

CASE STUDIES

CASE STUDY NO 1: THE BENEFITS OF WATER INFRASTRUCTURE DEVELOPMENT IN THE EMERALD AREA OF CENTRAL QUEENSLAND

Emerald - pre Fairbairn Dam

The Emerald District, when first settled in the 1860s, was predominantly a sheep and cattle area. This remained the case into the 1940s, although some small pockets of land were under irrigation. At that time, the population was less than 1,500 people.

During the late 1940s and through the 1950s investigations into the feasibility of a dam on the Nogoa River upstream of Emerald were in progress. By 1966, the population of the town of Emerald itself had only grown to be a little more than 2,000 people. At this time, Central Queensland had only 9,000 hectares under irrigation compared with in excess of 120,000 hectares for the whole State. In addition, the value of production in Central Queensland was 12% of that for the State. For the nine year period from 1952/53 to 1961/62, the growth in the Gross National Product was only 25% in this region. This compared unfavourably with the 37% growth exhibited in South Queensland and the 70% growth for North Queensland.

The Proposed Scheme

A report on the proposed water infrastructure and irrigation scheme for the Emerald Area was presented to Parliament in early 1968. The scheme, as proposed then included:

- the construction of Maraboon Dam (now Fairbairn Dam) to provide a supply of 147,600 megalitres/annum (120,000 acre feet/annum). This equated to a supply of about 95,940 megalitres/annum (65,000 acre feet/annum) delivered to the farms;
- the construction of a channel supply system on both the right and left banks of the Nogoa River; and,
- development of up to 130 farms with an area of not less than 182 hectares (450 acres) and an annual supply of 738 megalitres/annum (600 acre feet/annum).

The main objectives of the scheme as proposed included:

- Improving overall growth;
- Increasing and stabilising rural production;
- Drought mitigation; and,
- Increasing the population and business activity in the local area and Central Queensland region.

In 1968 implementation of the scheme was expected to;

- increase the gross value of production from the area directly affected by the dam (including new farms) from about \$198,000/ annum to between \$7.5 million/annum and \$5.5 million/annum, depending on which enterprises were adopted by the schemes users;
- increase the population of the local area by about 1,850 people (ie about double);
- result in the introduction of new processing and service industries in the area;
- mitigate the effects of drought; and
- provide new tourism and recreational opportunities for residents of inland Central Queensland.

Source: Report on Emerald Irrigation Project, Department of Primary Industries Irrigation and Water Supply Commission, January 1968

The scheme was later modified in the 1970s in recognition of the likelihood of significant demand for water in the Blackwater District with the opening up of the area's vast coal resources. The scheme, while largely maintaining its original elements, including the development of Fairbairn Dam, the channel system and the new farms, was therefore modified to include:

- construction of a new weir (Bingegang Weir) on the Mackenzie River at AMTD 489.1 kilometres (AMTM 303.6 miles);
- raising of the then existing Bedford Weir;
- initially restricting the volume of water available to the Emerald Irrigation Area to 100,086 megalitres (82,000 acre feet); and
- operating Fairbairn Dam in conjunction with these weirs to provide up to 63,960 megalitres/annum (52,000 acre feet/annum) for industrial use, along with some minor irrigation direct from the rivers.

The Scheme Today

The Development of the Fairbairn Dam and supporting water infrastructure is as follows:

- Fairbairn Dam was completed in 1971;
- Bedford Weir, was raised in 1997;
- Bingegang Weir, Stage 1 was completed in 1975 and later raised in 1998;
- Tartrus Weir, located on the Mackenzie River just downstream of the junction with the Isaac River, was completed in 1986;
- Selma and Weemah Channel Systems were completed in 1979, supplying some 94 farms with a total area of about 14,000 hectares; and
- 350 kilometres of regulated section of the Nogoia and Mackenzie rivers supplying an irrigated area of about 11,530 hectares.

Fairbairn Dam and the three weirs today operate as a system supplying licensees with allocations as follows:

- 168,713 megalitres/annum for irrigation of 24,650 hectares of channel and riparian river farms;
- 22,195 megalitres/annum for industrial and urban use of 12 coal mines and 6 towns; and
- 956 megalitres/annum for stock and domestic use.

The Benefits of the Scheme - Emerald Today

Central Queensland, and Emerald Shire in particular, have achieved considerable growth and prosperity since the scheme's development some 30 years ago. Some of this growth can be directly attributed to the expansion of irrigated farming in the area following completion of the Fairbairn Dam. As much, if not more, can be attributed to the expansion in mining in the area during that period. However, without the availability of reliable water, a significant proportion of this mining development would not have been possible. Nor therefore, would many of the secondary or supporting service industries that are now as much a part of Emerald as are the irrigation and mining industries.

Emerald today has a population of 11,000 people. Unemployment in the area has been maintained at levels below 5% for much of the 1990s despite considerable constraints, including the effects of drought.

The most obvious beneficiaries of the water infrastructure are the primary water users. In particular, cotton, peanuts and horticulture are all thriving. So too are the grain and beef industries, including the establishment of a number of feedlots. Coal mining, despite some difficult times in the industry itself, remains a significant component of the Emerald economy. Importantly, the Emerald Irrigation Scheme has enabled production and incomes to be stabilised. These benefits flow onto the secondary and supporting industries and consequently the community at large.

An obvious effect of the scheme has been the increased level in the range of goods and services available in Emerald. The Emerald community today enjoys access to a wide range of amenities that is clearly superior to that available in many of the surrounding districts. These include major retail shopping, a large number of government agencies, health and welfare services, education up to university level and services and sporting clubs. In addition, the opportunities from tourism and hospitality are now becoming more fully realised.

Table 1 shows a breakdown of the levels of employment in Emerald in a range of industry sectors

<i>Job Description</i>	<i>Number</i>	<i>Per Cent of Total</i>
Agriculture, Fishing & Forestry	688	10.6
Mining	1149	17.8
Manufacture	239	3.7
Electricity, Gas & Water Supply	44	0.7
Construction	459	7.1
Wholesale Trade	402	6.2
Retail Trade	796	12.3
Accommodation, Cafes & Restaurants	299	4.6
Transport & Storage	240	3.7
Communication Services	80	1.2
Finance, Insurance, Property & Business Services	614	9.5
Government	295	4.6
Education	433	6.6
Health & Community Services	316	4.9
Cultural, Recreational, Personal and other Services	216	3.4
Other or not stated	199	3.1

EMPLOYMENT BY INDUSTRY SECTOR IN EMERALD 1996
TABLE 1

Source: (Reproduced from Table prepared by the Emerald Shire) ABS Census of Population & Housing

The Gross Value of annual agricultural production in the Emerald Shire was about \$82 million in 1995/96. This represents a growth of 126.8% since 1986/87. Table 2 shows a comparison of the Emerald Shire's production with that of a number of other Shires in the Region.

Shire	Total Value Agricultural Production 86/87 (\$M)	Total Value Agricultural Production 95/96 (\$M)	Growth (%)	Total Value Cropping 95/96 (\$M)	Manufacturing Turnover 93/94 (\$M)	Retail Turnover 91/92 (\$M)
Bauhinia	47.0	60.8	29.3	19.9	na	6.4
Duaringa	38.2	36.5	-4.5	10.0	6.0	33.4
Emerald	36.2	82.1	126.8	58.8	16.6	69.7
Jericho	16.2	17.8	9.8	0.8	na	1.3
Peak Downs	27.7	23.1	-16.6	12.2	na	6.2

TABLE 2

Source: Statistics from ABS Census

The impact of water resource development on regional growth can also be seen in the demographics of the region. Table 3 shows the change in population in several towns in the region over the last 35 years.

<i>Population in Census Years</i>								
Town	1961	1966	1971	1976	1981	1986	1991	Growth
Emerald	2029	2197	2923	3161	4628	5982	6557	+220
Springsure	814	709	821	763	807	806	729	-10
Clermont	1737	1676	1672	1644	1659	2452	2727	+57
Blackwater	na	na	1984	4638	5434	7029	6760	+240
Alpha	697	597	641	563	516	479	449	-36

POPULATION TRENDS OF SELECTED CENTRAL QUEENSLAND TOWNS
TABLE 3

Source Reproduced from State Water Conservation Strategy, DNR 1996

As can be seen from the figures presented in Table 3, the growth and stability in Emerald, along with Blackwater, which also obtains water supplies from the Fairbairn Dam, is in stark contrast to the other centres.

In recent times, Emerald's growth compared with that of the other Shires in the area has been even more marked than that shown for the period 1961 to 1991. Table 4 highlights this.

<i>Shire</i>	<i>Population 1992</i>	<i>Population 1997</i>	<i>Growth (%)</i>
Bauhinia	2352	2215	-1.2
Duarina	10428	9128	-2.6
Emerald	10717	12849	+3.7
Jericho	1106	1032	-1.4
Peak Downs	3620	3069	-3.2

ESTIMATED RESIDENT POPULATIONS OF SELECTED CENTRAL QUEENSLAND SHIRES 1992-1997

TABLE 4

Source: Queensland Regional Statistical Info System

The age distribution of the population provides useful indicators. The age distribution for the selected Shires is shown in Table 5.

<i>Age Group</i>	<i>Percent of population in Age Group</i>					
	Bauhinia	Duarina	Emerald	Jericho	Peak Downs	Queensland
0-14	26.5	30.6	27.4	23.4	28.4	21.8
15-19	3.7	6.8	6.7	4.1	6.5	7.3
20-34	23.1	24.4	26.9	25.8	26.8	23.1
35-49	23.6	25.9	23.9	21.2	24.9	22.3
50-64	14.3	10.1	10.4	15.8	10.0	14.2
65+	8.8	2.2	4.7	9.8	3.3	11.3

TABLE 5

Source: Queensland Regional Statistical Info System

An interesting feature of the above is the distinctive, below average, representation in the 15-19 year old group. In particular the representation of this age group in Jericho and Bauhinia is well below the State average, while those for the other three shires are only marginally below this average. Some commentators have suggested that this reflects the opportunities for employment for this age group in the respective shires. However, the representation in the 20-34 year age groups is equal to or above the State average. A second reason may be the availability of educational facilities beyond year 10 (i.e. Senior, Agricultural College, University etc) in Emerald, which reduces the need for this age group to leave the area to further their education.

The fact that these educational facilities exist however can be directly linked to the growth in the area emanating from the availability of the water supplies.

The Impact of Supply Failure

During the drought of the mid 1990s, there was a significant risk that the supplies from Fairbairn Dam would fail. Significant restrictions had already been imposed on the use of the remaining water allocation, and if the drought continued and no substantial inflows occurred, the mining industry was under threat.

Fortunately, sufficient rainfall occurred to replenish the storage levels of the dam. However, it was clear from the studies undertaken that, if the dam had failed, the effects on the community would have been severe. These impacts included the potential loss of:

- nearly 5,000 jobs directly in the mining industry and more than 9,500 jobs in other associated industries;
- up to \$1.7 billion in coal;
- \$250 million in freight charges to Queensland Rail;
- 17.2 million tonnes of coal to Gladstone and 11.9 million tonnes to Hay Point with resultant loss of export revenue; and
- irrigated agriculture production worth in excess of \$50 million per annum.

The importance of the water supply from the scheme to the Emerald area and other benefiting areas in the region is clearly evident.

The Fitzroy WAMP

Over the last few years, the Queensland Government has been developing the Water Allocation and Management Plan (WAMP) process. The WAMP for the Fitzroy Basin, which is currently at draft stage, is the first of its kind in the world. What makes these plans unique is that they are based on basin wide hydrologic modelling that will enable the possible effects of various water use decisions to be predicted to an extent never before achieved.

Features of the WAMP include:

- explicit provision for the needs of the environment;
- greater certainty and security of existing entitlements; and

- provision for additional water allocations in the basin for future consumptive needs.

The WAMP will define the appropriate balance between water that can be withdrawn for stock, urban, domestic, industrial or irrigation purposes and water which should be left to maintain the health of the river. When approved, the Plan will apply to the allocation and management of water in the Fitzroy catchment.

The draft Fitzroy WAMP provides for the Government reservation of additional water supplies to plan for future priority water needs for consumptive purposes (including future urban, industrial and irrigation requirements) within the Fitzroy Basin. Detailed planning processes will be undertaken to determine the optimum way to develop and allocate each reservation.

Through the WAMP process, coupled with the existing Impact Assessment processes for development proposals, it will be shown that development of water infrastructure can occur in an environmental sustainable manner.

Development Opportunities and Demands in the Fitzroy Catchment

The Fitzroy Basin has a particularly rich resource base and is one of the most important export earning areas of the State. It is clear that significant opportunities exist for expansion of the area's economic activity.

Coal mining can be expected to remain the mainstay of the area's economy for some time with strong growth prospects including increased export potential. The release of land in the Central Queensland coalfields for coal exploration can be expected to lead to a number of new coalmines commencing operation over the next decade.

Huge opportunities also exist for the expansion of the area's agricultural base as new and expanded markets are accessed. These include, for example, significant demand for expanded cotton, peanut and horticultural production. A major advantage for the area is its so-called 'window of opportunity', whereby fresh food can be produced at a time when prices and demand from export and domestic markets are high.

Terry Heiler, in his 1995 paper "The International Water Industry and Australia's Situation", successfully argues that the developing economies of Asia will dominate the production of industrial goods. He also suggests that the developed agricultural systems of the affluent nations, will provide a much increased proportion of the food needs of the urbanised new industrial economies. Central Queensland has the potential to meet this challenge.

A significant increase in agricultural and coal production can be expected to have numerous other spin-off benefits such as the development of a number of value adding and service industries. In addition, strong urban growth can be expected to continue, particularly in major centres and in towns closely aligned with the expanded mining and agricultural activity. For struggling rural communities, major benefit may well include enhanced infrastructure and employment prospects.

All of these areas are major users of water and rely on the availability of reliable water supplies for their continued prosperity. However, under existing management and operational practices, all regulated water in the Fitzroy Basin is considered fully committed and no new or additional water allocations are available from the existing infrastructure.

There is no doubt that a significant demand exists for additional regulated water supplies in the catchment. This is evident from the results of a water demand survey conducted by the Queensland Government as part of the Comet and Dawson River Dams investigations. The survey showed a demand for additional water far in excess of the volume which these dams, if built to the levels proposed, could ever reliably supply.

There is little doubt that for economic expansion to occur and given the magnitude of the demand for additional water, major water infrastructure is required unless we can achieve efficiency gains of enormous proportions from existing infrastructure. The ramifications are that without this additional water infrastructure, Central Queensland's resources would lie idle and growth remain at a standstill. As a consequence, a decline in rural Queensland including a population transfer from rural to urban areas would be a real possibility.

Conclusions

Appropriate water resource planning, development and management is essential if continued expansion in economic activity and maintenance of living standards are not to be jeopardised. The challenge for, and responsibility of, both the Government and the population at large, is to strive for and achieve an optimum balance between water resource development and nature conservation.

CASE STUDY NO 2: GLADSTONE

AN EXAMPLE OF SIGNIFICANT REGIONAL DEVELOPMENT AS A RESULT OF BROAD INFRASTRUCTURE INVESTMENT

World competitive infrastructure holds the key to industry investment decisions. Gladstone boasts significant infrastructure, in terms of transport, energy, land and water which supports local industry investment.

Regional Overview

The Gladstone region covers the local authority areas of Gladstone, Calliope and Miriam Vale, a total of over 10,000 square kilometres. The region incorporates national parks, coastal and island tourist destinations and the Great Barrier Reef.

For a regional population of over 44,000 people, boasting a growth rate of over 4.0% per annum, the community enjoys facilities comparable to those of a much larger centre.

The region is a key area in Queensland's and the nation's economic development, presently generating over one-third by volume of the State's exports. The region's principal city, Gladstone, is the major processing centre for the resource-rich region.

Offering suitable land in close proximity to the State's largest multi-commodity port, a reliable supply of both energy and water and a proactive community, the Gladstone region has developed as a premier location for investment. Being recognised throughout the world as the location for internationally competitive industries, the region is becoming known for its potential to support a diverse range of processing and new manufacturing industries such as chemicals and plastics.

Gladstone has the advantage of its existing aluminium industry and the potential for magnesium and titanium metal industries based on nearby raw materials.

A brief history

- 1853 Gladstone was established.
- 1896 Gladstone meatworks was established.
- 1914 Gladstone Harbour Board was formed.
- 1934 The meatworks expanded.
- 1960 The town's population was 7,200 with a port trade of 202,000 tonnes.
- 1961 The meatworks closed.
- 1964 Queensland Alumina commenced construction.
- 1967 Gladstone-Moura rail link was completed and QAL produced its first alumina.
- 1970 Population was 14,000.
- 1971 Queensland's largest power station commenced construction.
- 1976 The power station commenced generation and Gladstone was declared a city.
- 1980 The population was 23,000, port trade was 17 million tonnes and Boyne Island and Tannum Sands were linked by bridge.
- 1981 Queensland Cement Limited commence clinker production.
- 1982 Boyne Smelters commenced aluminium production.

- 1990 ICI and Minproc commence chemical production.
1996 The Gladstone Region was a \$12 billion City: the value of major development.
1996 Port Trade was 38 million tonnes; population was 27,500.

Transport

The Port of Gladstone is one of the largest ports on the eastern seaboard and handles more than 39 million tonnes of cargo per annum. The Asia-Pacific area, within 10 to 12 days sailing time, is the port's main international destination.

As Queensland's largest multi-commodity port, it moves over 30% of the State's exports by volume and close to 10% of the nation's exports by volume. Economics of scale are made possible by the capital-cost savings achieved through multi-user facilities. Charges are world-competitive, aided by an integrated labour force operating these facilities.

Gladstone has the fifth largest capacity coal export port in the world. Coal represents over 60% of Gladstone's total cargo and is exported to more than 20 countries. Other products exported include alumina, aluminium, cement, grain, woodchip and chemicals.

Over 800 vessels use the port annually to carry cargo to and from nearly 50 countries. Raw materials imported include caustic soda, petroleum products, petroleum coke and bunker fuel oil with bauxite being the principal import.

Stage one of the Gladstone Container Terminal is a multi-user, multi-cargo facility which will encourage additional resource processing and manufacturing industry in the Gladstone area. It also provides Central Queensland's containerised agricultural products with an inexpensive export outlet. The need to develop infrastructure for the receipt, storage and shiploading of containerised general and break-bulk cargoes is being met through a staged development plan.

The regional road network is principally serviced by the Bruce and Dawson Highways. Internal road systems allow the transportation of goods without impacting on the city centre or dense population areas.

The Gladstone region is a major operations area for Queensland Rail, due to its significance as a coal-exporting centre. Electrified rail links Gladstone to Brisbane, Rockhampton and the coalmines in the Bowen Basin, with trains more than 1.5 kilometres long, each carrying in excess of 5,500 tonnes of coal to Gladstone's coal terminals. Non-electrified rail extends the network to encompass agriculture and other mineral resources.

In addition to the central distribution system with Gladstone, Queensland Rail has established a dangerous-cargo spur line and direct access links to the port of Gladstone and the containerisation facility.

Regular freight and passenger rail services are available within Queensland, from Cairns to Brisbane, and interstate, linking with the major ports of Sydney and Melbourne.

The existing airport infrastructure is also capable of supporting jet aircraft up to BAE146 standard.

Energy

Reliable and competitively-priced power is readily accessible through Queensland's electricity grid. Thirty percent of the State's power needs are supplied to the grid by the Gladstone power station, a coal-fired facility comprising six 280 megawatt generators consuming 4.6 million tonnes of coal per year.

Natural gas from the Surat Basin gasfields and coal-seam methane gas from the Bowen Basin reserves are pumped through PGT Australia's 530 kilometre-long pipeline from Wallumbilla (near Roma in South-West Queensland).

Access to a reliable supply of gas has been instrumental in attracting new industry and allowing established industry to benefit economically from conversion.

Land

Carefully planned development has allowed an ample supply of fully serviced industrial sites in the region. Designated industrial estates for business and light industry are separated from the residential areas which have expanded west and south-west of the city.

Large areas of land suitable for future industrial development are held by the Queensland Government, as well as the Gladstone Port Authority and private owners.

Potential industry development is continually monitored to ensure projected land requirements can be met. The State Government, in conjunction with the local authorities, and the Gladstone Port Authority does this. Additional tracts are being opened up as a result of long-term reclamation strategies. These strategies are sufficiently flexible to meet the demands of incoming industry whilst preserving large areas of undisturbed wetlands.

Water

Recognising industry's need for a reliable supply of water resulted in the construction of a major water storage facility on the Boyne River. This facility, Lake Awoonga, is a key resource for existing and future industry in the region.

The Gladstone Area Water Board supplies raw and treated water for industrial purposes to Gladstone and surrounding areas by pipeline from Lake Awoonga. Industries on the industrial estates are serviced from raw water and treated water reservoirs, with plans in place to ensure that the water needs of proposed industries, as well as those of the growing residential areas, can be met.

CASE STUDY NO 3: ROADS

AN ESSENTIAL REGIONAL FOUNDATION FOR GROWTH

Background

Queensland's 34,000km of State-controlled road network, which has a replacement value of \$21B, represents 20% of Queensland's total road network and carries 80% of the State's traffic. It comprises some 4,200km of national highways, for which the Federal Government has funding responsibility, with funding for the remainder of the State-controlled road network, the responsibility of the State Government. While State funding has increased over time, the Commonwealth commitment has not reflected increased development.

Roads carry:

- 95% of urban passenger travel;
- 81% of non-urban passenger travel (100% in many regional areas); and
- 70% of total freight.

The current expenditure by the Queensland Government on work on Queensland's roads is \$1.1B, from all sources. The distribution of these funds is skewed toward regional areas, recognising the vast distances between population centres in Queensland and the criticality of industries based in our regions (see below). Projects currently underway on the State Controlled Road Network generate savings in fuel, efficiency and safety equivalent well in excess of the cost. As an employment generator, it is estimated that investment in Queensland road infrastructure generates or sustains 17,000 jobs each year, with multiplier effects in potential business and industry development opportunities.

The benefits of roads investment

Although roads are acknowledged as an essential regional foundation for growth (a foundation invigorated by the development of freight-efficient vehicles), as well as providing income, employment and social cohesion, Commonwealth funding for roads in Queensland has deteriorated over the last 5 years, contributing to increased transport costs relative to other States; social and cultural cost and, almost certainly, lost opportunities for growth. Over the same period, State funding for roads has increased markedly.

Deficiencies in road infrastructure services in regional Queensland have almost certainly cost the State opportunities to facilitate new investment. Most of the 34,000km State-controlled road network constructed in the 1960s and 70s is coming to the end of its serviceable life and road users incur higher costs due to roads that are the roughest in Australia.

Commonwealth funding for roads is clearly inadequate. Queensland's submission to the 1997 House of Representatives Inquiry into Federal Road Funding argued that, on National highways alone, an additional capital funding need of \$130m per annum was

required over a 10 year period. This funding would only deliver modest standards compared to those defined by the Commonwealth Government at that time, for the development of the National Highways. Unfortunately, there has been little relief.

As Table 1 shows, while the demands on the State Controlled Road Network have increased substantially in the ten years since 1987/1988, Federal roads expenditure has declined, despite increased revenue from collections of Federal Fuel Excise in Queensland. Although State roads expenditure has increased over this period, the demand for new investment in, and maintenance of, the State Controlled Road Network far outstrips available funds to meet these needs.

Queensland 1987-88 v 1997-98			
Issue	1987-88	1997-98	Variation
Population	2.71 million	3.37 million (as at 30.6.97)	24% ↑
Total km travelled	25 billion km	36 billion km	44% ↑
Sale of Petrol (Leaded and Unleaded)	2.9 billion litres	3.6 billion litres	24% ↑
Federal Fuel Excise * (Queensland collections)	\$780 million	\$1,277 million	64% ↑
Value of Foreign Exports - Queensland *	\$11 billion	\$17 billion	55% ↑
State roads expenditure including Pacific Motorway *	\$294 million	\$658 million	124% ↑
Federal roads expenditure *	\$281 million	\$269 million	4% ↓

* Expressed in 1998-99 dollars

Unless the decline in roads funding is reversed quickly, there will be irreparable damage to the competitive position of some of our major export industries, worsening rural-urban drift and consequential unemployment and underemployment and a downturn in national performance.

Private sector funding is an option for bringing additional investment into public roads. However, notwithstanding current tax limitations, this may not be an attractive alternative for Queensland, which has a strong financing capability.

Over the next three to five years, roads have an essential role to play in supporting some of the most exciting industry development and employment creation initiatives in Australia, particularly in the North West of Queensland. The Commonwealth Government can play a vital role in bringing these opportunities to fruition.

CASE STUDY NO 4: NORTHERN PENINSULA AREA CAPE YORK

ABORIGINAL AND TORRES STRAIT ISLANDER DEED OF GRANT IN TRUST COMMUNITIES - DEMONSTRATION HOUSING PROJECT

The Demonstration Project draws together housing and infrastructure initiatives being planned by a number of State Government Departments, and the Aboriginal and Torres Strait Islander Commission (ATSIC). The 1996 Housing Ministers' conference identified a number of housing impediments for Indigenous communities. In 1997, the Ministers agreed to trial a co-ordinated approach to improving the quality and sustainability of housing and infrastructure, as a model to increase the living and housing standard on communities.

The project has been undertaken as a pilot Health, Safety and Amenity Program in the Aboriginal and Torres Strait Islander Deed of Grant In Trust (DOGIT) communities, situated in the Northern Peninsula Area (NPA). Following consultation and negotiations, five councils agreed to participate in the project, including the Aboriginal communities of Injinoo (population 500), Umagico (250), New Mapoon (255) and the Torres Strait Islander communities of Bamaga (573) and Seisia (139).

Project objectives

The objectives of the project are to:

- improve the living standards and environmental health conditions in the communities;
- reduce the backlog of housing repairs and maintenance;
- provide employment and training;
- ensure effective and efficient expenditure of State and Commonwealth Government funding; and
- coordinate and combine local government councils/communities, State Government departments and ATSIC services to prevent over lap and duplication.

The project compliments other government initiatives to improve both physical housing infrastructure and training and support to communities.

Progress report

The project has been completed in stages. Stage 1 focussed on urgent improvements to the health, safety and amenity housing aspects, including: new kitchens; toilets; shower bases; upgrading to water wise fixtures; hot water unit repairs/replacement; plumbing and electrical repairs; and upgrading defective septic. Stage 2 work included fitting security and insect screen to houses, smoke alarms, vermin and termite treatment, painting and fitting new vinyl floors coverings and general repairs and maintenance.

Stages 1 and 2 of the project have been carried out over 10 months, with repairs completed on 311 houses (including 301 houses with significant repairs) at a cost of \$8.27 million. On site management and direct ordering of materials resulted in savings up to \$827,000.

The project has created employment and training for 37 local Indigenous tradespeople, trade assistants and labourers, and non-indigenous people.

Major health and safety upgrade work is almost complete. Planning for the next stages, which include replacing substandard stock and providing additional houses, has commenced as part of the Five Year Capital Works Plan for DOGIT Communities. The Plan aims to completely address current measured need on these communities over the coming five years.

Project outcome

To date the pilot project has been successful in providing: significant health and safety upgrades; economic benefits to communities; increasing health and environmental standards in each community; and creating employment and training of local Indigenous and non-indigenous people.

An evaluation of Stages 1 and 2 recommended changes for similar projects in the future. The evaluation concluded that considerable savings in both time and money resulted from coordination of the project between councils, government departments and ATSIC funded projects.

To complement the capital works undertaken, funding has been provided to the Aboriginal Coordinating Council, to employ a Housing Facilitator to assist the five Councils develop and implement policies, procedures and systems to manage their housing assets and tenancies and to provide training and support for housing workers. The booklet "*Your house – a book about your new home*", designed to create a tenant awareness of everyday housing issues and offer practical household advice to the tenants and councils, was distributed at the completion of the project.

During the project many local people were trained and employed. The life of houses has been extended considerably. Government departments and ATSIC are considered to have received good value for funds spent, and the project managers evaluated and recognised changes for potential gains in future similar projects. The NPA residents and Councils are pleased with the outcomes.

CASE STUDY NO 5: EXAMPLES OF THE FLOW ON BENEFITS OF THE DEVELOPMENT OF SIGNIFICANT INFRASTRUCTURE

South West Queensland to Mt Isa Gas Pipeline

The South West Queensland to Mt Isa gas pipeline is an example of the development of significant infrastructure as a response identified need.

Developments that have occurred as a result of the gas pipeline, or which have been considered because of the availability of gas include:

- conversion of Mica Creek power station from coal to gas;
- independent power producer taking over Mica Creek;
- WMC's HAF plant at Phosphate Hill;
- scrubbing SO₂ for MIM smelter exhaust;
- possible use of by-product (sulphuric acid) from Sunmetal refinery;
- ammonium nitrate plant;
- copper smelter;
- gas supply to Cannington Mine; and
- power from Mica Creek to Gunpowder Mine.

Matilda Highway

The Landsborough Highway was sealed to provide a reliable road for the transportation of goods and residents in Western Queensland. However, the road also provided access for holiday travellers and was marketed to holiday makers as the "Matilda Highway". The Matilda Highway has demonstrated the impact a single item of infrastructure can have on industry, in this case tourism, and on the regional economy.

Further developments which have occurred and existing attractions which have been promoted to enhance the travel experience (in tourism terms, building the product), include:

- Stockman's Hall of Fame, Longreach (Bicentenary Project);
- Qantas Founders Museum, Longreach (Centenary of Federation Project);
- Waltzing Matilda Centre, Winton (Centenary of Federation Project);
- Workers Heritage Centre, Barcaldine;
- RFDS Memorial, Cloncurry (Bicentenary Project);
- Riversleigh Interpretative Centre, Mt Isa;
- Wool Scour, Blackall (Centenary of Federation Project);
- Walkabout Creek Hotel (Crocodile Dundee), McKinley;
- The Blue Heeler Hotel, Kynuna; and
- Lark Quarry dinosaur trackway, outside Winton.

Telecommunications as an educational tool

By utilising existing communications infrastructure, the Queensland Government established “Schools of the Air”, or Distance Education, as it is now known, in the early 1960s.

During the 1960s and 70s when rural television was being established, schools were proactive in using television as a teaching tool in rural communities.

During the 1980s, satellite technology and the Queensland Government’s own television network (CITEC Corporate Television Service) also assisted education delivery in remote regional centres. The concept of extension campuses (for post compulsory education programs) was launched at Winton, Cloncurry and Cunnamulla. This technology has enabled post compulsory programs to be established in small schools with small scale capital injection.

During the 1990s, the Queensland Government has continued the impetus of utilising communication technology in enhancing the delivery of its services. Programs such as “Connect-Ed” and IT infrastructure upgrading - “Schooling 2001” have demonstrated the importance placed on IT connectivity and global education/office scenarios by the Government.