People working with technology in remote communities

ourplace

Number 23

SWIMMING POOLS
- making a dream real

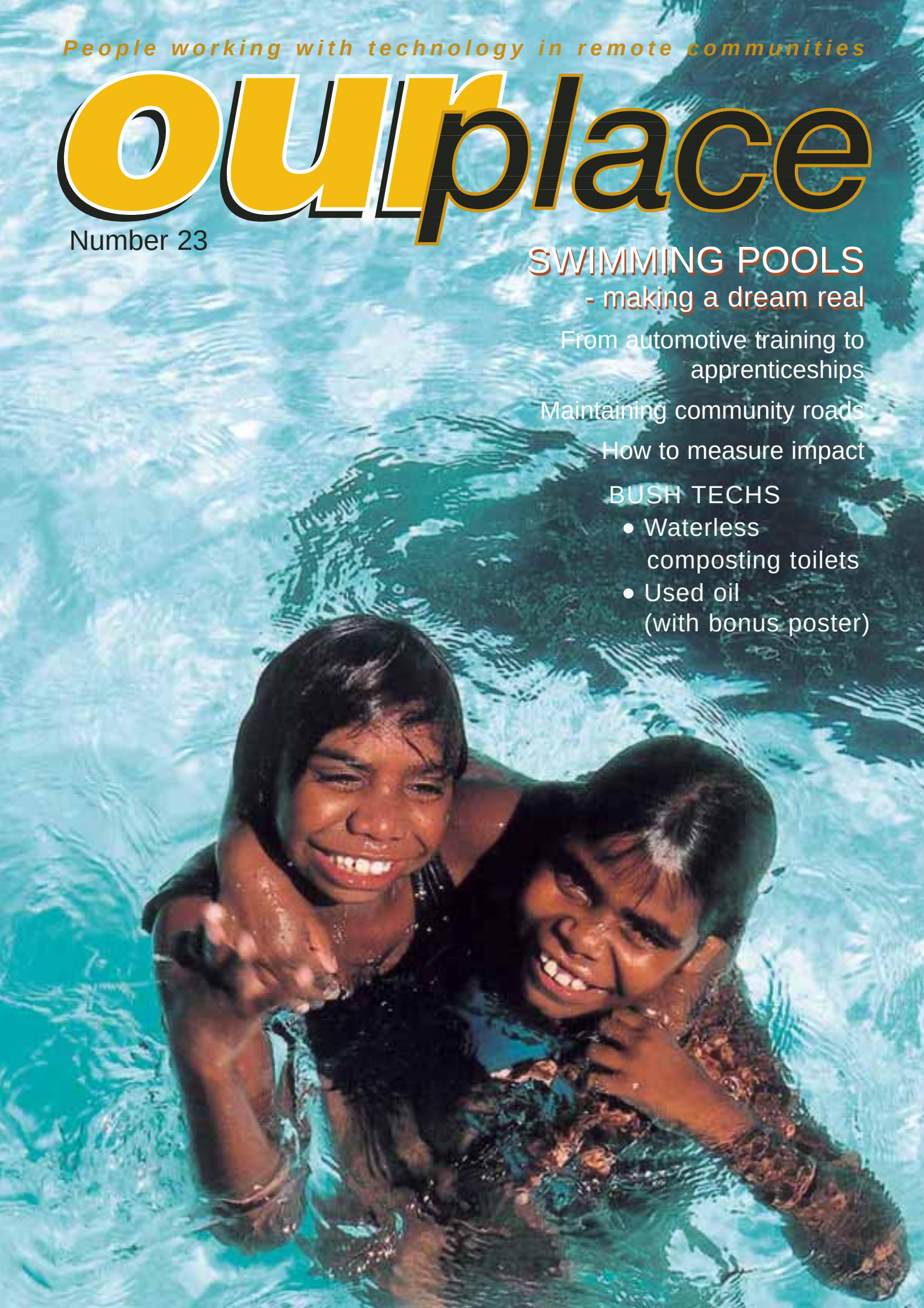
From automotive training to apprenticeships

Maintaining community roads

How to measure impact

BUSH TECHS

- Waterless composting toilets
- Used oil (with bonus poster)



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Is this a picture of the future? Community kids with chlorine bleached hair taking part in swimming as a sport? These swim stars are at Burringurrah, where the pool was built by the WA Department of Housing and Works. Pools are costly to build and maintain but, as our feature story shows, the list of benefits continues to grow.

Thank you to readers who filled in the survey in the last issue. Most of you told us the magazine was the better for being targetted and was well pitched to its intended audience. The draw for the BBQ was won by a reader in the Top End NT.

One reader would like to see more pictures and easier text for community people who have English as a second language. CAT is planning more visual products, like the used oil poster inside this issue. The *Our Place* radio series is taking stories about technology across the country. The stations that play *Our Place* are listed on the back cover.

There's more about the survey on our website at www.icat.org.au. And your feedback is always welcome.

Kathie Rea, editor

FRONT COVER: *The delight on these young faces may tell you all you need to know but there's much more to swimming pools as our story shows. CAT staff member Elliat Rich photographed these girls from Yipirinya school enjoying the cool waters of Alice Springs pool. Photos on pages 8 to 10 are by Elliat and Hannah Hueneke, and feature students from Irrkerlantye and Yipirinya at the public pool and Yirara College students in their campus pool.*

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www.icat.org.au

Health and wellbeing

out on country

Stephanie Allen is co-facilitator of the Aboriginal Women's Health and Wellbeing Camps in Tasmania. She talked to *Our Place* about how the camps work for women.

Stephanie Allen

Why do you hold the camps?
"We have the camps because we're concerned with the health of women. We take our children, all the girls, and boys up to seven years. The women say what they want, what topics they want to cover.

"At the last camp the topic was healing. We talked about what healing meant to the women. There were many different opinions - not just healing your outside, also about healing your spirit. We talked about bringing changes in your life to heal your body, like eating less takeaway food.

"We go country for camps. A lot of us are city people. The camps are time to get connection with country.

"We have four to six camps a year. Camps are aimed at about 20 although there were 32 women and young 'uns at the largest camp. The most recent camp was 20 women and one teen girl. We don't have baby sitters. We share caring for the kids. We go back to basics, we take our camp right back to our culture, in our country, with our cultural connections."

How do you organise the camps?
"I'm facilitator, Launceston based. My co-facilitator in Hobart is Ruth Langford. We're supported with office facilities by organisations: first, the Indigenous Women's Legal Service and now Project Hunn (a sports and recreation organisation).

"The women set out guidelines for the camp, what's important to them. Counselling is available whilst on camp. (Stephanie is a qualified mental health counsellor.)

"We have only two rules. First is the rule of two feet. There's even a sign to go with it, showing two feet. If you don't want to take part in anything, you talk with your feet, not with anything else.

"Rule two is about our busy bees, they're the ones who are always buzzing, and our butterflies, who take things more gently. No one can criticise our busy bees for being busy or our butterflies for doing what they do. If there's an activity on, you make your choice of which group you want to be in or not to take part in this activity.

"It's good we're not with any organisation. We talk and come to our own views. Sometimes we put recommendations up and push for them to happen. One of our aims is to have an Indigenous woman at Women Tasmania (state government) to encourage young women's involvement in the women's leadership program.

"There's lots of gunnas about, we're not these gunnas, we are going to do something."

What do you do on the camps?
"We do a lot of craft activities relevant to our culture. We make shell necklaces. I brought a shell mobile with me as a gift from my countrywomen to the traditional owners here. It's an abalone shell on top with strings of smaller shells and pieces of coral.

"We take cultural food for healthy eating; kangaroo and shellfish, mutton bird, mutton fish (what you call abalone, we call mutton fish), periwinkles, werriwa - I don't know the other name for that.

"There's yarning and storytelling; we like ghost stories. That's one of our favourites, storytelling around the campfire. There's singing, talking about issues, going on walks. Sometimes we're talking about big issues like the logging threat to Toolumbuna, a women's site near the town of Mole Creek.

"I see a lot of hype; this is an opportunity for moving forward. It's about time that what we're putting in, we're getting out, so we can go forward, not stand still."

Stephanie Allen (left) presents a shell mobile as a gift from her countrywomen to M K Turner, a senior Arrernte woman who welcomed Indigenous women from across Australia to a gathering in Alice Springs. Shells and pieces of coral are strung from an abalone shell. PHOTO: Sabina Knight.

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Women's camps

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Who comes to camps?
"Women, from little through to elders. I see some of our community women and say we've got a camp coming up. Women talk to other women and spread the word. We have others come in, people with something to talk to us about, from mainstream services and Aboriginal organisations.

"We're all about empowering women with our camps. The women teach and learn. One woman might say I know about painting and she'll lead that. There are craft sessions, parenting skills, budgeting. Whatever is of concern to any woman. Every woman has the right to have her say and be listened to."

Would you tell us a bit about yourself
"I was born on Flinders Island and grew up there and on Cape Barron Island. My family name is Mansell. I left 25 years ago, went to the mainland. From the islands, Tasmania is the mainland and we call the rest of Australia 'the big island'.

"Later, I did some TAFE bridging courses and then studied at Curtin University. I completed a Bachelor Applied Science, Indigenous Community Health, specialising in mental health and counselling.

I have five children, aged from 18 to 25 years, and 14 grandchildren now. Two new grannies arrived this winter."

Stephanie Allen spoke to *Our Place* while visiting Alice Springs for an Indigenous Women's Gathering. The gathering was organised by the Regional Women's Advisory Council (which advises the Deputy Prime Minister) and the Indigenous Communities Coordination Taskforce. Women came from each of the eight Council of Australian Government (COAG) trial sites.

Planned maintenance works

Bulanjarr resident Garry Clancy checking the fuel level of the powerhouse fuel tank.

Planned maintenance runs have halved the incidence of power and water restrictions for a group of 22 small remote communities in the Kimberley.

To June this year, only six power/water restrictions had been reported by communities as being a problem. Fourteen were reported in the same period last year.

This is the third year that CAT Derby has run a planned maintenance program for essential services in these communities. Initially supported by ATSIC Malarabah Region, the program now is funded by the Commonwealth.

Currently, CAT Derby is managing two contracts for planned and preventative maintenance to the power and water supplies of the 22 remote communities.

The contractors visit each community once a month on average to service the engines that power the water and energy supplies. Service crews also carry out preventative maintenance, complete small breakdown repairs, and clean and weed around the services.

CAT Derby arranged a helicopter for Top End Contracting to service scommunities that were isolated during the wet season. The contractor also installed solar powered battery chargers in some communities to keep up voltage levels on the power house batteries when the community was vacant.

Top End Contracting services 21 communities; Balginjirr (Lower Liveringa), Bawroogoora, Bedunburra, Bidijul, Biridu, Bulanjarr (Mowla Bluff), Djilimbardi, Galamunda, Kurlku, Majaddin, Milliwindie, Mimbi, Mingalkala, Ngarantjadu, Pantijan, Rocky Springs, Tirralintji, Wamali, Windjingayre, Yarri Yarri and Yulmbu (Tablelands).

The other small community in the program is Cone Bay (Larinyuwa). CAT contracts Maxima Pearling, which has a pearling lease nearby. A crew comes ashore in their service boat to carry out specified maintenance. CAT organised for the community to make available a quad motorbike so service crews can get to the water supply on the hill.

The contractors supply a report for each visit to each community. CAT Derby staff make random site visits for quality control and work out solutions to emerging problems; e.g. wet weather access, to ensure the maintenance plan is carried out.

A portable field water testing kit has been purchased to extend the capacity of the program. An environmental officer with Rio Tinto will be assisting CAT Derby staff to establish test procedures. This is one of seven projects in the 2004 CAT – Rio Tinto fellowship program.

Radio - the 'new' communication technology

All through the day and well into the night people are talking via radio in the Ngaanyatjarra Lands of Western Australia. Adults remember HF radio and have picked up UHF with the familiarity of an old blanket. Teens and children have keenly followed their lead.

Families are connected across some 120,000 square kilometres by a radio repeater network. Old people, children and all in between are using simple, 40 channel UHF hand-held receivers.

Yarnangu have taken up the network as their own, validating the decision to invest in the more expensive UHF network, rather than fund a HF network, which offers cheaper infrastructure but requires expensive receivers.

The Ngaanyatjara Community Council and the Shire of Ngaanyatjaraku decided to ensure affordability at the user end. A HF receiver costs several thousand dollars. A UHF hand-held receiver retails at under $100, even on the lands.

Ngaanyatjara Community Council reached agreement with the Commonwealth to consolidate other 'communications' grants with funding received under the Networking the Nation scheme. The Shire took on project management and the UHF network was in use by early 2003.

The network of 15 repeaters provides coverage across large tracks of the Ngaanyatjarra Lands. Radio is free and continuous. The network is used to arrange meetings, broadcast social news, report emergencies, find out who is where and check the progress of travellers.

It's also for just chatting and maintaining contact, which keeps language strong and reinforces cultural ties.

Radio users are connected on one duplex channel and also served by local channels. Select the school channel or the health service channel or one of a dozen others and join in a party-line.

But mostly people use the 'chat room', switching between repeater channels as they move through country.

The lack of privacy in the chat room has made no dint in its popularity. To reduce listeners, people can switch to a local channel if they are within range of each other. If they want privacy, they use the telephone.

People are finding the funds to buy a receiver but the cost of disposable batteries may choke use. The batteries are simple AAAs but old people, in particular, may go through a set a day. The demand is for a robust hand-held with a built in rechargeable battery pack.

The UHF hand-held receiver, a tool for keeping language strong on the Ngaanyatjarra Lands.

The repeaters have aerials ranging in height from 18 metres on a good hill to 58 metres on flat terrain. The box of electronics at their base is state of the art and set up for ready upgrade. The repeaters sites are solar powered and included in the regular maintenance runs of Shire staff.

A welcome side-benefit of the network is a reduction in bushfires which flare out from the emergency beacons people send up if they are stranded due to vehicle breakdown. Very often someone has a hand-held and is close enough to send a message.

Staff vehicles and an increasing number of private vehicles are being fitted with UHF car radios, which cost hundreds of dollars but have a much wider range than the hand-helds.

In the second phase of the project, now underway, six communities not reached by the network will receive stand-alone repeaters for local area contact.

Chainsaw maintenance

Students receive on site training during a short course in chainsaw maintenance and operation. Day one was learning how to use, clean and sharpen a chainsaw in the workshop at CAT. On day two, students gained practical experience under the supervision of lecturers Sean Boyce and Trevor Haddon.

Waralungku Arts in Borroloola

"We're too far hidden up here", Phillip Timothy, chair of the Board of Waralungku Arts, explains. Board members plan to move the art centre from an old store tucked amid service buildings up to the town's entrance, directly across from the caravan park. "We'll go to the main road; tourists will see. There's big trees, people can sit outside and work."

Phillip Timothy, chair of the Board, painted a dugong near the entrance to the arts centre. Culture is strong in the Borooloola region and dugong are important in ceremony and traditional hunting. Timothy is an established public artist; his large paintings adorn the walls of the council building and the amenities block at the airport.

The centre name, Waralungku, is the place name for the Burketown Crossing on the McArthur River, just outside of Borroloola. It is associated with the Hill Kangaroo dreaming. An imprint of its feet, tail and hind quarters are located at this site.

The vacant building the board will lease has two wide verandas - painting spaces for both women and men, and a place to meet visitors and potential buyers. Fit out will be completed for an opening during the next tourist season.

Since it opened in February 2003, the use of the arts centre has grown. "Many more artists are coming in", Timothy says. "Some paint different style; some same style. Some never painted before. They do pictures to tell their stories."

Paintings line the wire shelving around the walls, while wooden sculptures of animals, boomerangs, coolamons and spears crowd the benches and cluster on the floor. Bright acrylic colours reflect land, stories, food and history of the Borroloola region. Sales income of $70,000 in the first year was encouraging. Now, an ATSIS capital grant will assist Board members and staff to outfit the centre.

Sales of art and craft are nothing new in Borroloola. Coordinator Peter Callinan estimates that Waralungku Arts sales represent about a third of art and craft sales in the town. Producers sell directly to visitors or through outlets such as the hotel. In this reckoning the arts centre is another outlet for sale. But Waralungku Arts has a much wider brief - developing artists, providing opportunities for visitors to meet producers, marketing and introducing new mediums, such as screen printing.

Callinan used to travel from Barkly Arts in Tennant Creek to Borroloola and outstations to visit a core group of emerging artists and connect them up with opportunities such as the Barkly Festival. The arts centre – established by Mbuntji Aboriginal Resource Association with ATSIS support - already has brought a developmental leap. In 2003, Waralungku exhibited for the first time at Desert Mob, an annual showcase of work from Aboriginal art centres, held in Alice Springs. A Waralungku exhibition at Nyinkka Nyunyu cultural centre in Tennant Creek in May brought good feedback. There's even talk of the beginnings of a 'Borroloola style'.

Two Borroloola artists will have exhibitions in Darwin later this year; Stewart Hoosan at Karen Brown Gallery and Nancy McDinny at Raft arts space. Both sold work at the Aboriginal and Oceanic Art Fair in Sydney earlier this year. Meanwhile, Gadrian Hoosan, their son, made friends amongst performers in the growing hip hop movement. Hip hop has become a powerful medium for self expression amongst the young from Redfern to Cairns. Gadrian is deputy chair of Waralungku Arts and a member of the Sandridge Band.

Assistant coordinator Madeline Dirdi puts through a credit transaction. School's out so her daughter Vicki is on hand to help.

A centre for all the arts

Waralungku Arts supports all art forms. The centre helped local band High Tide to organise a tour to Hodgson Downs, Mataranka, Katherine and Tennant Creek during NAIDOC week.

High Tide was able to promote its tour with a music video made by the media group at Papulu Apparr-Kari Language Centre (PAK) in Tennant Creek. The arts centre organised the video shoot in Borroloola and out on the islands. Editing by PAK has produced a clip of a self-titled song with clever visuals, like fades from band members holding fishing spears to holding guitars, and a melody line that stays with you - "high tide, the band from the island".

High Tide first recorded at Borroloola as part of a six week course in contemporary music with trainers from Charles Darwin University. That was in 2002 when band members were among the participants in the Barkly Arts music program, run from Tennant Creek. Another two bands – the Sandridge Band and the Robinson River Band - and individuals also recorded songs.

The six young people who make up the Sandridge Band are now receiving training in performance skills. The band makes regular appearances at the Borroloola pub.

A Battle of the Bands competition was held during the rodeo in August, a key event on the Borroloola calendar. With $1,500 in prize money, Waralungku drew six entries from around the Gulf region and from Canberra and Tennant Creek. A Cairns-based hip hop reggae outfit also performed for the large crowd. Waralungku will build on this success next year.

Waralungku Arts has a strategy of tapping into infrastructure and making links with organisations in areas where there are family connections - into the Barkly region (which explains this saltwater participation in the Desert Mob exhibition) and also across the Gulf.

Borroloola women are strong in their traditional dances and in May, six women went on tour through eastern Queensland with dancers from Mornington Island. Borroloola people have cultural and family connections with Mornington Island. It was three weeks on the road, performing in schools, universities, arts centres and women's centres in Brisbane, Cherborg, Woodfood, Corray, Nungenna and other communities on the Sunshine Coast.

The Borroloola women, performing as the Ngadiji Dancers, complemented the Mornington Island troupe, which is mostly male and so strong in performing men's dances.

The Mornington Island dancers have extensive experience in performing and touring. They also bring well established networks. Well before the tour, a group from the island visited Borroloola and stayed at an outstation for two days, dancing and leading talk about developing a show.

The Ngadiji Dancers have been dancing for years and toured once before. For years, they've been talking of touring again. The Arts Centre has been the catalyst, taking the group to the next stage in its development. Waralungku Arts is a point of contact and has sourced money for travel, run workshops and provided organisational support. The Arts Centre is a catalyst to the next stage of development for all the arts.

Working for her art

Madeline Dirdi joined Waralungku Arts as assistant coordinator in June 2003. "I've always wanted to work in the arts industry", she says. The idea started when Madeline got A grades for her arts subjects while a schoolgirl at Kormilda College in Darwin.

Dirdi greets artists and visitors, catalogues and prices artwork, and generally keeps the stock in order. "So if there is a buyer and we sell to him, we have all the information in the computer."

Dirdi has an apprenticeship under the Structured Training Employment Program (STEP) and is studying for the certificate II in museum practice at Batchelor Institute of Indigenous Tertiary Education. The course takes her on visits to other art centres and to Nyinkka Nyunyu cultural centre in Tennant Creek for site work training.

Madeline is continuing her own art practice and entered the Telstra National Aboriginal and Torres Strait Islander Art Awards with a striking screen print of a magpie goose. Currently, her work is printed at Batchelor Institute. Waralungku Arts now owns equipment for screen printing on paper and on cloth. The next step is to have a trainer visit to set up and hold artists' workshops.

Brought up in Gunbalanya, her father's community, Madeline returned to her mother's home when she married a man from Borroloola. She is the very proud mum of Mackewan, 12, who plays with the Borroloola Cyclones, a junior soccer team that lives up to its name. Her daughter Tiffany is 11 and Vicki is 6.

Story and photos by Kathie Rea

A swimming success:

You are eight years old and it is another 40 degree day in your remote community. Way too hot for playing footy. The dogs are hogging all the shade in the yard. Inside the house, there's no breeze and your big brother has taken over the couch. The play equipment, a long dash away across hot open ground, burns your skin. You are flopped on the verandah, dreaming about jumping into the cool sparkling blue water of a swimming pool.

In this article Hannah Hueneke looks at how some communities have gone about building a swimming pool, and how swimming pools can be good for your health and well-being.

A pool seems like an impossible dream for many communities. Indeed, it is a very expensive and water-hungry project that could take years to achieve. A pool also requires an ongoing commitment to find money for maintenance and supervision. But it's not impossible – some communities have realised their dream. School means pool, so kids are turning up to lessons. Young women enjoy the evening pool parties held fortnightly. Local people are employed to maintain the filters and chlorination, while others remember with pride their role in its construction.

People in communities want pools for a lot of good reasons – happier kids, higher school attendance rates and community pride, to name a few. However, an unexpected but very welcome extra benefit has emerged: rapid and significant improvements in children's health, as shown in a recent study by the Telethon Institute for Child Health Research in Western Australia. *(see box 1, page 10)*

Mary Tennant, a population sciences researcher in the Aboriginal health section at the Institute, explains that ear disease is a disease of poverty – due mainly to overcrowding, lack of access to clean water and living in dry, dusty environments. Not only is ear disease painful but recurrent ear disease can lead to perforation of the ear drum which can in turn cause hearing loss – disadvantaging people well into adulthood. By reducing rates of ear disease, swimming pools provide lifelong benefits.

Another health problem that can be addressed by swimming pools is skin sores, which Tennant points out, also can lead to longer term illness: "Skin sores grow Group A streptococcus which is a causative organism for rheumatic heart disease, and Aboriginal children in remote locations of Australia have high rates of this potentially fatal disease. It is also the causative organism for glomerular nephritis which can lead to end stage renal disease in adults. And that means dialysis."

As the statistics in box 1 show, swimming pools can make a big difference in reducing the number of children getting sick from these diseases. "During the study the kids were dunking in this lovely chlorinated water almost daily, and the bugs were being washed away," Tennant explains. But the positive impact of a swimming pool isn't confined to reductions in rates of disease. "Other benefits we have found are an improvement in social circumstances," Tennant says. "Kids were attending school more often, they had a social meeting place, the crime rates dropped. In the communities that we went to they're finding that it's terrible now in the winter because the kids have nothing to do."

So how did these small, remote communities manage to build swimming pools? Each has a different story.

Building a pool

In recent years, three large pools were built with funding from the WA Department of Housing and Works and are managed by the Royal Lifesaving Society, which provides a full-time caretaker/supervisor at each pool.

At Areyonga, in Central Australia, there was a quite different story. Here the community took the initiative and found resources to fund, construct, maintain and supervise their own swimming pool. Areyonga's pool story began in 1996 when the people drew up a wish list of how they wanted to improve their community. People raised capital infrastructure grants for projects such as relocating the loud, smelly power station from the centre of town and building new houses. Via clever money-saving strategies, such as employing local labour whenever possible, buying bulk construction materials and working on several projects at the one time, the community managed to make good savings on the works. Each time they made a saving, they tucked it away for the swimming pool. The full story of Areyonga's unique




communities building and running pools

approach to achieving community goals is recorded in a Best Practice video and booklet produced by the Northern Territory Department of Local Government.

Ngukurr, on the Roper River in South East Arnhem Land, provides another example of how long-term community commitment and dedication to a shared goal can achieve success. To get the pool at Ngukurr, everyone involved in the CDEP program (about 350 people) gave $2 from their weekly pay for a period of two years. This covered about a quarter of the cost of building a four-pool swimming complex. The community raised the remaining funds by applying for grants.

Using a different strategy, the Western Australian communities of Papulankutja, Warakurna and Warburton built their pools using profits from the community store, again in combination with various grants. In Woorabinda, in Queensland, a 20% surcharge was placed on all alcohol sold at the local licensed premises. This gave a deposit after two years and within four years the pool was paid off. The WA Department of Aboriginal Affairs gave $130,000 at the completion of the pool for the amenities block. As these examples show, it may be easier to get government grants if the community has already demonstrated commitment by saving a reasonable part of the funds.

Maintaining a pool

So what happens after you have built the pool – can you just sit back, relax, and dabble your toes in the cool blue water? Unfortunately, no. Building the pool is only one part of the total effort and cost. To make sure the pool stays a health asset, and not a risk, it has to be well maintained and supervised. Maintenance and supervision will cost a fair bit of money. Here again communities have come up with innovative ways to cover these costs and keep their pools open. At Areyonga, the pool workers are paid with money collected from entrance fees and kiosk profits, and the community council has committed part of the profits from the community store for repairs and maintenance (estimated at up to $15,000 per year). At Yuendumu, funds from the youth program (mainly from selling hamburgers and soft drinks at the disco) go towards pool maintenance. At Pularumpi, the CDEP scheme covers the caretaker salary.

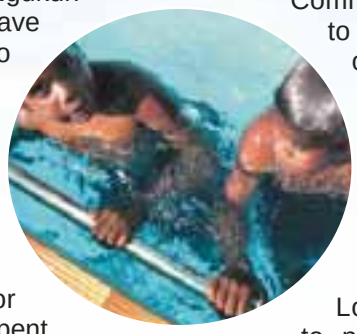
Both Areyonga and Ngukurr communities had to have a strong commitment to achieve their goal. In Areyonga, this meant that lesser goals, such as purchasing Toyotas for the community, had to be put off. At Ngukurr, at one stage, money saved up for the pool had to be spent on a housing project that the community deemed more urgent. In both communities, it took years of work to have the pools built. And they have had to make a long term commitment to funding maintenance, repairs and supervision. They know the pool will always cost the community money – up to $15,000 each year at Areyonga. It will always require a trained supervisor/lifeguard to prevent drowning. This ongoing commitment is best talked through before the pool is built.

With commitment, research, and planning, a swimming pool is an achievable goal that brings real benefits for children's health and community wellbeing.

Opportunity in the NT

Remote communities in the Northern Territory may apply to participate in a new Pools in Remote Areas (PIRA) program. The program is aimed at health and education benefits, and would bring livelihood opportunities.

To be eligible, communities have to agree to take part in a study into the health and other effects of regular pool use and to participate in a training scheme that will allow local residents to be part of running the pool day-to-day.



Communities would have to provide one third of overall construction costs, although this can include in-kind contributions. The NT Government and Commonwealth Government pay the other two-thirds. Local councils have to put in the application. Communities have to supply a strong business plan that describes how the pool will be managed and maintained in the long term. No funding will be available for pool operation or repairs.

For more information, contact your regional office of the Department of Community Development, Sport and Cultural Affairs.

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Box 1

Improvements in children's health

Children in remote communities often suffer high rates of skin sores which contribute to the prevalence of chronic renal disease and rheumatic heart disease. Children also suffer from very high rates of middle ear infections, causing deafness that seriously affects the education and quality of life of both children and adults.

A study team at the Telethon Institute for Child Health Research at the University of Western Australia looked at rates of skin sores and middle ear infections in two communities before and after pools were built. The results showed that 18 months after the pools opened, prevalence of skin sores fell from 62% to 18% in one community and from 70% to 20% in the other. Prevalence of severe middle ear disease fell from 32% in both communities to 13% in one and 18% in the other. These figures represent real and dramatic improvements in the quality of life of children in these communities. In an article published in the *British Medical Journal*, the study team observes that while programs for housing, sanitation, nutrition, education and health care are vital, "consideration should also be given to building and maintaining swimming pools". "The costs involved will be a small price to pay for the reduction in severe chronic disease and improved health, educational, and social outcomes."

Reference: "Benefits of swimming pools in two remote Aboriginal communities in Western Australia: intervention study", British Medical Journal, volume 237, 23 August 2003. It is available online at: http://bmj.bmjjournals.com/cgi/reprint/327/7412/415

FEASIBILITY: Who pays for maintenance?

Good maintenance is essential to keep the pool safe and open for swimming. However, it can be costly. Remoteness, water quality, pool and filter type, and choice of chemicals all can affect costs. Annual costs are generally around $10,000 but can be up to $45,000. On top of that, caretaker/supervisor salaries might be around $30,000 per year. One of the most important things when considering building a pool is to think about how this maintenance will be funded each year. See the main story for a look at ways other communities have managed this.

FEASIBILITY: Is there enough water?

When thinking about a pool, check if the community's water supply is adequate. A 25 metre pool could use up to 4,000,000 litres of water per year. In a community of 500, this works out to a relatively small proportion of total usage, at around 22 litres per person per day.

As well as water supply, you will need to consider how you will deal with backwash water (from cleaning filters or when the pool is emptied for maintenance). Backwash water cannot be released into a septic tank or onto the ground surface. It must go into a community sewerage system, a common effluent system, a piped stormwater drainage system, or, if none of these are available, the water can be safely discharged into a specially constructed absorption or evaporation trench.

Communities with swimming pools:

There are pools at Ngukurr, Nauiyu Nambiyu, Areyonga, Pularumpi, Santa Teresa, Yuendumu and Wadeye in the Northern Territory, at Papulankutja, Warakurna, Warburton, Jigalong, Yandeyarra, Burringurrah and Karalundi in WA, and at Cherbourg, Kowanyama, Laura Town, Thursday Island and Woorabinda in Queensland.

For more information

A useful starting-point for investigating the feasibility of a swimming pool is a CAT paper called *Swimming pools in remote Indigenous communities: Some basic information for planning a pool*. This was produced in collaboration with the National Centre for Epidemiology and Population Health at the Australian National University.

The publication has four sections. In the first, some of the health risks and benefits of a pool are outlined. The second outlines results from a survey on how pools were built and are run in communities throughout Central Australia. The third section is an investigation of the technical issues. Lastly, it contains an assessment of the feasibility of monitoring water quality. The paper is available online at: http://eprints.anu.edu.au/archive/00000318, or contact CAT; telephone (08) 8951 4311, and ask for a copy to be posted to you, free of charge.

Another starting point is the *Best Practice: Swimming Pools* video and booklet, which features Areyonga. It is available from the NT Government; telephone (08) 8999 8458.




No easy answers out bush

Here's a story about a community that is on the edge. From a service provider's point of view it is as tough as it gets but for the people who live there it is home. Michael Martin asks: What, if anything, should be done to help?

There's a two hectare block of land with six houses on it, and a community hall. The houses are almost 20 years old but are still habitable. There's a reticulated water supply and a community generator. Two kilometres down the road is a township with a pub, general store and a handful of houses. Around 50 people live more or less permanently in the area, with a lot of to-ing and fro-ing to nearby, larger centres. Some people live in the community houses; others in caravans and bush shelters on freehold blocks in the township. The capital city media would have a field-day: 'third-world living conditions' everywhere you look.

Residents are not paying any rent or 'chuck in' towards the upkeep of the houses and infrastructure. There is no functional community organisation to grant funds to, and no managerial capacity in the community. When something needs fixing, the most vocal residents just head to town and knock on agency doors until someone coughs up. Someone usually does, because the needs are obvious, but it is a frustrating process on both sides. The residents feel aggrieved that they have to beg for what are obviously basic rights, and the service providers feel bad about applying another bandaid that they know will soon fall off.

CAT has been a player in this situation for the past two years. We were asked to manage a program of repairs and upgrades to the community houses and to try to build some 'community capacity' for self-management. We had optimistic goals about getting the community corporation up and running, establishing maintenance regimes and annual budgets, and agreeing responsibilities between the residents and service providers. The houses and infrastructure are now in marginally better condition than they were two years ago but, despite our best participatory methods, community capacity is still pretty much where it was.

In retrospect, this outcome isn't surprising. Due to the remoteness of the location, we could only afford to get there for a few days every few months. We had great community meetings where people made good, informed decisions and all sorts of agreements, but then we weren't there to assist in implementing those agreements.

So what happens next? Without further support, the facilities will deteriorate again. Perhaps people will decide that living there is just too hard, and they will move to larger communities where more services are available. That would make life easier for service providers but I think it is unlikely to happen. Numbers rise and fall, but people have been there continuously for 25 years. So for service providers, I don't think the challenges will go away. We can choose to do nothing but then we are rightly held responsible for people living in substandard conditions.

One way forward is to look at the 'building blocks of viability' proposed in *Our Place* number 21. How does this community stack up and does this give any clues as to where further interventions should be directed?

- **ASPIRATIONS** People have been consulted regularly over the years about their aspirations: why they want to live there and what they want for the future. Their responses are consistent. They want to live there because it is their country where they belong. They want a small, quiet community where kids can grow up in safety. They want other community members who live elsewhere to come back.
- **INFRASTRUCTURE** Basic housing and infrastructure are available in the community. Improvements are needed, but this isn't the main problem.
- **SERVICES** Basic services are available. The one-classroom school is excellent, there is a regular RFDS clinic, and basic supplies are available from the store. Transport is a problem but some people do manage to buy private vehicles.
- **LIVELIHOOD ACTIVITY** People have access to a CDEP program, although it is managed from a distance so supervision is lacking. People go hunting and do some arts work. There is potential for some employment by the local shire, and on surrounding pastoral properties.

These four building blocks tell us why people are there. The next three tell us why it is a difficult situation for service providers.

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No easy answers

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• **VULNERABILITY** There is constant tension between different families. The usual way people deal with this is to leave the community for some time. This coming and going makes community management difficult.

• **ASSETS AND RESOURCE FLOWS** This is clearly part of the problem. People are not contributing to maintenance of the community infrastructure. This leads to regular failure of infrastructure and to a feeling of vulnerability. The lack of a community organisation makes it hard for external resources to be provided.

• **GOVERNANCE** The heart of the matter. People do not have the experience or skills to work together to make and implement decisions about collective management of the community.

A way forward is to provide some sustained, regular support on community governance. I don't mean training in how to run meetings. I mean establishing functional arrangements for making and implementing decisions and allocating resources. This is not something that the residents can do on their own but it is also not something that can be done by a contracted service provider in another place. What is needed is a support model that carries out functions that the residents can't do, such as financial management and procurement, while engaging the residents in the things they have to do, like paying some rent. Somehow or other, the governance arrangements need to incorporate the needs of people living in the township too. It would make sense to provide this support through existing local networks such as the school, township businesses and the CDEP.

Of course it comes back to money. Who is going to pay for this governance support? In the current climate, I really don't know. Without it, though, the problems won't go away.

There are no easy answers out bush.

Michael Martin is a project officer engineer with CAT, based in Cairns.

The pace-setter

CELESTINE Rowe was selected for work experience at the Granites gold mine after being a runaway success in the beginner's class in Automotive at CAT. Lecturer Trevor Haddon said the one girl in his class was way out in front.

Celestine has long been interested in mechanics. When she was working on a cattle station, she was always trying to help with the cars. That's man's work, she was told, there's work for you indoors, cooking and cleaning.

Celestine said she started the automotive course just to learn more about cars. "If my car breaks down, I can either fix it myself or make sure I don't get ripped off by mechanics just because I'm a girl." Now she has bigger ambitions. "I would like to set up a car workshop in my family's country west of Alice Springs and teach other people."

The way ahead wasn't always so promising and Celestine now hopes she can encourage others. "I tried hospitality for some years and got tired of it. So I changed my job preference to mechanics. There is always something better if you don't like the first work you try."

The schoolgirl netball and athletics champion also has been writing stories and poems for years. "Poetry for me is the way to help express my deep feelings and thoughts on all the drama that goes on around me." Over the past year she has summoned up the courage to read her poetry out loud, at a national writer's festival in Sydney and a NAIDOC event in Alice Springs.

Celestine drew on that reserve of courage again to go underground at the Granites gold mine. Twice she went underground with dump truck drivers to get a load. "I was very scared the first time, wondering what if I can't breathe?" The heavy trucks travel down tunnels with a mere half-metre's grace on each side. Celestine overcame her fear and spent a whole day underground with the underground fitter, working on heavy and light vehicles.

She saw the work of the mine first hand – the huge underground drill, the bogger grabbing rocks to be carried in trucks to the surface.

Celestine spent her two weeks of work experience in role of 'light vehicle fitter' at Dead Bullock Soak Workshop. "I was the first female fitter they'd seen. I told them not to treat me any different. I wanted to see how I went."

She didn't find it hard to get up at 4am for a 6am start. Along with everyone else, Celestine worked a 12 hour shift with three breaks. People fly in from all over Australia to work two weeks on, one week off, rotating through a week of day shift and a week of night shift before a week off. Celestine worked two night shifts which was hard she said, but she's confident she'll get used to it.

Celestine describes the food in the staff canteen as lovely. She had her own room in a row of rooms. After work she watched television in the TV room or went to the social club, where she hung out with her work mates, all men, who looked out for her. There were some women at the social club who worked in the kitchens or as drivers or cleaners. "How come you're with them," they'd ask, "what are you working as?" "I'm a fitter," Celestine told them. "Ah, that's it then."

Celestine was keen to get back to the mine. "They reckon they got faith in me," she said, "the supervisors, all my workmates."

Celestine Rowe and Jimmy Tsavaris recently completed the certificates I and II in Automotive at CAT. In the break between courses, they completed two weeks on-site work experience at the Callie underground mine site at the Granites, NT. The Central Land Council is collaborating with Newmont to place Aboriginal people at the mine. Celestine and Jimmy are now fitter apprentices at the Granites. *Our Place* asked them about the choices they've made.

and the natural

WHEN it comes to mechanics, he's a natural, Jimmy Tsavaris, and a man with a plan, or several, which he lays out with a shy and winning confidence.

Jimmy hopes one day to have his own business, to set up an auto shop, and study to gain qualifications as a panel beater and spray painter.

For now, he's very happy to be heading back to Granites. He has a fascination for heavy vehicles, particularly the huge heavy dippers that have cabin fronts the width of a house.

Jimmy says it was when he was in Tennant Creek last year, going bush with Julalikari CDEP on construction and fencing projects, that he did some thinking. "I looked at where my life was going. I realised I wanted to get a qualification, get back to working with tools. I didn't want to go through life without a certificate."

"When I started the first certificate course, I found I knew a bit much. It felt like I was a second assistant to Trevor." It was CAT lecturer Trevor Haddon who dubbed Jimmy 'the natural'.

He may or may not have been born to it but Jimmy has had motor oil under his fingernails since he was a boy. His father, Andrew, was a motor mechanic: "He inspired me. I always worked on his cars." Jimmy was just 10 when he started helping with rebuilds on cars at home. Andrew Tsavaris had a small business in Tennant Creek, Tsavaris Mobile Mechanicals.

And just when you start thinking that Jimmy's role models are all mechanics, he tells you about his mum, Doris Tsavaris (formerly Curtis). She brought me up on her own until I was 10, he says proudly. Doris worked in the hospital at Tennant Creek, then for Territory Housing and now Corrections. "She's a smart lady", her son says. "She taught me how to cook, how to clean, how to look after myself." At 17 he was living independently in Alice Springs, working at an automotive shop.

Later, Jimmy went back home to Ali Curing to help his parents in the bakery business started by his grandfather. But, while in Alice Springs, he had worked on heavy vehicles and got the bug.

Working on the mines

"It's a goal I've wanted, to go to the mines", Jimmy says. "I told Trevor but I was really surprised when one day he rings me up and says, so do you want to go to the mines? I said yes, for sure. That was Granites."

Was the mine like you expected?
"The mine was totally different to how I'd guessed it would be. There's an underground mine and an open cut. I had thought the hole would be right there, outside where we were staying. The open cut was 30kms away and the underground mine 150 kms away. We'd start work at 5.15am, when we got on the bus to go to the closed mine."

What's so attractive about they mines? The money?
"The money is part of it, the money is good. I was happy out there (on work experience). Everyone welcomes you with open arms; it's like a family. There are about 15 Aboriginal people there and that's good but it's everyone who is welcoming. There are people from overseas - Zimbabwe, Ireland, Scotland - and from all over Australia – Queensland, Perth, South Australia, Darwin, Kununurra."

Does you have any advice for others considering mechanics?
"You have to be really keen on it and, if you are, stick with it. There's a lot of good options. You could become someone like Trevor, become a lecturer, or try to get a job in the automotive industry."

And does he have a car himself? "Did you see my car, the blue XD, it's kind of wild," Jimmy says, grinning. He bought the Ford Falcon from some tourists when he was 15. It had broken down and they sold it to him for $1000. Jimmy rebuilt the car with a faster engine and gave it a unique paint job. Next he plans to work on the interior and then another spray paint and then there's some additions he's got in mind. Plans and more plans.

Kathie Rea

Photos: Celestine Rowe and Jimmy Tsavaris in the CAT automotive workshop

Prevention and cure

In the Kimberley, roads that are not formed above surrounding terrain will become rivers during the wet.

The importance of a well designed and well maintained internal road is evident to those living at its edge. A community's internal roads can be an asset or a liability. How well a road performs has a lot to do with how well it is formed to begin with. But preventative maintenance will always pay off. Some jobs, like clearing out culverts, require no special skills. Other jobs – road patching, curbing and speed humps - can be a cost effective CDEP project and are the subject of an upcoming BUSH TECH. Here Trevor Webb explains the role of preventative maintenance.

Road inspections

Internal roads should be inspected each month by someone who is aware of the importance of preventative maintenance. The inspector's reports will identify emergency works to be carried out quickly and preventative maintenance to be prioritised with service organisations.

Road conditions can affect:
- human health (eye, ear, throat, lungs, skin)
- safety (vehicle, pedestrians, animals)
- environment (plants and waterways)
- wear and tear on vehicles
- longevity of roads.

Inspection reports would include the date and the inspector's name, and should document and prioritise work requirements under these headings:
- drainage and erosion
- dust abatement
- vegetation growth into
- pavement / onto curbs
- speed-hump condition
- signage condition and requirements
- curbing condition
- pavement potholes
- pavement lamination
- road verges
- road shoulders
- road sweeping requirements.

A standard report sheet will encourage accurate and consistent records.

With regular inspection reports, decisions can be made about the maintenance work to be done, in what order it needs to be done and who will do it.

Dust Control

Dust from an unsealed community road contributes to poor housekeeping, ill health, reduced road safety, increased wear and tear on vehicles, and greater road deterioration.

The prime factors for the creation of dust from unsealed roads are a 'loose' surface and strong, dry winds due to natural elements, but in particular, air currents caused by fast-moving vehicles. Climate is also a major factor; for example, the hot and dry areas of the Kimberley are more prone to dust generation in the dry season.

Airborne dust contains soil, exhaust soot, lint, pollens, animal matter, minute particles from brake linings and tyres, fungi, heavy metals, cancer-causing toxic substances, bacteria and viruses. These contaminants are a hazard to all those who live within the 500 metre corridor of a road, causing breathing and sight ailments (eye, ear, throat and lung diseases), viruses and skin ailments.

Short of sealing all community roads with a bituminous surface, there is no way to totally prevent dust emissions. For low-volume, low-cost roads, sealing is usually not economically feasible. Other less satisfactory methods must be used to reduce the amount of dust emissions from unsealed roads. Dust control methods fall into four main categories.

Construction and maintenance practices
This relates to the original design and construction of a road, which is usually determined by the funding available. Ongoing maintenance can repair faults before they cause a major degeneration of the road surface.

Barriers
Bunds of earth, trees and shrubs between a road and housing has been shown to reduce the penetration of sound and dust pollution.

Mechanical stabilisation
Unsealed areas of heavy use can be cement stabilised as shown on the t-junction (below). The mixing of 2-3% cement with the road sheeting followed by compaction will reduce wear and dust.

Chemical dust suppressants
There are many dust suppressants on the market that can be used during road construction or sprayed onto an existing road using a water truck:
- binders for humid conditions and heavily-travelled roads
- lignosulfonates for arid conditions
- petroleum-based products for long-term treatment of roads with light traffic.

Chemical dust suppressants are affected by road base material and weather conditions, providing only limited life.

Dust control - Cement stabilised road junction.

- maintaining internal roads

Road sweeping

It is recommended that sealed internal roads are swept three to four times a year – in the Kimberley, immediately after the wet season and then a further few times or more depending on sand and silt build-up.

Brooms are required to sweep away the build-up of sand and other rubbish on the road surface, particularly near kerbing or on corners. If this build-up is left on the road, traffic pounds it into the surface of the bitumen, causing damage to the surface, and eventually potholes.

A build-up of soil and rubbish also increases wear and tear on vehicles, becomes a hazard for vehicles and pedestrians and leads to increased airborne dust.

If required, bitumen patching work could be carried out in conjunction with internal road sweeping. This will be covered in an upcoming BUSH TECH.

Signage

Signs within communities will slow down traffic. People can walk more safely and less dust will be produced.

Other signs will assist in preventing damage to unsealed access roads. In the Kimberley, it is important to reduce unnecessary traffic on unsealed community access roads because of the heavy wet seasons and poor subsoils. Unsealed roads with a pindan or blacksoil sub-base often suffer expensive damage each year from heavy traffic after the wet season has begun. Due to geological and geographical restrictions, it is often hard to access top quality road-sheeting materials.

Unsealed roads in the Kimberley are prone to heavy water damage on a regular basis. Stopping traffic on unsealed roads to give them time to dry out and form a firm pavement can reduce this. Communities will benefit from closing their access roads to heavy vehicles for a short time after heavy rain to prevent needless damage.

How a road performs has a lot to do with how well it is formed

Poor drainage and shoulder maintenance will lead to roadside erosion as rising or receding floodwaters eat away the soil.

Drainage and shoulders

Too often, this critical issue is ignored when building and maintaining local roads. When drainage is poor, the best efforts to rehabilitate or maintain roads will bring disappointing results, especially in the Kimberley where the wet season can repeatedly destroy roads.

As always, the outcomes of a roads program directly relate to the funds that are budgeted towards it. Roads that are not formed above surrounding terrain will become rivers during the wet. Poor drainage and shoulder maintenance will lead to erosion of roads.

When water can be drained off roads and out of their sub-base roadbed soils, the road will invariably become easier to maintain and reduce damage to both sealed and unsealed surfaces. Keeping the shoulders and road verges formed and clear of vegetation will enable water to be carried away from the road.

Many of our surface problems come from wet and weak soil conditions below the road. Since gravel roads generally carry low volumes of traffic and do not have large budget allocations for maintenance, we must do what it takes to re-establish and / or keep drainage working on gravel roads. These drainage methods include form, bunds, spoon-drains, drains, ditches and culverts.

Roadside ditches or spoon-drains can become obstructed from eroded soil or debris. They must be cleaned at regular intervals to ensure water runoff does not back-up and soak the road's base course. Failure to do this will cause unsealed roads to become an impassable, boggy mess and sealed roads to have a separation or de-lamination of the seal from the sub-course, which will eventually promote large potholes.

Culverts will only operate efficiently if they are cleaned out on a regular basis.

Road maintenance for CDEP projects is the subject of an upcoming BUSH TECH information sheet.

BUSH TECH #14 contains more information on dust control. See the CAT website at www.icat.org.au, or telephone (08) 8951 4311 and ask for a copy to be posted to you.

Trevor Webb is Project Officer with CAT Derby.

What difference does it make?

How do we measure the impact of community organisations and programs? In continuing the series of articles in *Our Place* on the viability of remote communities, we look at impact. As described in *Our Place* 21 and 22, 'viability' is critically important to Indigenous people and to agencies and service providers working with outstations and homelands. For people to work out how their community might become more viable in the future and to argue for greater support, they have to be able to demonstrate the likely impact of any investment in housing, infrastructure, training or governance. This starts with identifying and measuring impacts.

Knowing what impact is

The concept of impact remains hazy in the minds of many program staff required to report on the work they have done and the resulting achievements. Impact can be defined as the range of positive and negative changes affecting a group of people and which are brought about by an intervention from outside. An 'intervention' is a change in policy, technical, economic, governance or other influences on a group of people.

An example will show these definitions in practice. Suppose that a grant is made by a government department to the community council to renovate the derelict community hall so that it can be used again. The grant carries some conditions, such as the way in which the work is done (mainly by CDEP), a requirement that training should be a part of the project and a date by when the work should be completed.

The impact of the project is the chain of direct and indirect, positive and negative effects on the people affected by the hall. Even in this example, they may be complex, as shown in the diagram below.

Why assessing impact counts

When it comes to remote communities, too many people make too many assumptions about programs based on limited knowledge. When a program is finished, we tend to move on to the next one without a proper consideration of what has been learnt along the way.

Without gaining these insights, outsiders make snap judgements about the value of a program. This harms future programs. It is all too easy to visit a deserted community facility that looks neglected and then assume that it was a waste of money, when a closer measure of the impact could reveal training benefits for the people who learnt how to build it, regular use by groups visiting the area to spend time with relations, a space where the council can meet, the only public location for the telephone, a kids play room in the wet season and so on. Tracing these impacts takes time and skill. Jumping to conclusions is much easier.

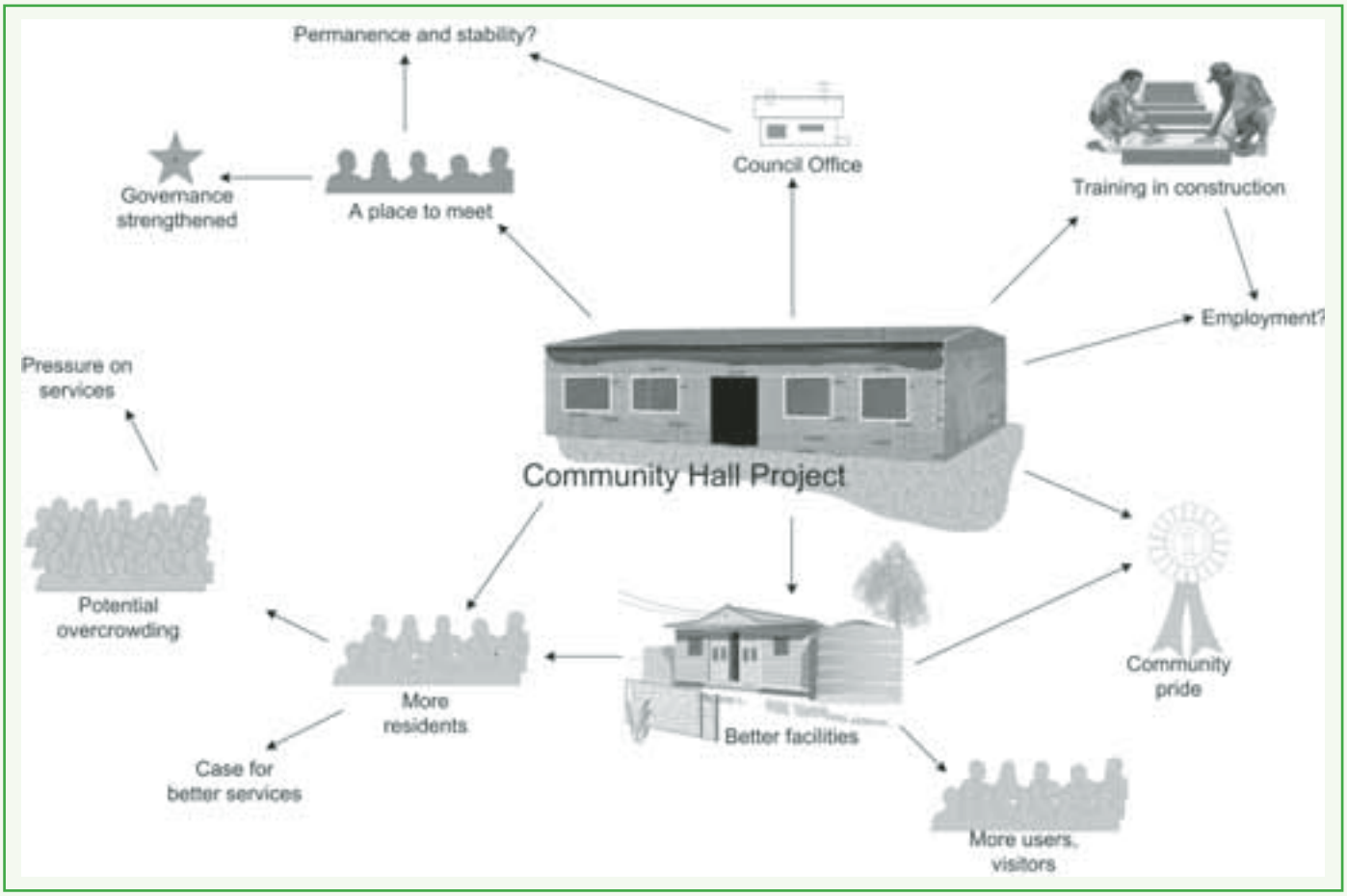


Illustration: Joanne Simpson

The principles of impact assessment

For impact to be measured effectively, projects and programs should be designed in such a way that the results of the work are clear at the outset. People affected by the work should be involved in defining the objectives and the indicators of change that they would like to see achieved. There should be a single defined purpose of the project, behind which several objectives can be organised. Using the example of the community hall again, this could be described as shown on the right.

One method of designing projects to achieve defined objectives and to provide for measurement of impact is the logical framework, which follows an approach based on defined objectives, measurable indicators and a means of measuring each. The diagram on the right presents the principles of a logical framework approach.

Secure transport routes make a difference in many ways. At Mary Pool in the Kimberley.

Community hall project

Purpose: To strengthen the capacity of Community A to undertake projects

Objectives:

1. To renovate the community hall
2. To involve ten community members in the project
3. To enable five people to complete a training course in building maintenance.
4. To encourage more people to live in the community, making use of under-used facilities and supporting the case for better services.
5. To provide an opportunity for the community council to oversee improvements to housing and infrastructure, starting with a single project.

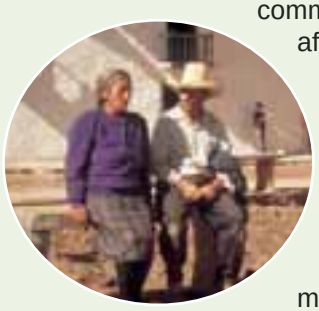
ACTIVITY ⇩	*The work of a project or program*	*Example:* *Homemakers program* *Training program*
OUTPUT ⇩	*A tangible result, expressed as a quantity*	*Example:* *Three training courses delivered* *A solar energy system installed* *Information provided on choices of toilet*
OUTCOME	*A change in characteristics, often expressed as a quality but also able to be measured as a numeric change* *For outputs to achieve outcomes, other factors play a part, such as opportunity, support, policy, funding.*	*Examples:* *Well-being* *Capacity* *Safety* *Happiness* *Skills*

Case Study 1

Social benefits of lighting

A good example of the challenges of accounting for quality improvements comes from Nepal. A consultant carried out an evaluation of some small power-generation projects serving mountain villages. In addition to the conventional economic analysis of costs and benefits, a major conclusion that he reached was that the villagers valued the importance to the community of being able to walk the streets safely after dark due to street lighting and the stronger sense of community brought about by people being able to meet and talk under the lamps.

A similar story from another continent is where teachers in one Andean village noticed that the grades of schoolchildren improved when electric lighting came to the community as they found it much easier to do their homework at night.



Peruvian villagers in a public meeting place.

Satellite television is shared in the village square.

Photos courtesy ITDG

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Collecting the right information

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To measure the difference that a program makes, information must be collected. This is the hard part, especially in places where turnover of staff and mobility of community members is high. Information gathered needs to be useful in working out whether the outputs of the project have been achieved and then to what extent they contribute to the expected outcomes.

It is very easy for any project officer or project manager to concentrate only on the things that they can see, touch and photograph. Measurement is by its nature *quantitative*. It measures numbers. But changes in quality of life do not easily translate into numbers on a grid or a balance sheet.

The best way to measure outcomes is to start by identifying positive and negative changes. Do this by recording what people say has happened in the community, even if it seems relatively minor or unconnected:

"The children play over there now"

"We don't go into town as much as we used to"

"We use the generator more at night"

"He's always messing around with the car engines"

"There are lots of meetings"

"We are thinking off getting another telephone and a fax machine".

Take the details away with you and think about what they say. Follow up with further questions. Often a snapshot or an anecdote (a short account of an experience) will speak volumes for what has happened locally. This change can often be traced back partly or wholly to the project. The skill and the excitement of measuring impact lies in hearing about and observing change.

In essence, the story of the impact of the project is told. The changes identified are then recorded as outcomes against the indicators defined at the beginning of the project. Wherever possible, these are measured as quantities (increases in dollars, changes in travel time, numbers of people, etc.). But where this is not feasible, such as for intangibles, then impacts are described in words. For example, "since the fence was erected, several families said that they noticed that more bush tucker was available".

Steps in the right direction

For Indigenous organisations and programs, great strides towards better impact assessment will come from getting the basics right in the first place. Even if funders are only interested in ticking the box marked 'output achieved within budget', program staff need to put greater effort into gauging impact. It is one firm way to tip the balance of policy and funding towards recognising the demand for services and the benefits that people value, rather than simply working out how best to deliver them. It underpins the work of achieving more viable remote communities.

Steve Fisher

Steve Fisher is Chief Operating Officer at CAT

Case Study 2

Bicycle trailers for small businesses.

Many uses for one good idea

Bicycles have long been the workhorse of many people living in rural areas of Asia. In Sri Lanka, engineers of international development agency ITDG introduced a cycle trailer, designed to be manufactured locally, as a means of increasing the load-carrying capacity of the bicycle, mainly for farmers and tradespeople. Since the trailer was made available on the market some 15 years ago, innovative users have found new ways to get the most benefit from it. There are now bicycle ambulances, mobile shops and even a library (see www.itdg.org). Many of the benefits of these new versions are not immediately apparent and certainly difficult to measure and to value.

Further reading

Enterprise Development Impact assessment Information Service (undated) *Basic impact assessment at the project level.* www.enterprise-impact.org.uk/word-files/CoreText2.doc

CARE (2000) *Impact Guidelines* www.kcenter.com/care/dme/default.htm

Enterprise Works Worldwide (2004) *Measuring results (website section)* www.enterpriseworks.org/progresults.asp

Simanovitz (2001) *Background paper for Virtual Meeting on Impact Methodologies.* www.ids.ac.uk/impact/howtodo/VirtualmeetingBg.doc

Fowler (2002) *Measuring non-tangible outcomes; the challenge for impact assessment.* Paper for ANU workshop of the same title. www.mande.co.uk/docs/Fowler%20Presentation.pdf

Hussain (2000) *Monitoring and evaluating impact on livelihoods; lessons from experience.* www.livelihoods.org/post/Docs/hus-ME01.rtf

Kinship of the guernsey

Centre Bounce: Football from Australia's Heart is an exhibition and also a beautifully produced book of black and white photographs that celebrate NT community football. In Jesse Marlow's photos, "I can see the red dirt earth, the eye-to-ball intensity of the players, the remote but totally familiar landscape", AFL champion Michael Long writes in a foreword to the book.

Victorian singer/songwriter Neil Murray writes of how he got his love for the game back when he went to Papunya. He felt completely accepted by teammates "superbly gifted at running, marking, dodging, weaving and knowing where their teammates were around them".

Marlow, a Melbourne photographer, travelled to Alice Springs, Daly River, Gunbalanya, Papunya, Titjikala, the Tiwi Islands and Yuendumu to capture moments at matches, training, sports weekends and grand finals.

The Centre Bounce exhibition, was at the Araluen Centre in Alice Springs earlier this year. Local champion Ryan Mallard took a look for *Our Place*.

"Jesse Marlow's photos capture the culture of footy from the perspective of Aboriginal communities. People just don't get to see this everyday. This is rural football.

Community footy is family, from kids to grandparents; wives, sisters, brothers. It's the pride of the community. The young look, listen and learn. Older people pass on what they know. Aunties have got more tips than the coach.

Rivalry is strong between teams. Family groups from the community put together teams, so there's a lot of pride in representing the team, wearing the guernsey. You represent your home, your family. You represent where you come from.

Jesse has captured all this, from the portraits to the crowd celebrations to the action photos and the team huddles. He's captured the innocence of football, just the playing of it. There are so many moments; seeing them together is very touching.

Being a team is about more than going to training twice and playing a game once a week. Sure you can go out and play a game but to really know how to back each other up on the field you've got to be a team. You've got to be like family.

The way that Jesse has taken the photos makes you feel you're standing there. In 'Team Huddle' (*top*), you're right there, just behind the players. The strong lighting in the exhibition really brings the photos to life.

In the photo 'On-field agility' (*left*)*, the feet on the grass are the centre of focus. Who is faster, the guy with the boots or the guy without? The player without is just about to evade, will he make it? Yes, but the other might just get his guernsey.

There's the team sitting in a row - 'Ntaria-Hermansburg Bulldogs concentrate in the rooms'. They look like a real footy team. It's like you're a fly on the wall. It's just before the start and they're thinking about their game.

In 'Sunset kick, Titjikala community' (*left*)*, Jesse has caught the fundamental action of kicking a football. The setting is a hard dirt ground. There's a boy doing a drop punt; no boots, no grass. It's a perfect drop of the ball; you can see where his foot is. It's straight out of the textbook. When you kick you need your whole body. His arm is out for balance. It looks off balance now but won't be when the foot comes through. It's the fundamental kicking style, how everyone does it. It doesn't matter who you are, where you are, in the big city or out in the bush."

Centre Bounce: Football from Australia's heart by Jesse Marlow. The book is published by Hardie Grant Books. RRP $39.95 paperback and $49.95 hardback. The exhibition of 40 framed, black and white photographs is managed for NT touring by Artback NT Arts Touring, www.artbacknt.com.au.

Ryan Mallard plays full forward with Pioneers and was 2003 Minahan Medallist in the Central Australian Football League. The CAFL teams play a round robin with the country teams at the Lightning Carnival at Easter. Ryan works as Information Technology Trainee at CAT.

** Full photographs not shown*

BUSH TECHS

BUSH TECHS tell you what we've learnt about working with technology in remote communities. Many are fact sheets.
Some summarise emerging issues.

BUSH TECHS are published in each issue of *Our Place*.

Pullout BUSH TECHS #22: Used oil and #23: Waterless composting toilets from the centre of this issue.

#1 **Hot water**
#2 **Renewable energy**
#3 **Stormwater harvesting**
#4 **Rainwater harvesting**
#5 **Gas fittings**
#6 **Carbon farming**
#7 **Feasibility of gas and dual fuel**
#8 **How to get a telephone**
#9 **Disinfecting a rainwater tank**
#10 **Creek crossings**
#11 **Maintaining your air conditioner**
#12 **Choosing the right door**
#13 **Choosing a landfill method**
#14 **Dust control**
#15 **Choosing the right toilet**
#16 **House warming**
#17 **Landfill design**
#18 **Pit toilets**
#19 **Maintaining your tip**
#20 **Local radio networks**
#21 **Water bores**
#22 **Used oil**
#23 **Waterless composting toilets**

For a **free** copy of a BUSH TECH or TECH POSTER, please telephone CAT on (08) 8951 4311.

TECH POSTERS

#1 **How to look after your bore**
#2 **When it's time to change the oil**
(inside this issue)

For a **free** copy of a BUSH TECH or TECH POSTER, please telephone CAT on (08) 8951 4311.

HEAVY METAL

The Bush 'Microwave' has a fire-box underneath and is constructed with hollow walls. The heat flows up through the walls and out through the chimney. The fire-box is insulated to maintain heat transfer and the door seals the heat. It weights 75 kg so can be easily shifted undercover to avoid rain or wind.

Peter Howell in the CAT Workshop with a Bush Microwave he has just completed for a community in the Kimberley.

- East to transport
- Fuel efficient
- Compact and robust

From steel shelters to crowbars, the CAT Workshop manufactures bush-hardy products designed for remote locations. The workshop also can help with custom-made solutions to your queries.

Workshop products are for sale on a cost recovery basis. For specifications and prices, please telephone Linton Espie at CAT on:

Phone: (08) 8951 4311
Fax: (08) 8951 4333
Email: workshop@icat.org.au

***Our Place* Radio is broadcast on community radio stations across mainland Australia and in the Torres Strait Islands. You can tune into *Our Place* radio on these stations:**

CAAMA 8KIN FM, Alice Springs
Gadigal Information Service, Sydney
Nggaayatjarra Media, Wingellina, WA
Radio Larrakia, Darwin
Walpiri Media, Yuendumu, NT
3CR Melbourne
3KND Melbourne
4AAA Brisbane
4CLM Cairns
4K1G Townsville
4MOB Mt Isa
5NPY Media Umuwa, Pitjatjantjara Lands
5UMA Port Augusta
5UV Nunkuwarrin Yunti, Adelaide
6AR, Perth
6FX Fitzroy Crossing
6GME Broome
6PRK Halls Creek
6WR Kununurra
Mulba Radio, Port Hedland

BRACS stations in the Top End via TEABBA (Top End Aboriginal Bush Broadcasting Association); in the Pilbara and Kimberley via PAKAM (Pilbara and Kimberley Aboriginal Media Association); in the Torres Strait Islands on Moa Island, Yam Island and via TSIMA (TSI Media Association).

Other stations pick up the show via the National Indigenous Radio Service and TAPE, the Aboriginal Program Exchange.

The Our Place Radio show is now in its third year. Adrian Shaw produces a 20 minute report each fortnight, which presents the voices and perspectives of Indigenous people along with commentary on a technology theme.