housing programme. The AHU were a participant in the UPK review and had initiated the Housing Standards Forum aimed

primarily reducing housing cost and at improving the design and construction of housing.

Both forums included representatives of all relevant government and community controlled organisations with a vested interest in improving infrastructure and housing outcomes.

I believe that many of the major gains in the late 80s and the 90s were partly due to the existence of both these forums. They were critical government initiatives that led to focussed dialogue about the detail of design, construction, and maintenance of health hardware [housing and essential services.]

During that period the predominant management style within government agencies allowed for ongoing, daily information sharing vital for the effective design and roll out of capital and recurrent programmes. Public servants attended large and often energetic meetings to explain their funding guidelines proposals and programmes. Staff and Anangu representatives from the APY Lands often travelled to Adelaide to participate in meetings and assist in the detail of program development. The AHU's Basic Specification document for housing broke new ground in indigenous house design and is still referenced in the National Indigenous Housing Guide 2nd Edition and many of the safety and health driven design details are now evident in other states and the Northern Territory.

Overtime this era of mutual respect, openness and cooperation between government and Anangu communities and organisations slowly changed. The structure and function of both state and federal agencies changed to reflect the current political policy of the day. AHU became the Aboriginal Housing Board [AHB] then the Aboriginal Housing Authority and currently it exists as the Office of Aboriginal Housing [OAH]. The SA Department of Construction Aboriginal Works Unit[SACON- AWU] became the Department of State Aboriginal Affairs Aboriginal Works Unit[DoSAA- AWD] then Works Infrastructure Development [WID] and Department of Aboriginal Affairs and Reconciliation [DAARE] and now Aboriginal Affairs and Reconciliation Division Department of Premier and Cabinet [AARD-DPC.]

The Essential Services Coordinating Committee was disbanded in 1993 and replaced with a forum that was more policy orientated rather than practical and this was also abandoned at a later date.

The Housing Standard Forum did survive up until the late 90s then expired and has only recently been resurrected. As a result the capacity for Anangu and the UPK programme to advocate for areas of identified need has been eroded

It is important to emphasise that for real change to occur there needs to be consistency and continuity in those bodies with the relevant responsibilities. Unstable funding platforms, constantly changing government policies, shifting of departmental responsibilities and personnel and long term under resourcing have all contributed significantly to the current situation on the APY Lands. These same factors also influence the level, nature and extent of resources available for research and development[R & D], capital and recurrent programmes.

Anangu demonstrated their understanding of the UPK message using posters, locally produced videos and a music cassette. The songs on the cassette have been particularly effective and are still well known 18 years later. Being able to get the message out using these mediums meant that the UPK program was seen as an Anangu program. It operated 'in harness' inside the fence. The principles and the links between housing, essential services, health and wellbeing were well understood by Anangu. In fact it became obvious that once health hardware was installed and functioning it was enthusiastically utilised by the population. [Centre for Appropriate Technology Washing Machine Report identified an average use of 6hrs/day at Amata] The challenge was and still is how to define and deliver 'appropriate housing and infrastructure' so that Anangu can be safe and practice healthy life choices on an ongoing basis. Basically it became the fundamental role of the PHU to ensure that people were able to have a hot shower, wash their clothes and bedding and all the waste water went where it was meant to go, hopefully store, prepare and cook food, reduce thermal stress, separate dogs and children and so on. This meant that the Unit had to monitor, define, initiate or direct those activities aimed at improving the living conditions.

The UPK programme had the capacity to call on expertise that greatly enhanced the ability to define the overall problem and the specific details required for an intervention to hit the targets. Often this meant working on projects/ studies with a key individuals and a range of service delivery agencies, government bodies, academic institutions and communities.

[see appendix 1]

The critical role of maintenance

Housing for Health

The UPK Report [1987] described and quantified a physical environment that prevented the practice of healthy living choices by Anangu on the APY Lands. The report also initiated the process of identifying the specific health problems that could be reduced by changes in the physical [living] environment.

The nine healthy living practices [HLPs] were developed and given priority in order of their likely importance in improving health status and basic performance standards and targets determined for each of these practices.

The report also identified three major areas for future work.

- Housing and Health Hardware design, supervision and implementation strategies.
- Increasing the capacity of community management to contribute to Health hardware sustainability.
- The critical role of maintenance in achieving sustainable health hardware.

Capital funding and capital works alone do not provide sustainable health benefits. It is ongoing funding for maintenance and upgrade/ replacement programmes that provide people with the capacity to make healthy life choices and achieve a measure of safety in their living environment.

Housing repairs and maintenance [R/M] programmes which have as their focus safety and health are more than an asset management programme.

On the APY Lands they are a fundamental preventative health programme and if the programme fails then the attack rate of the infectious diseases will increase with a subsequent increase in demand for clinical health care.

Improvement in environmental health should lead to a reduction in the attack rate and consequently morbidity from these infectious diseases which include diarrhoeal disease, acute respiratory infection, ear and eye disease, skin infection and hepatitis.

In 1986 the SA Teacher Housing Authority allocated \$4,300 per house per annum in order to maintain their assets on the APY Lands. At the same time there was no funding for the maintenance of Anangu houses.

In 1988 the Aboriginal Development Corporation [ADC] agreed to provide funding for Anangu houses in communities but not for those houses on homelands. Once AHB /AHU became the funding provider houses on homelands were then included. Initially communities were funded directly however they lacked the capacity to organise and supervise a housing maintenance program and funding providers slowly realised the need to have a focussed regional program.

The 'Housing for Health' project started at Pipalyatjara in 1992 and the report was published in 1994. This work demonstrated among other things that housing/ health hardware maintenance was achievable and affordable and that health benefits could be expected. In the meantime the UPK team were carrying out targeted Housing / Health hardware assessments in communities and Homelands based on the 9 HLPs and detailing works required. CDEP workers could have carried out the required works in many cases. Sadly there appeared to be no local capacity to follow through on the housing assessments. In 1994 ATSIC funded a regional housing maintenance programme that focussed on safety and health. The NHC UPK team managed this programme working with the plumber and electrician in houses in two communities and then providing ongoing management support. AP Services took on the overall management in 1996.

There are a number of key elements to containing the recurrent costs associated with maintenance. They are appropriate design, construction, supervision of construction and timely cyclical maintenance regimes. The Housing Standards Forum and the 'Ministers Specification' both provided a mechanism for improving the design and construction of housing. In 1987 APY was funded for a Building Supervisors position in order to help supervise the construction process for new houses. The South Australian Health Commission [SAHC] through their Environmental Health Branch [EHB] agreed to supervise the design and construction of the domestic waste water systems. This decision and subsequent implementation led to a major improvement in waste water system performance. Plumbers acknowledged the fact that the EHB could take them to the Licence Board if they failed to comply to construction standards and they soon learnt that supervision was onsite rather than remote. EHB also played a critical role in improving the design of waste water systems that were included in the Basic Specifications document and have continued to have the responsibility to vet designs to ensure compliance with established standards. The result has been a dramatic decrease in system failure recognised by NHC when they awarded a Certificate of Appreciation to a retiring SAHC Environmental Health

Officer. EHB should be commended for their efforts in this area and continuing support for their role is imperative otherwise slippage will occur leading to a scenario that was common in the 80s with raw sewerage flowing down the streets.

Timely adequately funded cyclical maintenance regimes are the third critical element necessary for sustainable health hardware. The majority of all work is not the result of abuse or misuse but rather the result of poor initial design, subsequent poor construction / installation and a lack of cyclical maintenance. It was soon realized that a regional approach to maintenance was necessary and plumbers and electricians were regarded as the critical trades required. There was also an opportunity to indigenise the housing maintenance programme and provide for training.

In 1997 NHC – UPK and APY and AP Services approached the Communications Plumbers and Electricians Union [CEPU] to establish a not for profit company to carry out housing maintenance and train apprentices. The CEPU reacted positively with a proposal that met all of the criteria however the \$30,000 required to meet establishment costs was not forthcoming from the State government and the proposal fell over. A contractor model was adapted and community based systems set up that identified health hardware failure and work sheets/ job lists were generated.

The contractor model has some inherent shortcomings.

- it is a business exercise for the contractors
- there is limited capacity to supervise works
- there is limited capacity to provide training

There will always be a need to manage a regional housing / health hardware maintenance programme. Up to now the programme has been run by an organisation controlled by the very people who live in the houses and as such this organisation has the greatest vested interest in ensuring effective programme outcomes. Current Federal government policy appears to be removing housing management responsibility from indigenous community housing organisations and ‘mainstreaming’ the responsibilities into State / Territory public housing bodies who have the least vested interest and are administratively remote from the ‘tenants’. Their approach to housing management is to have an asset focus and the tenant is seen as the biggest threat to the asset. It is a policing model not one that promotes sustainable health hardware.

Given the current collapse of the R/M program on the APY Lands there is an opportunity to review the funding and operational aspects of the

program with a view to improving the program outcomes which should be high sustainable health hardware function rates.

Under the National Framework for the Design, Construction and Maintenance of Indigenous Housing the Federal government will continue to provide funding to the state government [OAH] for housing maintenance. Rent collection and subsequent transfer to the R&M programme has been problematic to date. Options to improve rent collection and transfer could include a more thorough collection through automatic deductions, local tenancy officers and rents collected being directly paid into the regional R&M programme.

In 1997 the possibility of securing Federal government rent assistance was floated however there was a lack of support from other agencies despite the fact that based on the number of houses roughly \$900,000 per annum could have been expected to come in to the program.

A review could also explore models for service delivery outside of the contractor model that more adequately address the training and employment needs of Anangu. The UPK report recommended the formation of local public health units comprising of the CDEP workers, their supervisor, the Essential Services Officer [ESO] and the mechanic [if there was one]. Not all maintenance work requires qualified trades. Current limitations in the state trade practices act need to be amended to facilitate Anangu participation in housing / health hardware maintenance. Increasing the number of funded environmental health worker positions [EHW] and increasing their capacity to do fix work in their communities has been a long term UPK recommendation. Their main role being to engage in those activities required to raise the standard of housing, infrastructure and environmental health in general.

In 1999 the Commonwealth, State and Territories Housing Minister's Working Group on Indigenous Housing produced the 'National Framework for the Design, Construction and Maintenance of Indigenous Housing'. The Framework has four main principles.

- Houses for Indigenous peoples will be designed, constructed and maintained for safety.
- Houses will be designed, constructed and maintained to support healthy living practices.
- Quality control measures will be adopted in the design and construction of houses.
- House will be designed and constructed for long-term function and ease and economy of maintenance.

Whatever the form of service delivery it needs to be informed by these four policy principles. If these principles are lost then an increase in the prevalence and attack rate of the infectious diseases along with an increase chronic illness burden will most likely result.

Essential & Municipal Services

The establishment of water, power, sewerage systems, roads, airstrips and telecommunications on the APY Lands received it's first major boost in the late 1970s when the Aboriginal Public Health Improvement Programme [APHIP] was launched by the Australian Government. The SA State Government identified the APY lands has having serious shortfalls in essential services infrastructure and the Public Building Department [PBD] was commissioned to provide feasibility reports for the upgrade of services and infrastructure. Meetings with the Department of Aboriginal Affairs [DAA] and communities were held and capital works projects set in motion. Key personnel in PBD [SACON] became the Essential Services Team.

In 1988 the SA State Government assumed responsibility for the recurrent funding of essential services and the first Bilateral Agreement was signed in 1989. The Australian Government would provide \$2.245m. on a yearly basis for capital works and the State would contribute \$2.245m. to meet the recurrent costs.

At that time the State Government found it was trying to play catch up as the infrastructure available to service the population resident on the APY Lands was on the whole of limited capacity and often not to standard. Kalka in 1979 had an 8KVA diesel generator and power extension leads running on top of the ground to the caravans. Windmills were being erected using jib poles, cables and pulleys. Shelters were being constructed out of treated pine poles.

The true measure of what would be required to provide essential services and infrastructure to the APY Lands was poorly understood and never supported in any budgets. This is despite the commonwealth putting funds into the NAHS and HIPP programmes. State regulatory frameworks were loosely applied and recurrent funding levels froze.

Positive safety and health outcomes in part rely on the safe, affordable, efficient and sustainable delivery of essential services. If there are chronic failures in the planning, management and delivery of these services there

is a consequent impact on community and individual wellbeing. Failures can occur at the external, regional and local levels and can be found in Policy and Programmes.

Recurrent funding has not kept pace with housing and infrastructure development and saw DoSAA devising strategies to increase cost recovery through a user pays model.

1988 - \$2.245m recurrent State contribution 90 anangu houses

2000 - \$2.7m recurrent State contribution 350 anangu houses

1994 - \$3,193 /capita expenditure for SA on essential services
\$1,521/capita expenditure for APY Lands essential services
{ SA Centre for Economic Studies }

Electricity

There appears to be two subsidy schemes for electricity that operate in the State. The Remote Area Subsidy Scheme [RAES] and the Remote Aboriginal Communities Electricity Scheme [RACES].

RAES – State subsidy / person / year in 1999 / 2000

\$5,060 – Maree, Marla, Glendambo, Mannahill, Nundroo, Parachilna, Cockburn and Kingoonya.

\$1,932 – Yunta

\$1,144 - Andamooka

\$842 - Coober Pedy

Total - \$5,929,588 Population serviced 4,680

Average / person / year \$1,267

RACES – State subsidy / person / year in 1999 / 2000

\$1,450 - Yalata

\$560 - Oak Valley

\$490 - Kaltjiti

\$460 - Iwantja

\$410 - Piplayatjara

\$350 - Pukatja

\$350 - Amata

\$290 - Mimili

Total - \$962,400 for the APY Lands. Population serviced 2,528

Average / person/ year \$380

This figure does not include the non Anangu residents on the Lands.

Current 2007 figures are not known but clearly the level of recurrent funding for electricity has not kept pace with the increasing access that Anangu now have to essential services and housing. ESOs speak of decline in cyclical maintenance on essential services an increase in breakdown maintenance and a lowering of their capacity to effect repairs. Replacement parts, fittings and tools are difficult to source from available budgets. Fuel for the generators has also become problematic. Funding to pay for the fuel for the community generators has to be cobbled together from the store, member accounts, borrowing from Indigenous Coordination Centre [ICC] grants and from suppliers being prepared to extend credit. User pays as a cost recovery measure has also been introduced over the last ten years with a tariff schedule that ironically relates to the RAES tariff but without the RAES level of subsidy.

Outcomes from this overall insufficient recurrent funding for electricity include outages due to no fuel and power rationing and store funds being used to purchase fuel [eg. Amata Store had \$50,000 borrowed in 2006 which to date has not been repaid]

Cost recovery needs to be matched with the individuals and the organisations capacity to pay however the current subsidy levels need to be reviewed along with the procedures currently in place for the purchasing of fuel for the powerhouses.

User Pays for electricity [retailing] also introduces a new regulatory framework and a new licensing regime. Retailing electricity brings a broad range of legislative requirements that spell out processes in relation to:-

- The exclusive rights to sell to non contestable customers
- The maintenance of accounting records
- Establishment of customer consultation processes
- Standard contractual terms and conditions of sale
- A code of provision of service
- Dispute resolution
- Greenhouse reduction strategies

Without these processes in place user pays is simply a bill paying service and is not meeting all the legislative requirements for the retailing of electricity. [Source: Atsic DoSAA report 2001]

Essential services that have insufficient recurrent funding will impact on security of access and as a consequence the safety, health and wellbeing of the Anangu population.. Power, water supply and sewerage system failures will become more common which seems to fly in the face of the ‘Mission Statements’ put out by the service providers.

One of the difficulties with essential services delivery is that there is no national measure of peoples capacity to gain safety, health and sustainability benefits out of the infrastructure and services, no national framework and no clearly defined underpinning principles. As such it is hard to gain a perspective on how effective the funds are being deployed. Any Essential Services Framework should be guided by the following principles :-

- safety
- health
- quality control
- sustainability / affordability

A good example of this is the National Framework for Indigenous Housing, which includes an increase emphasis on recurrent [R&M] programs and a commitment to an ongoing national audit of health hardware function rates. Benchmarks have been identified and key performance parameters for measuring the efficiency and effectiveness of service delivery are being applied nationally.

Unfortunately there is no National Framework for the Design, Construction and Maintenance of Indigenous Essential Services and in SA it is not often clear who is responsible for what, where the money comes from, what role the regulatory and utility bodies play, what role state government agencies play and what role if any that the aboriginal organisations play. It is not unusual that infrastructure projects can take years to come to fruition with a multiplicity of plans and specifications being drawn up and constant contract variations. Inception meetings, start up meetings, focus group discussions, reference group forums and so on have been endemic in the construction process and yet there has been no repeatable methodology developed to assess service function performance rates and to fix items on a prioritised basis.

In 1996 the Australian Geological Survey Organisation [AGSO] began a comprehensive water quality assessment program. AGSO then became the Bureau of Rural Sciences [BRS] and they conducted further

assessments of rainwater and groundwater sustainability. Once the water resources had been mapped and analysed the information was used to inform an APY Water Management Plan and as a basis for future capital works. The Water Study was initiated by NHC and was the first comprehensive assessment of the water resources of the APY Lands. The study was stimulated by a number of things. Members of Kaltjiti community had complained about the quality of their water claiming it made them feel lethargic and generally unwell. When available water quality data was gathered and assessed against the Australian Drinking Water Guidelines it became apparent that critical parameters had never been sampled and analysed. The question became was the water safe to drink?

Having gathered water consumption data over a number of projects and noting an increase in housing stock and new public buildings concerns arose about aquifer sustainability and again there was limited information. Is there enough water in the aquifers on a long- term basis to support towns and communities. What stimulated the Water Study were concerns from the Anangu rather than external agencies and this is an important point to consider when ‘engaging’ with organisations on the APY Lands.

NHC argued for an Energy Study in 1999 but was not successful.

In 2000 ETSA put out a report on the Electrical Distribution Systems on the APY Lands where they identified 425 defects. This report was in response to findings from a coronial inquiry into the death of a child from electrocution: a harsh indicator that the regulatory regime was flawed. The need for the application of State Regulatory regimes for electricity, sewerage and water became evident and DoSAA began a staged withdrawal from service provision with ETSA and SA Water taking on some operational roles.

There have been moves to encourage APY or APY Services to become a “supply authority” and for this to be adequately assessed an industry specialist would need to review such proposals on APY’s behalf.

Whoever ends up as the regulated service providers it must be acknowledged that it is the Anangu themselves who have the major vested interest in ensuring that both housing and infrastructure is safe, affordable, sustainable and provides ongoing health benefit. They must be a stakeholder in service provision and not simply seen as the clients and the passive recipients of service provision.

Current essential services management trends are tending to preclude Anangu involvement, possibly because it is government policy or it is viewed as being too hard to achieve.

Apart from installing, consolidating and maintaining the basic services and infrastructure there is a need for developments in the following areas.

- Reducing / containing energy costs through an energy audit/retrofit program.
- Augmenting community water supplies through the harvesting of rainwater and stormwater and the judicious use of waste water.

Conclusion

Whilst it would appear that responsibilities and roles with respect to infrastructure and service provision will continue to vary over time as governments of different persuasions come and go along with their policy driven programs it is critical that an overall framework that has underlying evidence based principles, a well defined focus and a repeatable assessment methodology be put in place to maximise the potential benefits.

Notwithstanding what the Policy of the day is and who has the service and capital provision responsibility both individuals and communities need to have access to infrastructure and services that are :-

- Safe
- Provide health benefit
- are affordable and sustainable
- and are delivered in consultation / collaboration with Anangu and their organisations.

Stephan Rainow – UPK Program coordinator
26/7/07

Appendix 1

The following is a list [not all inclusive] of action research activities, studies and reports initiated, carried out or supported by the UPK program.

1988 –89

Report to UPK on the funding bodies and guidelines relevant for the establishment of a Land Management program AP Lands.

Ross Johnston.

It is a fundamental requirement of the Tjukurpa that anangu be mobile and active across the Lands. Cultural maintenance is critical for anangu to have a positive sense of well being and the ability to relate to the Land as required by their Law. Cultural maintenance also has economic potential.

Services and Resources Planning on AP Lands

Ross Johnston

This was the first in house report on Essential Services to AP.

1989 – 1998

Basic Specification document Housing Design and Construct Tender SA Aboriginal Housing Unit , Housing Standards Forum.

This annually revised document allowed for practical and technical inputs that radically improved the design and construction of new houses as well as attempting to contain their recurrent costs.

1989 – 90

UPK Video, Music cassette, Posters

Health Promotional material aimed at informing anangu about the content focus and recommendations of the UPK Report [1987]

Inaugural Dog Health Program AP Lands.

SA. Dept. Of Agriculture. Dr Gordan Payne

This report detailed the zoonotic diseases and parasites prevalent in the dog population and the treatment methods required to reduce risks of cross contamination.

1991

AP Design Guide Building for Health on the AP Lands.

Paul Pholeros

This book was written as a manual for community based bodies party to housing/ building projects. It discusses the critical health hardware requirements, the building process, contracts, the need for supervision issues in relation to the site and building costs etc.

1992

National Needs Assessment Survey

ATSIC

A request was made for UPK input into the content and the application of the survey

1993

Housing for Health – Pipalyatjara

Healthabitat /NHC and the community.

This work has been publicly credited by ATSIC for stimulating the national Health Infrastructure Priority Projects [HIPP program]

It demonstrated that well targeted health hardware maintenance does lead to population health gain, is achievable and not a funding black hole.

AP Homelands Policy

Homelands and the policy development committee.

This was the first and only Policy on Homelands developed by and for anangu and endorsed by AP.

1994

The Washing Machine Report

Christian Tietz. Industrial Designer

NHC- UPK commissioned a report aimed at identifying those makes and models of washing machines capable of washing clothes and bedding given the harsh operating environment.

Specified machines were subsequently funded installed and data logged in houses.

1996

Washing Machine Report

Centre for Appropriate Technology [CAT]

A report on the monitoring and the data logging for usage of a sample of machines in 2 communities.

This report gave us baseline data on usage patterns, common faults, life cycle implications and maintenance issues.

Six detailed Research Proposals submitted to the NTRC-CAT

UPK – Paul Pholeros

Temperature Data Logging of 5 Houses – Pipalyatjara

A report to the AHA – SA

UPK – Paul Pholeros

The research was primarily aimed at increasing peoples access to heating and cooling in their houses. The AHA was the first Indigenous Housing Authority to install heating and cooling as a matter of Policy in the houses they funded.

Wastewater Study

Wollongong University – Mohsen Khalife

This was the first of a series of reports on wastewater and the performance of conventional septic tank systems and on site disposal at Pipalyatjara. The study was commissioned by NHC- UPK

1997

Energy and Water Use required for Health

Report to UPK – Paul Pholeros

This report compiled current household water and energy usage data. It also estimated the amount required to carry out the relevant HLPs.

Indoor Stoves for Remote Communities

CAT – Christian Tietz , Sonja Todd.

This report looked at both gas and electric stoves , common problems and suggestions about improving performance.

Septic Tank Maintenance Guide

Mohsen Khalife – a manual produced for UPK

This guide provides information on system components and function , wastewater characteristics , common problems and maintenance requirements.

‘Don’t forget to take the plumber’ an article co authored with Dr Penny Miller on doing research in aboriginal communities published in the Australian and New Zealand Public Health Journal.

1998

A National Hot Water Trial

NTRC – CAT Bob Lloyd.

A report on the assessment of a range of hot water units servicing indigenous houses around Australia. The report’s intent was to provide information on those units that can meet the performance criteria are efficient and cost effective.

AP Services Resource Management Project

Kutjara Consultants

This body of work produced accessible information for anangu about housing, water, energy , good food , appliance use as well as a ‘Cost of Living’ study. This study helped leverage Federal government funds for the development of a Healthy Food/ Stores Policy for the AP Lands.

A report on Rainwater Harvesting off Anangu Houses.

Australian Institute for Aboriginal and Torres Strait Islander Studies

AIATSIS – Dr Graham Henderson. A UPK collaborative project.

Using a CSIRO Raincatch computer program and inputting roof area and rainfall data information meant that the potential harvest of rainwater could be determined and recommendations made with respect to tank size.

1999

Amata Water Softening Trial

Bureau of Rural Sciences.

This study presents the results of a trial of water quality intervention technologies.

Guidelines For a Comprehensive Strategic Energy Study of the Anangu Pitjantjatjara.

Energy Strategies.

This report is an assessment to advise NHC on the feasibility of undertaking a strategic study of power and energy supplies and potential future options.

2000

Groundwater Quality and Environmental Health Implications
Anangu Pitjantjatjara Lands.

Bureau of Rural Sciences, Dept. of Human Services SA, Dept. of Primary Industries, Nganampa Health Council.

This water quality study provides for Anangu, their organisations and government agencies the first comprehensive baseline data on water quality and potential health implications.

Environmental Health Handbook
Menziess School of Health Research

This is a practical manual for community based workers.

Report on Existing and Available Automatic Rainwater Tank First Flush Devices and Gutter Guards.

C. Tietz.

This document provided information on current technologies that could be retrofitted to rainwater systems as risk management tools.

Kapi Nganampa.

Bureau of Rural Sciences

This report provided the first data on the sustainability of groundwater on the APY Lands.

2001

Microbiological Quality of Rainwater in Several Communities on the Anangu Pitjantjatjara Lands.

Bureau of Rural Sciences.

Over 100 rainwater systems were surveyed and sampled with clear recommendations in relation to reducing the risks of contamination of supply.

Harvesting of Stormwater in Remote, Arid, Indigenous Communities. Rio Tinto. CAT.

This report detailed landscaping techniques used on the APY Lands to harvest stormwater.

2002

Mai Wiru Regional Stores Policy and Associated Regulations. Kutjara Consultants. NHC, NPY Womens Council, APY Land Council and APY communities.

This document details the endorsed health based Policy that governs the operations of stores on the APY Lands.

Strategic Economic Study –APY Lands
PDP- Australia

This was the first draft of an attempt to map current and potential income streams viable for the AP Lands. The PY Ku project grew out of this work.

APY Water Management Plan – BRS / Tony Davies

Stormwater / Rainwater Harvesting – Mike Last

A number of reports and fact sheets on the projects at Pipalyatjara, Kalka, Iwantja.

UPK Program Activity and Input timeline

{not all inclusive}

The overall aim is to secure the living environment within which people can make Healthy Life Choices.

Many of the activities were ongoing and in other cases they were 'one off'.

1985-86

UPK Review commences

Ernabella Sewerage Upgrade - DAA SACON

1987

Aboriginal Housing Units adopts design changes

AP Building Supervisor position funded – AHU

UPK Report

1988

Agreement to fund communities for R/M Housing –ADC, DAA , AHU
Feasibility into the funding of an AP Land Management Program
Commissioned by NHC.

Submission for the provision of solar power for the AP Homelands.

UPK and Pitjantjatjara Council Projects.

SAHC –EHB introduce a regulatory regime for the design and installation of house drainage systems.

1989

NHC – Public Health Unit funded – SA Health Commission

UPK video, posters and Music cassette produced

Electrical Upgrade - DAA, SACON

Home Management programme – Pukatja - ADC

Health Hardware Project initiated. 132 units installed – DAA

Housing Upgrades – Wet areas & verandas. – AHU

Hot Water targeted maintenance program.

Dog Health Program started. – SA Dept. of Agriculture.

Solar Power Program – Homelands – 35 units installed – DAA

1990

Drainage and Sewerage Upgrade – DAA SACON

AP Plumber / Electrician team established.

Bacteriological Testing of Community Water Supplies

AP Land Management Program started.
Housing and Infrastructure upgrades ongoing.
Dog Health program - ongoing
AP Design Guide – Paul Pholeros.
Drum Ovens manufactured for cooking.
UPK Video and Bilingual education kit.
Germ Theory cartoons.
Housing Standards Forum
Essential Services Coordinating Committee.

1991

Health Hardware and Infrastructure upgrades ongoing
Solar Power Homelands.
Water Supply upgrades Homelands. – ATSIC – NAHS
Power option feasibility study – ATSIC
Environmental Health Workers WA. AP Lands visit.
Dog Health program
Healthy Stores Workshop

1992

Solar Power and Water upgrades ongoing. Homelands
ATSIC National Needs Assessment- Housing and Infrastructure Survey
EHW House hygiene program
UPK Posters – AP Story, Homelands, UPK Update.
Housing for Health Project Pipalyatjara initiated.
Dog Health program
AP Homelands Policy
Housing Standards Forum

1993

Health Hardware / Housing assessments
AP Regional Housing Maintenance Program started.
AP Waste Management Program
Dust Control trial
Pukatja Outside Kitchen
Essential Services Coordinating Committee disbanded
Housing Standards Forum
Dog Health program
EHW work

1994

Pipalyatjara Housing for Health project ongoing.
Health Hardware / Housing assessments.
AP Housing Maintenance/Upgrade program
AP Waste Management program
Housing Standards Forum
Dog Health Program
EHW work
Washing machine study

1995

AP Housing Maintenance/ Upgrade program - 250 houses to date
Washing machines funded / installed
Health Hardware / Housing assessments
Dog Health
EHW work
Waste Water Study Piplayatjara – Wollongong University initiated
Water Quality – Fregon [Kaltjiti] recommended for water treatment.
Technology research- washing machine, onsite waste disposal systems
Research proposals x 6 to NTRC – CAT submitted in relation to :

- Hot water
- Washing machines
- Stoves
- Lighting
- Door furniture
- Dust control

Iwantja Water Treatment Plant – poor performance issue
Potable water supply orange in colour. Process begins to upgrade supply.
Watarru Laundry Block

1996

Housing Standards Forum
Health Hardware / Housing assessments
Dog Health
AP Services take over Housing R/M Program
Washing machine Trial – washing machine maintenance incorporated in
R/M program – AP Services
Waste Water Study – Pipalyatjara winding up
Septic Tank Maintenance Guide produced sent to all ESOs

National Hot Water Trial kicks off. Watarru and Kalka included in trial
Thermal data logging project – Housing Pipalyatjara and Kalka
EHW work and visit from NT and Qld EHWs
NAHS Waste Management project

1997

Housing Standards Forum – 10 years old !
Dog Health Program
Health Hardware / Housing assessments
NAHS /HIPP projects [check]
AP Services Housing R/M program
Communications Plumbing and Electrical Union [CEPU] proposal re
regional maintenance/training program.
Septic Tank pump out program
AP Services Resource Management Project / Cost of Living study –
Kutjara consultants
Provision of water, shade and pit toilet at 3 airstrips
Waste Water study completed – new designs for septic tanks being
developed
NTRC Hot Water Trial
NTRC Stove Report
The Water Study initiated – production bores sampled and analysed
Water softening trial – Amata
Energy and Water required for Health produced and endorsed by the
CSIRO
Electricity – User Pays issue looms
Poverty and capacity to pay confounding factors

1998

Housing Standards Forum
Dog Health
The Eye Health Project – Christian Blind Mission International, the
Centre for Eye Research, Pipalyatjara and NHC
A weather station, vehicle classifiers , dust meters and fly traps installed.
Water Study- sampling and assessment completed
Waste Water – new septic tanks installed and monitored
EHW work
AP Development Consent committee member

APY Land Council passes resolution for a health based stores policy for the Lands.

1999

Housing Standards Forum
AP Services Housing R/M program
AP Development Consent committee
NAHS Housing program
Dog Health program
Water Study – water quality final report
 Water sustainability draft report
 Rainwater tanks [140] surveyed
Electricity cost recovery user pays issue ramps up
NHC initiates feasibility study for a comprehensive strategic energy study
The Eye Health Project – baseline data collected dust control measures developed
Mai Wiru Regional Stores Policy funding submission - NHC
Strategic Economic Study funding submission – APY Land Council.
NAHS / AHB Housing Program

2000

Mai Wiru Regional Stores Policy development
Eye Health project
Water Management Strategy / Plan
NAHS projects
Dog health program

2001

Mai Wiru Regional Stores Policy Project
Eye Health Project
Water Study – Groundwater sustainability project – BRS
Microbiological Field Test kits deployed – SAHC / EHB
Dog Health program
NAHS/ AHB Housing program
Road Safety – Belt Up signage – NHC / AP Services

2002

Eye Health Project
Mai Wiru Regional Stores Policy Project
Economic Study – APY Lands
APY Water Management Plan
Dog Health program
Septic Tank Pumpout program
National Indigenous Housing Guide

2003

Mai Wiru Regional Stores Policy Project
Iwantja Dust /Stormwater / control Project – NHC / CBMI
Rainwater microbiological Report – BRS
Economic Study APY Rural Transaction Centre proposal
Temperature Data Logging – Housing – NHC / AHA / Paul Pholeros
UPK Music CD 2
Dog Health program

2004

Mai Wiru Regional Stores Policy Project
Iwantja Dust / Stormwater control project
Temperature Data Logging project – Houses
Rural Transaction Centres project
Environmental Health Worker proposal – SAHC / EHB
UPK Music CD 3
Dog Health program

2005

Mai Wiru Regional Stores Policy Project
Watarru stormwater project
Fixing Houses for Better Health projects – Amata , Kaltjiti
EHWs community based programme proposal
UPK Music CD 4
Dog Health program

2006

Mai Wiru Regional Stores Policy Project
Kanpi / Nyapari Dust & stormwater control project
EHW program
Dog Health program

Much of the activity has been around mapping the environment and developing targeted interventions leading to a higher standard of health hardware on an ongoing basis and access to programs that support the nine healthy living practices [9HLPs]