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The Australian Rangeland Society

RECOGNISING PRODUCTION VALUE - A VISION FOR THE FUTURE

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When the stakeholders of Australia's rangelands meet to discuss their vision for the interior's future, the conference is sure to be stimulating and the outcome can only be challenging. I believe it is an exciting development to bring together all stakeholders in one place with common goals - pastoralists, miners, tourism operators, land owners, Aborigines and conservationists. And, it is a privilege to be invited to offer a point of view which will, hopefully, invigorate discussion and contribute to a workable vision for Australia's rangelands.

None of us need to be told that Australians are blessed with a truly magnificent country, capable of supporting multiple, productive and sustainable uses. However, much of Australia's interior is grossly under-utilised. How we should embrace the concept of sustainable development is already a challenge being met by all rangeland users. Continuing the balance between conservation and development is our goal for the future. And development is integral and fundamental to our future.

Mining, is one of Australia's oldest industries. Without the development of major mining centres, much of Australia's interior would still be isolated and unproductive. In fact, since 1967, the mining industry has built 25 new towns with housing, schools, hospitals, shopping centres and extensive sporting/recreation facilities and modern amenities. It has also constructed 12 new ports, at least 20 airfields and about 1,900 km of heavy-duty railway line to transport mine products from the interior to coastal ports for export.

The minerals industry is now, after almost 30 years of dynamic and consistent growth, Australia's largest export earner, a large investor, a significant employer and a major contributor to Gross Domestic Product (GDP).

Consider these facts:

The minerals industry directly employs 81,500 people, but is highly capital intensive so as to maintain world competitive standards. Another 200,000 people are employed in the closely-related basic metal products industry and another 427,000 manufacturing industry jobs are based on Australia's minerals and energy inputs!

More than 80% of mine product is exported and the value of mining exports, including oil and gas, is \$29.8 billion a year. That is 40% of the total goods and services exports for Australia.

Australian mining projects use, on average, 85% Australian products and services.

Mineral output more than doubled from 1980 to the present, and continuing exploration and advances in mining and mineral processing mean that this industry's significant contribution to Australia's economy can only continue to full economic growth in this country.

Locally, the impact of Olympic Dam, WMC Resources' copper, uranium, gold and silver mine in the north of South Australia, has been and will continue to be significant for the region, the State and for the country. Already, WMC has invested more than one billion dollars developing this operation and its associated town, Roxby Downs.

On July 15 this year WMC announced plans to invest a further \$1.25 billion to more than double production from Olympic Dam. This will mean a four-year construction period which will provide around a thousand extra construction industry jobs on site. In addition to the boost to development and employment, the expansion will lead to a number of other significant regional and national benefits including:

- A boost in annual export earnings from \$270 million to a likely \$600 million. Olympic Dam is a major value-adding operation. It is the only operation in Australia to take copper ore through to 99.99% pure copper on the one site.
- There will be a significant increase in royalties on production payable to the State Government for the benefit of all South Australians - the \$12 million paid in 1995-96 is likely to more than double on completion of the expansion.

Already in its short existence, Olympic Dam has returned royalties of more than \$45 million to the South Australian Government and paid more than \$30 million in payroll taxes and stamp duty to the State.

WMC Resources firmly believes the Olympic Dam operation will be an extremely long-term project. In fact at current production levels, Olympic Dam has an expected mine life of in excess of 200 years.

Olympic Dam is just one of the mineral operations contributing to the country's wealth; a wealth which is well documented, but not well publicised. Often overlooked by the media is this industry's contributions to the environment and ongoing land use during and after mining. Too often, the industry is portrayed as a destructive force in our pristine environment.

Ironically, the development and protection of our environment in the interior is due today, largely, to the wealth generated by the minerals industry. Two classic examples from different eras are Broken Hill in New South Wales and, of course, our very own Olympic Dam, here in South Australia.

When Broken Hill was discovered in 1884, the surrounding trees were sacrificed for fuel and energy. The impact of chopping down so many trees was not foreseen. But years later the dust generated from the barren landscape created an enormous problem. By then, the industry was wealthy enough and knowledgeable enough to repair the damage. Thousands of trees and shrubs were planted and a regeneration area was established around the town. The transformation is the town's pride and tourism is one of the resulting industries as the mining life nears the end.

The mining industry's newest town, Roxby Downs, is an environmental showpiece in the desert. During construction in 1987, the town was built around the trees and employees and contractors were warned if they removed a tree without prior consent. In addition, it is estimated that more than 140,000 trees have been planted in the town and around the mining lease in the past 15 years.

It's worth noting that the greatest collection of environmental professionals anywhere in the State of South Australia (outside academic institutions) live in Roxby Downs and work for Olympic Dam. These 29 dedicated 'greenies' do not grandstand about the environment; they do something about it.

Our botanist, Frank Badman, has produced detailed files of pressed plant clippings for each of the surrounding pastoralists. These include the botanical and common names of plants on their properties as well as their edible qualities for livestock. These have proved invaluable to pastoralists.

Our ecologist, John Read, has produced a number of papers on the fauna of the area, including the identification of rare animals not previously sighted in the district. John has studied frogs and ants, valuable early indicators of any potential pollutants or potential environmental impacts. The WMC horticulturist, John Zwar, has played a major role in the greening of Port Augusta, Leigh Creek and, of course, Roxby Downs.

None of the valuable information generated by these professionals and their colleagues would now be available to other land users in the region if the Olympic Dam deposit had not been developed and the value of its production shared.

All WMC employees and contractors receive an induction on joining our company, including environmental protection. This includes guidelines for the use of four-wheel-drives in the area around Roxby Downs and for the care of our native landscape.

As part of comprehensive programmes established by the operation, the Olympic Dam environmental team ensures that a number of elements are consistently monitored - on site and in field areas like the Great Artesian Basin.

This means that the areas of flora, fauna, soil and water are continually checked to secure their availability for future generations. Water, for example, is integral to the operation's survival. Olympic Dam currently draws about 14 megalitres of bore water every day from the Great Artesian Basin. Most of this water is used by the operation for processing, but some is also used by the people of Roxby Downs and by pastoralists along the route of the underground pipeline.

Because water is so important to our survival, we have to be sure of a consistent supply, now and well into the future. At the same time it is imperative that we have a minimal impact on the areas from where we draw water. A second borefield has recently been established deeper into the Great Artesian Basin. The need for this was identified in our 1982 Environmental Impact Statement and it has been constructed with full public consultation and the necessary Government approvals.

To ensure that this water is used sensibly and efficiently, the entire population at Roxby Downs has embraced water conservation measures through a detailed strategy of projects. Some of these include:

- recycling water used in mineral processing activities;
- using waste water wherever possible;
- continuing research into recycling sewerage effluent and process water;
- recycling of some liquid from the tailing retention system.

Water conservation in this mining town is accepted as everybody's responsibility and adults and children alike are encouraged to participate in the water conservation strategy - at work, at home and at school.

Sourcing water from the Great Artesian Basin has involved consultation with numerous parties, including the Government, pastoralists and the Aboriginal people of the area. These sort of consultative meetings with the Aboriginal people are the result of special agreements with WMC. We entered into a formal agreement with the Andamooka Land Council Aboriginal Corporation to ensure a high level of involvement in the protection of Aboriginal sites by people with traditional responsibilities for the Olympic Dam area.

There are many ethnographic or archaeological sites at Olympic Dam and many of them have been identified as a direct result of Olympic Dam's own research. Information about these sites has been forwarded to the State Government for registration, to ensure their protection now and into the future.

Generally speaking, the Australian minerals industry cannot help but be a positive force in the development of the environment and other land uses in this country's interior. As you know, all potential mining operations must prepare an Environmental Impact Statement (EIS) prior to receiving government approval to mine. And, adequate funds must be set aside by the company in advance to successfully complete this environmental work.

The EIS must develop a program which will suit the ecological and the social environment of the area. The future land use of any disturbed area must be determined in this program. And, the program must be guaranteed to maximise the long-term success of any rehabilitation process.

As the Australian minerals industry develops and competes more and more successfully in the international arena, new and improved knowledge and technologies will ensure our effective performance in the Australian rangelands.

If we look at Olympic Dam's major minerals of copper and uranium as an example, we can gain an insight into man's inventiveness to utilise the natural resources that we have been blessed with. Copper was first discovered in its native form more than 10,000 years ago and copper pipes have been discovered in ruins dating back to nearly 3,000 BC. Nowadays we still use copper pipes, but our ever increasing drive for information and new technologies has delivered us into the Computer Age. Copper wiring and circuitry is now a vital part of your home or office computer and also the computer that operates your car.

Uranium is only a relatively new mineral used by mankind but throughout the 1800s was really only used to colour glass and ceramics. It has only been in the twentieth century that we have come to appreciate the enormous benefits that uranium provides to our way of life. Uranium produced radioisotopes have saved thousands of lives through the treatment of cancers and other illnesses. Radioisotopes also have a number of other industrial uses, but it is in the area of nuclear electricity generation that uranium is leading us into the future. Only a small amount of uranium is required to produce equivalent amounts of energy produced from fossil fuel powered reactors and emissions are almost non-existent. In fact one kilogram of U_{308} will produce the equivalent amount of energy as that from 30 tonnes of coal.

The world relies on nuclear energy for about 17% of its electricity requirements. This figure is still growing, especially in the Asian region. Economies such as Japan, Korea, Taiwan and Europe now provide about 30-50% of their electricity requirements from nuclear generation.

Over the centuries the uses of minerals and metals have become the basic components of modern living. They are inextricably connected to mankind's continuing evolution. The possibility of eliminating mining as a land use in the rangelands is not an option. The industry's modern history has shown that we can contribute greatly to the world's progress.

The world is populating at a rate never seen before. It passed the five billion mark in 1986 and is on the way to six billion by 1998. Yet, it took from the beginning of time until 1830 to reach the first billion. The second billion followed in less than a 100 years, in 1927.

Population growth has been checked in the developed countries, however, 95% of the world's future growth will take place in the less developed countries and regions of the world. Indeed, the greatest increases will come in the poorest countries.

The value of our mineral and metal production is not limited to economic growth. The Australian minerals industry is very aware that our role has extended beyond mining and metal production in the quest for cost efficient and ethical performances. We have accrued, developed and applied a mass of knowledge about the environment, about the conservation of water, about the respect for traditional and commercial landowners, and about the needs of our communities and other related businesses.

WMC Resources' mission to be a minerals and energy company determined to be best is a vision shared by the rest of the Australian industry. Our vision to be the best in the 21st century includes a wide consultative role. We will consult with our neighbours and other related industries and groups

to ensure we operate as effectively and as fairly as is humanly possible. The knowledge and experience we have gained in the past can only add value to the performance of other like industries, other land users in the interior, and other countries attempting to follow Australia's lead.

It is the mining industry's duty to consider future generations and provide them with the vast riches of this country. After all, our standard of living largely depends on minerals development. I'm talking about minerals and metals for building products - iron and steel, copper and nickel. I'm also talking about energy sources such as coal, gas and uranium. Almost everything we encounter in daily life depends, directly or indirectly, on minerals. Electricity, hot water, cars, trains, buses, pens, newspapers and television are just a few examples.

It is our country's interior which hosts the bulk of Australia's mineral riches. There are groups within the community that would prefer that the minerals industry did not operate in the rangelands. The same groups would also prefer that the pastoralists, the tourism industry and the thriving communities also vacate the rangelands, leaving the interior alone. This is not a viable, nor a sensible option.

All these industries and groups depend on the interior for their survival. We need to share our knowledge and experiences to truly reap the benefits of this country's riches. That means developing our sustainable relationships with all alliances so that we can all perform at our best and respect the magnificence of this great country at the same time.

Source: *What Mining Means to Australians*. Minerals Council of Australia, Feb 1996.