A dimension of opportunity: the golden pipeline of Western Australia

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Bunbury born, Don Newman is an architect and town planner with seventeen years active membership of the National Trust. Awards for Excellence in Planning from the Royal Australian Planning Institute for community planning have been won in 1992, 1993, 1994 and 1998. In 1999 he won the inaugural Russel D. Taylor Award for Design by the Australian Association of Planning Consultants. He has practised in most states of Australia and for seven years worked in London on major city projects including six conservation works in Covent Garden, London. He is a committed and practising heritage conservationist. At the time of presenting this paper Don was Project Manager for the Golden Pipeline Project of the National Trust of Australia (WA).

Introduction

The State of Western Australia is wider from east to west than London to Warsaw, and from north to south is equivalent to the distance from Oslo to Gibraltar. It has 3500 km of coastline and has been occupied by European culture for only 170 years.

After the first 60 years of limited growth when its population was less than 90,000, a rich goldfield was discovered in its eastern region and the largest but poorest colony quickly blossomed into a vigorous and confident self-governing state. In the last decade of the 19th century, gold revenue cushioned the economy of Western Australia from the depressed conditions in other states and to sustain this prosperity, three major public works were undertaken by an engineer of great vision.

In 1891, C.Y. O’Connor, an Anglo-Irish engineer, was appointed by the Premier, John Forrest, to be the Engineer-in-Chief of the Public Works Department with three major undertakings:

• to create a new and safe harbour at Fremantle
• to establish the Western Australian railway system in a vast land
• to devise a way of supplying the remote eastern goldfields with fresh water – the subject of this paper.

The technological and logistics problems were enormous as Western Australia relied on sea lanes for supply of steel and machinery for the mechanical components of the schemes.

The Coolgardie Goldfields Water Supply Scheme

In co-operation with innovative industrial engineers and manufacturers, O’Connor designed and constructed a scheme which produced 5 million gallons of fresh water per day over a distance of 550 km from the source. It was completed on time and on budget. The scheme operated as it was originally designed for nearly 70 years before the introduction of electric pumping and improved pipe technology. It was mostly built by hand as no heavy construction equipment usage is recorded or evident in photographs.

Mundaring Weir for example, a dam with a height of 100 feet (30.5 metres), was constructed with delivery of material by train and site equipment comprising a simple block and tackle. Manpower was the greatest contributor to the construction process. The pipeline was placed in a trench, which meant digging a ditch by hand for 550 km in very harsh conditions. Only one death was recorded for the construction phase of the scheme.
This scheme eventually enabled 3.2 million hectares of land to sustain reliable cultivation which doubled the extent of agricultural land in WA at the turn of the century. It currently services other agricultural areas as well as additional mining regions and is now known as the Comprehensive Water Supply Scheme.

Without this reliable supply of fresh water, the gold producing areas would not have developed and the economy of Australia would have been significantly reduced over these times. Today, the goldfields contribute 75 per cent of Australian gold production, which substantially assists in maintaining Australia as one of the top four gold producers in the world.

The romance of this story is darkened by O'Connor's demise. Viciously criticised as corrupt or incompetent by an editor of a local newspaper (who was also an MP), O'Connor is believed to have committed suicide nine months before water reached Kalgoorlie. The enormous workload and unjust criticism appeared to finally drive the distracted visionary to take his own life. In later years, the press recognised the terrible error of their misguided campaign of vilification.

The epitaph on his grave is a moving comment on his death: *Till the day breaks and the shadows flee away.*

**The dimension of opportunity**

Along the 550 km route are small towns of declining vitality, set in agricultural/pastoral landscapes. The major hope for reversing this decline is to attract more tourists to the region and provide experiences that will encourage longer stays and return visits.

For most of its length, the pipeline has a companion highway which is the major east-west route to the eastern states, and the Indian Pacific standard gauge railway. By utilising this existing transport infrastructure as feeders from Perth or the rest of Australia, each community can promote a collection of tourism jewels in their own domain and draw sustenance from a strategy of 'entrapment and dalliance'.

The daily average vehicle count from Perth on the Great Eastern Highway is 5280, which reduces to 1100 at Coolgardie. The 1998 National Visitor Survey records the average length of stay in the Goldfields as 4.1 nights while the intervening area, the Wheatbelt, averages only 2.6 nights. Further, the Wheatbelt covers a wider area of settlement with 44 local authorities. Total visitor numbers are 292,000 and 723,000 respectively which indicates the tourists are travelling through the Wheatbelt but not staying along the route in the same numbers as at the Goldfields. An effective strategy of 'entrapment and
dalliance' will provide the catalyst to increase the length of stay.

This strategy is possible through the medium of a major heritage place acting as the magnet for tourist activity. That this 'place' is 550 km in length is its unique attribute, enabling the strategy to operate.

For a century, the pipeline was just the source of water for the communities and now it is set to be the 'Dimension of Opportunity', a line of variable visitor experiences promoted comprehensively and cohesively as integral components of the Golden Pipeline. It will enable a critical mass of attractions to draw the visitor away from using the route as a thoroughfare to get to Kalgoorlie as quickly as possible, largely because of the perception that there is nothing of interest on the way.

When individual communities are examined, it is evident they have a wide diversity of outstanding attractions that are often related to or are part of the pipeline infrastructure. Thematic visitation for this project can be introduced and promoted for diverse interests such as steam, engineering, natural environments, ethnic stories and social history, indigenous culture, historical interpretation, gold and other minerals, agriculture/pastoral, lifestyle and the uniqueness of 'Australian-ness'.

For example, Coolgardie, a National Trust declared Historic Town and the birthplace of the Goldrush has just published a full-colour flyer of their places of interest. Nineteen places are identified as tourist attractions with 46 other places noted as being of possible interest. These other places range from the Council Offices to Bayley's Reward (the original gold discovery site). The flyer is informative, well laid-out and attractive to the visitor, but more significantly, has been produced to initiate the strategy of 'entrapment and dalliance' in Coolgardie.

This town is a special case as it was the premier town and a thriving gold centre until richer deposits were found at nearby Kalgoorlie. Its decline is demonstrated in its remnant fabric. The streets are wide enough to enable bullock wagons to turn and its major public buildings are substantial stone edifices, now dominating empty streets with vacant lots as their urban context. It has many places of interest to the visitor and, with promotion, could persuade a driver tourist to stay overnight. The power of the Golden Pipeline will lure the visitor and the flyer will spring the trap to capture and captivate.

Two hours drive to the west is the town of Southern Cross, the centre for the Shire of Yilgarn. This shire is perhaps the richest in pipeline assets. Three pumping station sites with two intact buildings, plus the delightful Karalee Rock Dam and Aquaduct, identify this area as a potentially slow journey of discovery.

Yerbillon is only a shell but it is set in a landscape of natural tranquillity that is
a visual feast in the spring wildflower season. It is just off the highway and has
great potential for interpretation and different styles of visitor accommodation –
like the Ghooli and Gilgai pumping stations. Set in an area of peaceful beauty,
Ghooli not only provides an almost intact engineering story but also the added
interest of agricultural/pastoral storylines. Gilgai is just a site, but with remnant
infrastructure such as suction tanks, pipework, fittings, fencing, gardens and
railway formations. This site offers a pleasant natural setting with a nearby dam
and interpretative potential.

Without doubt, Karalee is the jewel of the Shire. Constructed in 1896 to service
the steam locomotives, it is a 27 ha rock catchment with stone walls feeding to
a steel aqueduct that discharges into a reservoir big enough to sail small boats
on. It possesses a unique ecosystem and has significance to local Aboriginal
people. It is in poor condition but conservation works will commence in 2000.

The Shire town of Southern Cross can boast a small, interesting museum,
a main street full of character and a spectacular open-cut mine on its urban fringe.
A recent acquisition is the Masonic Lodge (intact with all accoutrements and
regalia) which the Shire is preparing to interpret. This area will become a slow
and delightful experience to a range of visitors and similar promotion to that for
Coolgardie is expected to deliver the magical additional night stopover.

Superficially, Merredin, the possessor of the very degraded No. 4 pumping
station, would seem a lost cause. However, the old building is surrounded by its
1960 electric successor, a chlorination plant, its dedicated electric sub-station,
the original engineers house and a worker’s cottage plus the original reservoir.
A new electric pump station is to be built in 2000 and the redundant
infrastructure will be incorporated into a site that will interpret the three
generations of water supply for the Scheme.

No other site along the pipeline will possess this interpretation opportunity. The
site also has ample area to provide backpacker-style accommodation. The entire
site has been an eyesore to the local community over the years and, as it is at
the western entry to the town, they welcome any initiative to enhance and make
useful this derelict industrial site.

The metropolitan site is Mundaring. This site is within the ‘one hour journey’
time, which is a cardinal rule for international visitors staying in upmarket
hotels in the city. Mundaring has the assets to draw these tourists and generate
substantial revenue to spread along the pipeline for local benefit.

Mundaring is a stunning visual treat. The weir wall and water body is set in a
narrow valley with eucalypt forest down to the water, views to the city,
pumping station No. 1 with No. 2 site just 2 km away, modern electric pumping
stations and treatment plants, remnant structures from World War II and the old
railway formation. A highly regarded natural environment education centre run
by the Department of Conservation and Land Management is set within the nearby forest. Formal visitor counts show 25,000 attend the education centre and 18,000 visit the C.Y. O'Connor Museum in the No. 1 pumping station. The Mundaring Weir Hotel is a charming but little known gem. No figures are available for casual visitors but they would be of similar scale.

A new visitor and interpretation centre is planned for the site, with retail services and outdoor activity opportunities to be developed over the next three years. Feasibility studies indicate a level of 200,000 visitors is achievable at an early stage. The fees and leases will considerably boost revenue to sustain the development program. The trap is set and the visitors are about to be captivated.

**Conclusion**

For over 500 km of Pipeline, opportunities will develop a new socio-economic energy in towns of low self-esteem and residual stagnation. These opportunities will arise through the linking of local and individual tourist assets to the line of a 100 year old historic water supply pipeline – a fine line on any map of the Wheatbelt and the Eastern Goldfields.

This fine line is in effect, a dimension of opportunity for the eleven shires. The Golden Pipeline Project will act as a new form of conduit, as it will draw in visitors from the metropolitan area and direct them along a 550 km journey of discovery and delight and, in so doing, deliver community revitalisation along the way. It is a heritage 'place' that will be the catalyst for a major rejuvenation from city to the bush and demonstrates in a dynamic way the theme of this conference, the Burra Charter in the Bush.

I hope a review of this enormous project in three to four years will be able to report the great successes foreshadowed in this paper. I believe it will and that the Golden Pipeline will articulate how heritage is another layer of lifestyle values for our present and future communities.

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