Creating a stronger, vibrant and sustainable community in the East Kimberley.
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Photo background: The Ord River Irrigation Area. Photo courtesy of Department of Agriculture and Food Western Australia
Front Cover: Photo courtesy of Tourism Western Australia
Foreword

Hon. Kevin Rudd MP Prime Minister

The Australian Government is committed to building a stronger future for people in the East Kimberley. The Government’s $195 million investment in the East Kimberley Development Package complements the Western Australian Government’s $220 million investment in expansion of the Ord irrigation area, to ensure the balanced development of the East Kimberley region. This is another example of how our governments are working together to tackle the economic downturn and stimulate the economy.

The East Kimberley Development Package has been developed by our governments in consultation with the local community, to support the economic and social development of the region. The Package will deliver real on-the-ground infrastructure for the people living and working in the East Kimberley, fostering growth and sustainability of this high productivity region.

The Australian Government’s investment will provide social infrastructure in the areas of health, education, community facilities, housing and transport. It will also provide training and productive employment opportunities for Indigenous communities in the region.

This investment in social and common use infrastructure in the East Kimberley Region is part of the Australian Government’s $4.7 billion Nation Building plan to support jobs and apprenticeships today while building the infrastructure Australia needs for tomorrow.

Hon. Colin Barnett Premier; Minister for State Development

The Western Australian Government’s $220 million investment in the Ord-East Kimberley Development Plan and the Commonwealth Government’s $195 million investment of Nation Building funding for the East Kimberley Development Package, are creating an exciting new economic growth centre in northern Australia.

Realisation of the region’s vast agricultural potential, a significant upgrade of community facilities and services, and increased Aboriginal participation in the economy, are the building blocks of development of national significance.

This project also incorporates, and is strengthened by the aspirations and determination of the people of the East Kimberley to secure a better future for their communities. Strong community involvement has brought together a balanced package that aims to address the needs of the community.

The Western Australian Government is confident that the success of this initiative and the economic, population and service growth it brings, will also trigger new opportunities for investment, business and employment across a wide range of economic activities.

Hon. Gary Gray Parliamentary Secretary for Western and Northern Australia

The commitment of both the Australian Government and the Western Australian Government to the East Kimberley Development Package and the Ord River Irrigation Scheme, represents an essential investment in the future of the people of the East Kimberley.

The $195 million East Kimberley Development Package will redress gaps in infrastructure relating to health, aged care, early childhood development and family services, education and vocational training, social and transition housing, transport and sporting and community facilities. Most importantly, the Package will promote meaningful and sustainable jobs for local Indigenous people.

The complementary $220 million Ord Irrigation Expansion Project investment by the State of Western Australia will contribute towards improving employment levels, economic development, wealth, participation and quality of life for the local community (including the Miriwoong and Gajerrong People), through the expansion of agricultural and horticultural land and the improvement of related infrastructure.

All necessary State and Commonwealth environmental approvals will be met. These projects will provide significant and long-lasting social and economic benefits to the local communities in the East Kimberley region.

I am looking forward to witnessing these benefits as the projects unfold and long after they have been completed.
Hon. Brendon Grylls  Minister for Regional Development; Lands

The Ord-East Kimberley Expansion is a confluence of nation building ideas with two primary objectives: to carry the available waters of Lake Argyle to new areas of the magnificent Ord River Valley and to engage the Miriuwung and Gajerrong traditional owners in meaningful business partnerships and sustainable jobs.

The agricultural expansion has been long-awaited but this project is more than just farming new irrigation land – it is the opportunity of a lifetime to build the community of Kununurra into a model where there is prosperity for all. The dream is to create over time a regional city based on agricultural enterprise and eco and cultural tourism.

The Miriuwung Gajerrong people signed the Ord Final Agreement in 2005 in the belief they and their children will help shape a brighter future for the region.

The expectations of the traditional owners should be met and it is my wish that all in the valley, be they pioneering growers or newcomers, embrace the ideal of fostering Miriuwung Gajerrong involvement in their workplaces. The Ord-East Kimberley Expansion is an opportunity to showcase full Indigenous engagement.

Funding through the Royalties for Regions program will see the creation of new agricultural land with associated common user irrigation and transport infrastructure. Five per cent of all new irrigation land is to be owned by the Miriuwung Gajerrong people who may choose to farm it themselves or partner with others.

The Commonwealth’s parallel investment in social and community infrastructure is pivotal to the success of the expansion and will bring significant change to the communities of Kununurra, Wyndham, Warmun and other smaller communities.

It takes little imagination to recognise the boundless potential for agriculture, pastoralism and tourism in the Ord Valley-East Kimberley and this historic State-Commonwealth investment gives the region the economic stimulus it deserves.

Teddy Carlton  Chairman of the Yawoorroong Miriuwung Gajerrong Yirrgeb Noong Dawang Aboriginal Corporation

The signing of the Ord Final Agreement in 2005, a native title agreement between the State Government and the Miriuwung Gajerrong people, was a major step forward in acknowledging our native title rights and moving towards addressing past injustices and plotting a more positive and inclusive future. This agreement opened the door for the expansion of the Ord irrigation project and allows for employment and business opportunities for the Traditional Owners of this country.

We are now on the verge of that agreement turning into practical reality and we, as local Indigenous people, must step up and grab hold of this once in a generation opportunity.

We welcome the Commonwealth and State Governments, Traditional Owners and business all working together with the common purpose of improving the lives of all the people in our East Kimberley community.

As the appointed leaders of our people we have the eyes of our Ancestors, Elders and our communities watching to make sure we make the most of this opportunity.

As leaders we have a duty of care to support and encourage our people from the ground up to embrace a better future for us all.

Our commitment is to help our people embrace the task ahead and meet the challenge to make a real difference.

Success will mean that Miriuwung and Gajerrong people will be proud to be partners, contributing to the development of Kununurra and the East Kimberley community.

Success will mean a better future for us all and open the door for future prosperity.
The Ord-East Kimberley Development Plan comprises numerous integrated projects that, combined, will deliver sustainable economic growth and generate employment opportunities in the East Kimberley Region.
Executive summary

The Ord-East Kimberley Development Plan is a comprehensive and integrated package of funding initiatives, to be delivered in the East Kimberley Region through a collaborative partnership between the Australian and Western Australian Governments. The project will include the release of 8,000 hectares of agricultural lots, in conjunction with the improvement of social, community and common-use infrastructure. The objective of the project is to create a stronger, vibrant and sustainable regional community in the East Kimberley. Any necessary environmental approval processes at State and Federal level will be met.

The Western Australian Government, through the Royalties for Regions fund, will invest $220 million on developing and delivering agricultural land and supporting infrastructure, including off-farm water supply, drainage and roads.

The Australian Government will spend $195 million on 27 specific projects to assist in addressing social and economic disadvantage within the Indigenous population and the current deficiencies in the available social, community and common-use infrastructure. These investments will alleviate the critical shortfall in infrastructure relating to health, aged care, housing, employment, transport, education and training, family and children’s services.

The Ord River Irrigation Area is well established, currently comprising approximately 14,000 hectares of agricultural land that produced in excess of $95 million of production in 2007/2008. The most significant move towards establishing this irrigation area occurred in the 1960’s and 1970’s with the development of the Kununurra Diversion Dam and the Ord River Dam respectively. The Kununurra Diversion Dam created Lake Kununurra and the Ord River Dam created Lake Argyle. These developments allowed for a supply of water for agricultural production in the dry season as well as water releases for the hydro power station at the Ord River Dam. The development of the Ord River Dam was intended to allow an increase in land under irrigation beyond that made possible by the Kununurra Diversion Dam (the Stage 1M1 area), predominantly in an area known as the Stage 2 M2 area. This has not been developed until now. The Ord-East Kimberley Development Plan will allow for the release of an initial 8,000 hectares of agricultural lots within the Weaber Plains area in 2011. While this area of land is being prepared all the necessary scoping work for another land package of up to 6,680 hectares comprising the Packsaddle, Ord West Bank and Mantinea areas will be conducted. Consideration is also being given to potential future land releases including the balance of the Stage 2 M2 area: the Knox Creek and Keep River Plains, as well as areas of Cockatoo Sands not previously considered for agricultural development.

The Western Australia Government is committed to ensuring the expansion of the irrigation area will preserve the biodiversity and integrity of the natural landscape and cultural heritage. This is provided for through an array of environmental management plans.
Providing water for irrigation is a central component of the project. Currently 350 gigalitres per annum of water is allocated for the existing Stage 1 M1 area. An additional 400 gigalitres per annum of water is available for diversion from Lake Kununurra and the first 33km of the Ord River downstream of the Kununurra Diversion Dam. The additional allocation is sufficient to supply developments on the Weaber Plains, the remainder of the Stage 2 M2 area, and potential developments on the Packsaddle Plain and Ord West Bank area. A further 115 gigalitres per annum is allocated for diversion downstream of House Roof Hill (55 km downstream of the Kununurra Diversion Dam), for development of Mantinea and other areas in the vicinity. A new main irrigation channel and associated off-farm infrastructure is being designed to allow a water service provider to service the new land releases through effective and efficient irrigation services.

The Western Australian Government has partnered with the traditional owners of the land, the Miruwig and Gajerrong people. The partnership is based on the Ord Final Agreement (OFA), which was executed on 6 October 2005 as a framework for the Miruwig and Gajerrong people to receive a $57 million compensation package for the extinguishment of native title over 65,000 hectares of East Kimberley land, and for the environmental and social impact of the Ord Stage 1 Project. The OFA also provides for an Aboriginal Development Package (ADP) which will enable the Miruwig and Gajerrong people to participate in the development as employees and in businesses. The ADP will also provide for skills enhancement and in doing so, forms the basis for major opportunities, particularly for young people, to develop skills and to participate in the mainstream economy of the region. The benefits of the OFA extend to the community as a whole by:

- allowing for economic development by resolving native title and clarifying the status of heritage protection in those areas identified for agricultural and infrastructure development
- expanding the region’s economic base
- increasing jobs and wealth for the community from the development of the land
- providing community benefits and increased wealth through the improved participation of the Miruwig and Gajerrong people in the local economy

- the expansion of Kununurra
- the establishment of parks for conservation, recreation and tourism
- the protection of the environment and cultural heritage of the region.

The East Kimberley Development Package builds on the Western Australian Government’s decision to proceed with investment in the Ord Irrigation Expansion Project around the town of Kununurra. The Commonwealth Government’s investment in social and common use infrastructure in the East Kimberley Region will stimulate economic growth and employment opportunities, and promote healthy, strong and resilient communities capable of capitalising on these opportunities. The individual projects under the East Kimberley Development Package may require assessment under State and/or Federal environmental legislation. If this is the case, appropriate approvals will be sought.

An education and training package will provide substantial upgrades to Kununurra Primary School and District High School and an expansion or relocation of the Community Library. In addition, a teacher training facility will be integrated within the Kununurra High School Precinct. There will be an upgrade to the Wyndham Early Learning Activities Centre and a new transportable building provided for use by the Warmun Early Learning Centre. The package will also provide for new facilities to be constructed at both the Kununurra and Wyndham TAFE campuses to meet local needs. Community meeting rooms will be built in Kununurra and at the communities of Kalumburu, Oombulgurri and Dawul, along with an early childhood building at Jundranung Remote Community.

The Commonwealth’s education and training initiatives will encourage and enable the Indigenous community to contribute to and participate in the opportunities offered by the expansion of agricultural activities in the region. To realise the full potential for enhanced economic participation it is essential that all residents in the East Kimberley enjoy good health and have access to appropriate health services. Health needs are complex and are intertwined with social well being, welfare status, employment, housing, education, and community service provision.
The health infrastructure investment package is targeted at reducing the high incidence of ‘lifestyle’ and related diseases, particularly within the Indigenous population. In Kununurra, projects will include a major expansion of the Kununurra hospital, redevelopment of Wyndham health facilities, construction of a short stay patient accommodation facility, refurbishment of the Sobering Up Centre and construction of health care service provider housing. In addition, the Commonwealth, through the Health and Hospitals Fund Renal Services Project, will be expanding renal dialysis services in Kununurra. In Wyndham, health facilities associated with the hospital will be redeveloped; the Residential Rehabilitation Service Facility will be expanded and the Sobering Up Centre will be refurbished. Remote aged care services facilities at Kalumburu and Warmun will be upgraded. The remote clinic at Warmun will be refurbished or replaced and staff accommodation will be provided at the remote clinic in Kalumburu. A range of environmental health measures, such as incinerators and fencing around sewerage ponds, will be introduced in the communities of Warmun, Kalumburu and Oombulgurri.

The capacity to enjoy good health is greatly assisted by the opportunity to live in functional and clean accommodation. The housing infrastructure investment package will deliver improved outcomes for Indigenous people and will provide the foundations for lasting improvements in living standards, social and economic well being and access to opportunities such as employment and education. Additional social housing will be built in Kununurra and Wyndham. Transition housing will be constructed as an alternative to social housing and provided to Indigenous people to assist them to enter and remain in employment. Improved transport links are critical to the future of the region and the transport infrastructure investment package will fund an upgrade to the Wyndham Port Facility, which is essential to accommodate the increased trade activities resulting from the expansion of the Ord River Irrigation Area. The package also provides for the construction of a separate patient transfer facility at Kununurra airport and refurbishment of the airport terminal.

The vast distances between regional centres means community infrastructure, such as sports facilities, and the promotion of Indigenous culture are important to the development and maintenance of a healthy, active and strong community. The investment package provides for upgrades to local sporting facilities in Kununurra, further support for the local Indigenous arts sector by funding to the Waringarri Art Centre and the construction of shared office facilities for up to 30 staff of the Gelganyem Trust and the Yawoorroong Miriwiung Gajerrong Yirrgab Noon Wong Dawang Aboriginal Corporation (MG Corporation).

In Wyndham, the local swimming pool will be upgraded, a community jetty will be developed to facilitate safe access to deep water and the picture gardens will be improved.
“The Ord-East Kimberley Development Plan represents a new investment in the region of $415 million.”

Premier; Minister for State Development
Hon. Colin Barnett
People and climate

The project area is the East Kimberley Region, including the Shire of Wyndham East Kimberley and the community of Warmun in the neighbouring Shire of Halls Creek. The area is approximately 121,200 sq km in size and according to the 2006 Census had a population of 7,775 residents. Approximately 34% of the region’s population identifies as Indigenous, although this is widely believed to be an underestimate of the actual Indigenous population in the region. By 2020, the population of the region is forecast to reach at least 12,000 people.

The main town in the East Kimberley, Kununurra, was settled in the 1960s to service the construction of the first stage of the Ord Irrigation Scheme. Kununurra is 750 kilometres from Darwin and 3,205 kilometres from Perth by road.

The second largest town is Wyndham, approximately 100 kilometres north-west of Kununurra. Wyndham has a permanent population of 800 people, with the main economic activity focused around the port facility. Approximately 90,000 head of live cattle and minerals from mines in the East Kimberley are exported through the Wyndham Port annually.

Supplies for the resources sector in northern Australia are also imported through the port. The port is also increasingly servicing the tourism industry, playing host to specialist cruise ships that visit the East Kimberley Region.

Climate and climate change

Kununurra has a sub-tropical climate with an average annual maximum temperature of 39 degrees Celsius (°C) and an annual average rainfall of 830 millimetres (mm) (Figure 1) which has demonstrated an increasing trend (Figure 2). Most of this rainfall is from October to April with the months of May to September tending to be very dry.

![Figure 1: Average annual rainfall](image1)

![Figure 2: Trend in annual total rainfall 1970-2008 (mm/10yrs)](image2)
“Our aim is to see Kununurra emerge as a major regional city with a vibrant economy founded on agriculture and eco and cultural tourism.”

Minister for Regional Development; Lands
Hon. Brendon Grylls
The Ord-East Kimberley Development Plan

The Ord-East Kimberley Development Plan is a large scale nation building endeavour that will create stronger, vibrant and sustainable regional communities in the East Kimberley. The vision is for an expansion of the irrigated agricultural area in the East Kimberley to take advantage of the availability of both land and water. This will grow the regional economy, generate employment and provide social and economic benefits for the local community. The benefits of the project will be shared across the East Kimberley Region, including specific investments in the towns of Kununurra and Wyndham and also the communities of Warmun, Oombulgurri, Dawul, Jundranung and Kalumburu. Any necessary environmental approval processes at State and Federal level will be met.

The new investment in the region of $415 million will provide significant employment opportunities and improvements in the lifestyle and standard of living of residents. It will make the East Kimberley more attractive for private sector investment, both domestic and foreign, and for domestic and international visitors. A more vibrant community will assist in attracting and retaining skilled people and their families to the region.

What will be delivered

The Ord-East Kimberley Development Plan will deliver sustainable economic growth and generate employment opportunities in the East Kimberley Region. Work on projects will begin in 2009. The direct benefits to the East Kimberley Region will be delivered in areas including:

- agriculture development
- water, road and other infrastructure
- education and training
- health and housing
- Indigenous economic development
- transport
- community facilities.

The Ord-East Kimberley Development Plan will be delivered through a partnership between the Western Australian and Australian Governments. The Australian Government component of the project is known as the East Kimberley Development Package and the Western Australian component the Ord Irrigation Expansion Project.

The partnership is based on four guiding principles:

1. The Australian Government’s investment package will be used to fund social and common-use infrastructure that targets economic and social disadvantage and brings long-term, sustainable benefits to the whole of the East Kimberley Region.
2. The Western Australian Government will fund those infrastructure works directly related to the development of additional irrigated land associated with the Ord Irrigation Expansion Project, including the upgrading of existing irrigation channels, construction of new irrigation and drainage channels, roads and services.
3. Where possible, the Australian Government’s new investments are delivered to the East Kimberley Region through existing agreements and frameworks to minimise delay and cost, as well as to acknowledge and build on the consultations and engagements already undertaken between Governments, Indigenous representatives, stakeholder groups and the broader community.
4. The East Kimberley Development Package takes into account the shared commitment by the Australian and State Governments to national water reform and the National Water Initiative to increase the efficiency and sustainability of Australia’s water use.

DEcision MAKiNG AnD CONSULTATION

The scale and complexity of the Ord-East Kimberley Development Plan requires participation and investment from a broad range of stakeholders. The complexity of the project means that it is necessary for the Western Australian Government to manage the implementation of both the Commonwealth and State Government (Royalties for Regions) funded projects. The governance structure developed by the Government of Western Australia (Figure 3) indicates how the agreed management of the Ord-East Kimberley Development Plan will function.
The Ord-East Kimberley Development Plan continued

The Ord Irrigation Expansion Project is being managed by the Department of Regional Development and Lands and the East Kimberley Development Package is being managed by the Department of State Development.

Government agencies are responsible for delivering different aspects of the project and providing advice on how the project benefits can be realised. Decisions are managed and coordinated through a high level governance framework supported by a team of project managers and officers within the Department of Regional Development and Lands. The Ord Irrigation Expansion Project may require assessment under State and/or Federal environmental legislation. If this is the case, necessary approvals will be sought.

Ord Irrigation Expansion Project

The Western Australian Government’s high level commitment to the Ord Irrigation Expansion Project is demonstrated by the participation of senior Government Ministers, industry experts and government officials in the decision making processes. At the apex of the project governance framework is a Ministerial Council, comprising the Premier, Minister for Regional Development, Minister for Water and Minister for Agriculture and Food. This Ministerial Council is advised by the Ord-East Kimberley Development Plan Steering Committee, which consists of Directors General and Chief Executive Officers from relevant State Government agencies. The Ord-East Kimberley Development Plan Steering Committee draws on the expertise of local and regional people via the Community Reference Group and State Government officers.

Engagement with the community is facilitated through a Community Reference Group and three community task groups that are responsible for different aspects of project delivery. This includes the Weaber Plains Task Group, Social Infrastructure Task Group and the Ord West Bank, Mantinea, Packsaddle Task Group. The Community Reference Group and task groups advise the Western Australian Government on community perspectives associated with the Ord Irrigation Expansion Project.

Continuous engagement with the Minuwung and Gajerrong people throughout the project occurs through the MG Corporation.

East Kimberley Development Package

Commonwealth investments in the East Kimberley Region are the result of a joint assessment of economic and social development needs by the Australian and Western Australian Governments. The Commonwealth’s participation in the joint assessment was led by the Hon Gary Gray AO MP, Parliamentary Secretary for Western and Northern Australia, with support from the Office of Northern Australia. The Western Australian Government’s participation was led by the Hon Brendon Grylls MLA, Minister for Regional Development; Lands, supported by the Department of State Development.

For the joint assessment, the Hon. Gary Gray met and discussed elements of the East Kimberley Development Package with all relevant Commonwealth and State Ministers, and travelled to the region on two occasions to meet with Indigenous leaders, local service providers, stakeholders, and local government representatives, as well as members of the local community. He also kept the Northern Territory Government informed of the Commonwealth’s plans. Five high level Inter-Departmental Committee meetings were held to coordinate input from other Commonwealth agencies.

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The joint assessment recommended 27 projects totalling $195.0 million. The Western Australian Government is responsible for implementing 21 specific projects, totalling $177.9 million. These projects are covered by a National Partnership Agreement, through which both parties commit to working together to support nation building and economic stimulus objectives while addressing social and economic disadvantage in the East Kimberley Region. The Australian and Western Australian Governments will work collaboratively to develop implementation plans for each project, and to develop a location-specific Indigenous workforce implementation plan for the East Kimberley Development Package. The project governance framework for these projects will be the same as for the Ord Irrigation Expansion Project previously outlined.

A further six infrastructure projects, totalling $17.1 million, will be funded through direct provider engagement or direct agreements with the Shire of Wyndham East Kimberley (outside the National Partnership Agreement). The Commonwealth will consult with the Western Australian Government, the Council and the Community Reference Group on these projects to deliver the best possible outcomes for the local community.

**TIMEFRAMES**

The predictable weather patterns that make the East Kimberley Region ideally suited for agriculture also make it impossible to undertake large scale construction activities all year round. The delivery of new irrigated agricultural land and water infrastructure is particularly difficult during the wet season and has been scheduled to coincide with the two dry seasons in the lead up to the land release in 2011. The construction of transport infrastructure including road, airport and port upgrades is also planned with the seasons in mind.

The construction of education, health, and community infrastructure is less susceptible to seasonal delays. Construction activities that prioritise the building of roofs and walls in the dry season and internal fit out in the wet can ensure construction activities continue all year round. The delivery of social and community infrastructure will commence in 2009.

**ENGAGING THE COMMUNITY**

Building accountability and a productive relationship with the community and key stakeholders are key objectives of the Ord-East Kimberley Development Plan. Ongoing community input is critical for informed decision-making.

The community has been encouraged to express its views and provide input on the project through a variety of means including:

- local venues such as libraries
- local events such as the Ord Valley Muster and the Kununurra Agricultural Show
- public displays
- community forums, briefings and workshops
- community newsletters
- guided tours of the project area
- local television, radio and newspapers.

The Community Reference Group continues to play a pivotal role in ensuring the community’s views are represented.

**DELIVERING INDIGENOUS BENEFITS**

One of the driving forces for the Ord-East Kimberley Development Plan is the improvement of the financial and social well being of the local Indigenous community by providing education and training, employment and direct ownership opportunities.

The high level of welfare dependency in the East Kimberley is a current concern. The age profile of the population suggests a substantially greater problem in coming years if something is not done to improve Indigenous employment.

The Ord-East Kimberley Development Plan is not simply about delivering an increase in economic activity in the region. It is also about providing opportunities for the most severely disadvantaged in the East Kimberley Region.

**The Ord Final Agreement**

The Western Australian Government has partnered with the Miriwin and Gajerrong people who are the traditional owners and custodians of the land upon which agricultural lots will be released as part of this project. This partnership provides a framework in which the Miriwin and Gajerrong people can...
The Ord-East Kimberley Development Plan continued

benefit from the future development of the Ord River Irrigation Area, by delivering better health, education, training, employment and direct ownership opportunities.

The partnership is based around the Ord Final Agreement (OFA). Signed on 6 October 2005, the OFA includes a $57 million compensation package for the extinguishment of native title over 65,000 hectares of East Kimberley land, and for the negative environmental and social impacts of the Ord Stage I Project. Under the OFA, the Miriuwung and Gajerrong people will receive areas of land in and around the proposed agricultural regions and communities, as well as funds for the establishment and management of the MG Corporation to act on behalf of the Miriuwung and Gajerrong people.

The compensation package includes a range of initiatives that focus on:

- developing the capacity of the Miriuwung and Gajerrong people to engage in the local economy and benefit from any future development
- improved land management of key areas in conjunction with the Miriuwung and Gajerrong people
- benefits for the indigenous community as a whole rather than any single person or group.

The major components of the OFA include:

- $24 million over 10 years to establish and operate the new MG Corporation. This includes setting up a special Economic Development Unit and an Investment Trust
- $15 million of land to be transferred to the MG Corporation including Yardungarri (50,000 hectares) and 19 Community Living Areas. The figure includes a percentage of future land development
- $11 million for the Ord Enhancement Scheme to address the recommendations of the Aboriginal Social and Economic Impact Assessment of Ord Stage 1. This includes enhanced social services to the North-East Kimberley
- $6 million to the Department of Environment and Conservation to fund joint management arrangements for new conservation areas with the Miriuwung and Gajerrong people
- $820,000 to cover the freehold establishment costs
- $119.700 to the Department of Water to fund joint management arrangements for Reserve 31165.

Everyone in the East Kimberley Region benefits from the agreement by:

- the removal of economic uncertainty associated with native title and heritage, including avoiding further litigation to resolve outstanding compensation issues
- increased jobs and wealth for the community from the development of the land
- community benefits and increased wealth through the improved participation of the Miriuwung and Gajerrong people in the local economy
- provision for the development of Kununurra and the improvement of roads and other infrastructure in conjunction with the agricultural development
- the establishment of conservation parks for conservation, recreation and tourism
- the protection of the environment and cultural heritage of the region.

The Aboriginal Development Package

The Aboriginal Development Package (ADP) is provided for in the OFA. The Western Australian Government and the MG Corporation are negotiating the ADP, which Miriuwung and Gajerrong leaders recognise is a once-in-a-lifetime opportunity for their people to break out of a cycle of social disadvantage and welfare dependence.

The ADP will enable and encourage the Miriuwung and Gajerrong people to participate in the economic opportunities of the Ord Irrigation Expansion Project and provide them with the capacity to participate in the East Kimberley Development Package. The Western Australian Government and the Miriuwung and Gajerrong people agree that the scope of the ADP is to be focussed on the Ord Irrigation Expansion Project, which will enable the widest
possible range of employment, contracting and business opportunities to be considered.

The Office of Native Title has developed the ADP in close consultation with the MG Corporation, Western Australian Government agencies, Commonwealth Government agencies, training providers, and Aboriginal trust organisations located in Kununurra. A final agreement on the ADP is anticipated by the end of 2009 between the Western Australian Government and the MG Corporation.

The ADP will draw on the principles that were established in the OFA and also include some additional ones. The range of benefits are to be focused on achieving outcomes for the Miriuvung and Gajerrong people in employment, training, participation in tendering for goods and services, the development of business capacity, and the acquisition of a proportion of the freehold agricultural land. The ADP also provides for consultation during the development and for Aboriginal heritage protection.

Some of the elements under consideration for the package include:

- an audit of the Miriuvung and Gajerrong population to determine their skills, work experience and employment aspirations, which will then be matched to suitable employment in the region
- the creation of funds that can be used to supplement existing training programs, address barriers to employment and reward achievement by employees and employers
- building the capacity of the MG Corporation and the Western Australian Government to implement the ADP
- the introduction of intensive mentoring arrangements to support employees, their families and employers to achieve sustained employment outcomes
- providing Miriuvung and Gajerrong people and other Indigenous businesses with opportunities to tender for goods and services
- supporting the development of Miriuvung and Gajerrong businesses
- supporting the MG Corporation’s right to acquire and purchase farmland under the OFA.

The ADP will improve the MG Corporation’s capacity to participate in the Commonwealth Government’s East Kimberley Development Package and the part of the State Government’s Ord Irrigation Expansion Project that relates to the development of farmland on the Weaber Plains.

The Ord-East Kimberley Development Plan is not simply about delivering an increase in economic activity in the region. It is also about providing opportunities for the most severely disadvantaged in the East Kimberley Region.
The Western Australian Government will release 8,000 hectares of agricultural land in 2011.
Ord Irrigation Expansion Project

The Ord Irrigation Expansion Project is focused on the delivery of 8,000 hectares of irrigated agricultural land as the first stage in the achievement of a longer term goal to maximise irrigation potential in the region. This includes four potential packages of land in Western Australia and one in the Northern Territory.

The project will deliver about 8,000 hectares in the Weaber Plains in 2011. This area has already received many of the necessary statutory and other approvals to proceed. The project is also progressing the scoping work required for three additional land releases in the Pasksaddle (1,380 hectares) and Mantinea areas (4,000 hectares) and Ord West Bank (1,300 hectares) which is likely to occur post 2011 (Figure 4).

**WEABER PLAINS**
The Weaber Plains area is being developed for release in 2011. This area comprises 8,000 hectares of mainly Aquitaine clay soil abutting the existing Ord Stage 1 to the north-east of Kununurra (Figure 5). The Weaber Plains area is the first parcel of land in the area known as the Stage 2 M2 area which includes land in the Knox Creek Plain and Keep River Plain (Figure 5). See 'Concepts for future development of agricultural land in the East Kimberley' on page 40. The development of the Weaber Plains area is a strategic choice, allowing the possibility for future development of the remaining Stage 2 M2 areas.

The Weaber Plains area has already received the approvals to proceed and is the largest land parcel available for development as part of this project. The Department of Agriculture and Food has also demonstrated that this area is suitable for a range of crops. For these reasons and its strategic importance in terms of potential future land development, the Ord Irrigation Expansion Project is focussing on delivering this land for release in 2011.

The development of the remaining area of the Western Australian Stage 2 M2 area (Knox Creek Plains) is currently constrained from an agricultural expansion perspective by the possible development of a base metals mine at Sorby Hills (Figure 5). Once this project has exhausted its productive capacity the land will be rehabilitated and made suitable for agriculture. This will allow a further 8,000 hectares of land to be developed. See ‘Concepts for future development of agricultural land in the East Kimberley’ on page 40.

More information about the Weaber Plains area can be found in Appendix 2 – Agricultural Production in the Ord.
ORD Irrigation Expansion Project

Current development area
- Weaber Plains

Potential development areas
- Mantinea
- Ord West Bank
- Packsaddle

Figure 4: The Ord-East Kimberley Development Plan.
Developing land and delivering to market

LandCorp will manage the process of delivering the initial farm lots to ensure all necessary environmental conditions are met and environmental approvals are obtained. It will also manage planning approvals, subdivision approvals, the creation of farming lots and the marketing and sale of land for the 8,000 hectare Weaber Plains area. An example of a subdivision plan for the Weaber Plains area is shown in Figure 6.

LandCorp is in an excellent position to deliver the agricultural land. It has experience delivering land subdivisions in remote and challenging locations, and has a good working relationship with key local stakeholders including the Shire of Wyndham East Kimberley and the MG Corporation.

The method of sale of Weaber Plains land is being finalised with options including conventional sale, auction or tender.

Activities in financial year 08/09

- LandCorp will undertake activities related to preparation of environmental management plans, Federal environmental approval, dry season flora and fauna surveys, planning activities associated with Western Australian Planning Commission approval and preparation of marketing and land sales awareness materials.

Activities in financial year 09/10

- LandCorp will undertake activities related to the completion of environmental flora and fauna surveys for Weaber Plains, Mantinea, Ord West Bank and Packsaddle, completion of all environmental management plans, subdivision approvals and scheme amendments.
- LandCorp will continue to manage the subdivision awareness/marketing program and undertake land valuation assessments.

Activities in financial year 10/11

- LandCorp will focus on the marketing and sales of Weaber Plains irrigation land including management of the subdivision awareness program and marketing land for sale.

Activities in financial year 11/12

- Land sales will be completed and LandCorp will manage land ownership transfer activities.
selecting the water service provider and setting a water price

The Department of Water is responsible for selecting the water service provider for the current 8,000 hectares and future expansions, establishing the water pricing arrangements and for water allocation licensing.

The Department of Water will run a two stage selection process for the service provider, beginning with a register of interest (opened in June 2009). Once details are finalised around the technical and financial aspects of providing irrigation services to the new area, the Department of Water will begin its formal selection process. This will involve the Department of Water releasing a detailed prospectus on the water service business and requirements, with interested parties submitting applications based on their technical and financial suitability in delivering irrigation water services.

Once the preferred provider has been announced, the provider will apply to the Economic Regulation Authority for its water services licence.

The Department of Water will also establish the pricing arrangements for the new irrigation service.

This will include details on ownership and pricing of the $119 million in new irrigation infrastructure. Once the service provider is selected, the Department of Water will negotiate with the new provider to determine the most suitable pricing arrangements for the area.

**Activities in financial year 08/09**

- Department of Water to commence register of interest for the service provider

**Activities in financial year 09/10**

- Department of Water to release the detailed water services prospectus
- Department of Water to select the water service provider
- Department of Water to negotiate and establish specific pricing arrangements

**Activities in financial year 10/11**

- Department of Water to assess licence application for new water allocation
- Department of Water to finalise licence conditions
- Department of Water to issue licensed water entitlements to service provider / users
DELIVERING INFRASTRUCTURE FOR IRRIGATED AGRICULTURE

A significant amount of new infrastructure is required to prepare Weaber Plains for irrigated agriculture in 2011 (Figure 10). Works commenced in 2009 and will continue until the land is released in 2011 (Figure 7). LandCorp is managing the infrastructure delivery.

Water infrastructure

The most significant infrastructure component is the construction of new water infrastructure, principally irrigation channels and management of wet season surface water and drains. The focus is on off-farm bulk water delivery. The Water Corporation, which currently owns the existing bulk water delivery channel (known as the M1 Channel), has begun the necessary works in order to deliver sufficient water to the Weaber Plains area. The new water infrastructure (including the new delivery channel, known as the M2 Channel) will be built in stages.

A typical bulk water delivery channel is shown in Figure 8. Additional control structures will also be constructed during the Ord Irrigation Expansion Project.

The activities for delivering the bulk water delivery system (including reinstating the M1 Channel to its original design capacity) are indicated below.

### Activities in year 2009

- **Forward Works**
  - Materials sourcing
  - Survey geotechnical investigation
  - Traffic planning
  - Environmental approvals
  - Development of environmental plans
  - Engineering design

- **Phase One Construction**
  - Weaber Plains Road to subdivision
  - M2 Channel to subdivision
  - Hillside drains
  - Engineering design of Phase 2

- **Phase Two Construction**
  - Subdivision roads
  - Subdivision irrigation supply channels
  - Telecommunications within subdivision
  - Regulators, SCADA (M2 Channel)
  - Fencing
  - Sale of land

### Activities in year 2010

- **LandCorp**
  - Responsible for constructing the M2 channel to a point of distribution within the Weaber Plains subdivision, including structures and channel protection drains.

### Weaber Plains Road extension

The Weaber Plains Road will be extended in order to service the Weaber Plains irrigation area subdivision together with off-farm roads within the agricultural land subdivision. This will include a 16 km extension of the existing Weaber Plains Road to the Weaber Plains irrigation subdivision. A typical road section design is shown in Figure 9.
Ord Irrigation Expansion Project continued

Activities in year 2009

Forward works related to:
- Determine the road alignment for Weaber Plains Road extension;
- Determine material extraction areas and obtain necessary environmental approvals for extraction;
- Complete ground level survey along agreed road alignment;
- Determine road traffic loading and subsequent road profile design parameters;
- Determine standard of road road surface treatments for Weaber Plains Road and subdivision access roads.

Activities in year 2010

- In conjunction with other construction agencies, provide input to development of road specification and design;
- Commence construction of Weaber Plains Road to irrigation subdivision.

Activities in year 2011

- Complete construction of Weaber Plains Road.
- Complete construction of off-farm subdivision roads.
- Hand over roadworks to Shire of Wyndham East Kimberley.

Telecommunications infrastructure

Additional telecommunications infrastructure is being considered. It is anticipated that this infrastructure will supply mobile coverage to new farms.

Power infrastructure

The provision of power to the farm lots is currently being investigated by LandCorp and Horizon Power, the State’s regional power provider. The State Government is working closely with the community to ensure that the options being considered are consistent with the requirements of the farming community. Options being investigated range from self supply to combinations of common user service networks.

Figure 10: The irrigation infrastructure projects for the development of the Weaber Plains.
ENVIRONMENTAL MANAGEMENT

The Western Australian Government is committed to ensuring the expansion of the irrigation area will preserve the biodiversity and integrity of the natural landscape and cultural heritage. A key part of this is to ensure a strong environmental approach is taken.

The Environmental Protection Authority (EPA) required environmental surveys and the preparation of specific management plans to minimise the environmental impacts of the development. Together, the management plans cover the required environmental management for each phase of the development: pre-construction, construction and operation. They cover management of both the 8,000 hectares of land released for irrigated agriculture and the approximately 10,000 hectares of the environmental buffer area which surrounds the land release (see Figure 6). The management plans include:

- Groundwater Management Plan
- Surface Water Management Plan
- Weeds, Plant Pathogens and Pest Animals Management Plan
- Fire Management Plan
- Biodiversity Management Plan
- Flora and Fauna Protection Plan
- Dust Management Plan
- Mosquito and Disease Vector Management Plan
- Soil Management Plan
- Revegetation Management Plan
- Chemical Management Plan
- Infrastructure Maintenance Plan
- Environmental Education and Training Plan.

All plans relating to the management of water must comply with the National Water Initiative including active surface water management to achieve zero dry season tail-water return and minimise groundwater accessions, and the management of any long-term groundwater accumulation to avoid any significant water resource or associated environmental impact.

WATER AVAILABILITY AND USE

The Ord Irrigation Expansion Project would not be possible without the construction of the Ord River Dam which created Lake Argyle in 1971. The storage capacity of Lake Argyle is 10,763 gigalitres (GL). The lake normally has a surface area of 1,000 square kilometres. The Ord River flows out of Lake Argyle.

Although the Ord River is a significant water resource, it is under increasing pressure from the competing demands of irrigation and hydro-power generation coupled with the water requirements needed to maintain the environment. The Ord River water allocation plan was released in December 2006 by the Department of Water to set out water sharing arrangements and provide surety for new developments. The plan seeks to:

- provide for existing commitments to irrigation and hydro-power generation
- allocate additional water to meet future irrigation requirements
- identify new water release rules for the hydro-power station at the Ord River Dam that provide for the other allocations while enabling additional hydro-electricity to be generated by Pacific Hydro
- establish environmental flows to protect the ecology of the Lower Ord River below the Kununurra Diversion Dam.

Following the release of the plan, work has continued on improving the understanding of the hydrology of the Lake Argyle Catchment and establishing comprehensive ecological water requirements for the lower Ord River. This information is currently being used to revise the water release rules for the hydro-electric power station and to confirm the irrigation allocations.

Using water efficiently

Because of the growing demands on the Ord River, it is essential that all water users are as efficient as possible. Significant efficiency gains are expected in the existing irrigation area from further automation of current water distribution infrastructure and improved water scheduling.
Water for the generation of power

Water released for power generation contributes to irrigation use and environmental flows for much of the year. However, releases made for power generation alone draw Lake Argyle down and increase the risk and severity of restrictions on irrigation supplies and the environment in the future. Constraints on power generation are therefore required from mid levels in Lake Argyle to maintain acceptable environmental releases and irrigation supplies during dry periods.

Environmental flow requirements

The environmental flow has been set to meet current ecological values. When the allocation from the Ord River between the Kununurra Diversion Dam and Tarrara Bar (750GL/annum) is fully licensed and being diverted, the flow rate in the lower Ord River will drop from its current 65-75m³/second to a typical 42m³/second during the dry season. This dry season flow, with higher flows in the wet season, will fully meet the ecological requirements of the lower Ord River in 88 per cent of years. The Ord River water allocation plan is being updated to reflect currently available information and facilitate environmental impact assessment of the cumulative impact of changes to the flow regime of the lower Ord River that will result from the proposed developments.

Updating the Ord River Water Management Plan

Consistent with the allocations of the 2006 plan, water availability will be optimised by implementing precise operating rules for the Ord River Dam and the Kununurra Diversion Dam. The current sustainable diversion limit for the Ord River is determined as 865GL/annum (including diversion limit from the Ord River downstream of House Roof Hill). This is divided amongst current and planned irrigation areas (Table 1).

Table 1: The updated plan provides for the allocations at 95% reliability (unless otherwise noted).

<table>
<thead>
<tr>
<th>Utilisation of existing water (gigalitres)</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>350*</td>
<td>Ord Stage 1 (current and provision for growth)</td>
</tr>
<tr>
<td>400</td>
<td>Ord Stage 2 M2 Area</td>
</tr>
<tr>
<td>115</td>
<td>Downstream of House Roof Hill (inc Mantinea)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>865</td>
<td></td>
</tr>
</tbody>
</table>

* 100 gigalitres is at 90 percent reliability

The updated plan will be released for public comment later in 2009, in line with the stakeholder consultation for the current 8,000 hectare expansion project. While the allocation volumes have not changed from the 2006 plan, public comment is necessary to finalise the updated plan.

Commitments to the National Water Initiative

Western Australia is a signatory to the National Water Initiative (NWI) which is the platform for water reform across Australia. NWI compliant water management is a key strategic objective of the Western Australian and Australian Governments and as such represents a key driver in the delivery and administration of the Ord Irrigation Expansion Project.

The updated Ord River water allocation plan will provide security of water for the environment, guide the granting of licences that will secure water entitlements for the development, and define water management accountabilities (including scheduling systems for water distribution and on-farm water recycling facilities) as required by the NWI.

The NWI also sets direction on best practice water pricing and institutional arrangements.

Current water demand for agricultural production

Most of the current water provided for agricultural production in the Ord River Irrigation Area is allocated to the Ord Irrigation Co-operative (OIC). The OIC holds a licence for the diversion of an average of 335GL/annum from Lake Kununurra which is based on a previous estimate of demand while sugar cane was still in production. Each shareholder of the OIC is provided with an annual water allocation of 17 million litres (ML) per hectare. Actual use varies each season in relation to the mix of crops sown and rainfall received over the wet season. While not all the area is planted each year, some areas may be cropped twice in the same year. An example of a recent crop mix and resulting water requirements is outlined in Table 2.

Ord Irrigation Expansion project continued
The OIC allocation (with 90-95% reliability) takes into account the requirements for irrigated production plus system delivery.

Agricultural producers adjacent to the Ord River are licensed for self-supply by the Department of Water and supplied by the Water Corporation. These land owners have established their systems to divert water directly from Lake Kununurra or the downstream river and do not require water services from the OIC. The total self-supply provision accounts for approximately 8.1GL/annum. However, not all of this water is specifically for agricultural production (mango and red grapefruit) and includes water for public uses. The Ord River water allocation plan sets aside a total of 15GL/annum for riverside users in the existing irrigation area.

Future water demand for agricultural production

The Ord River water allocation plan identifies over 15GL/annum for future developments beyond the existing 15GL/annum already identified for the existing irrigation area. Four hundred GL/annum (with 95% reliability) has been allocated for the development of the Stage 2 M2 area and 115GL/annum will be made available downstream of House Roof Hill for any development in this area, including the Mantinea areas.

In line with the State’s obligations under the NWI, the Department of Water has advised that any new irrigation developments will need to establish efficient water distribution infrastructure and on-farm watering equipment to achieve best irrigation practices.

Depending on irrigation distribution efficiency, the allocations for all developments will be set at around 10-12 ML per hectare per year, to accommodate water demand for the likely crop mix. Using trading, water may also be moved between higher and lower value crops, as currently done within the OIC.

Preliminary crop water requirements by irrigation system and season have been compiled by the Department of Agriculture and Food (Table 2). The list indicates average water use which may vary due to local conditions.

Table 2: Preliminary irrigation requirements (assuming an average wet season).

<table>
<thead>
<tr>
<th>Crop Type</th>
<th>Season</th>
<th>In paddock crop irrigation requirement (ML/ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chickpeas</td>
<td>Dry</td>
<td>4.8</td>
</tr>
<tr>
<td>Chia</td>
<td>Dry</td>
<td>6.9</td>
</tr>
<tr>
<td>Other incl culinary beans</td>
<td>Dry</td>
<td>6.3</td>
</tr>
<tr>
<td>Hybrid Seeds</td>
<td>Dry</td>
<td>6.4^1</td>
</tr>
<tr>
<td>Sorghum seed crops</td>
<td>Dry</td>
<td>6.4</td>
</tr>
<tr>
<td>Sweet Corn</td>
<td>Dry</td>
<td>4.1^1</td>
</tr>
<tr>
<td>Other seed crops (s/flower etc)</td>
<td>Dry</td>
<td>5.2</td>
</tr>
<tr>
<td>Cotton</td>
<td>Dry</td>
<td>7.0</td>
</tr>
<tr>
<td>Leucaena</td>
<td>Wet/Dry</td>
<td>9.2</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>Wet/Dry</td>
<td>17.5</td>
</tr>
<tr>
<td>Rice aerobic</td>
<td>Dry</td>
<td>6.6</td>
</tr>
<tr>
<td>Sandalwood</td>
<td>Wet/Dry</td>
<td>9.4^1</td>
</tr>
<tr>
<td>Bananas</td>
<td>Wet/Dry</td>
<td>20.2</td>
</tr>
<tr>
<td>Mangos</td>
<td>Wet/Dry</td>
<td>8.0</td>
</tr>
<tr>
<td>Red Grapefruit (citrus)</td>
<td>Wet/Dry</td>
<td>12.2</td>
</tr>
<tr>
<td>Fresh Beans</td>
<td>Dry</td>
<td>4.3</td>
</tr>
<tr>
<td>Pumpkin Jarrahale</td>
<td>Dry</td>
<td>5.8</td>
</tr>
<tr>
<td>Pumpkin butternut</td>
<td>Dry</td>
<td>5.8</td>
</tr>
<tr>
<td>Pumpkin zap</td>
<td>Dry</td>
<td>5.8</td>
</tr>
<tr>
<td>Pumpkin hps</td>
<td>Dry</td>
<td>5.8</td>
</tr>
<tr>
<td>Rockmelon</td>
<td>Dry</td>
<td>3.9</td>
</tr>
<tr>
<td>Honeydews</td>
<td>Dry</td>
<td>3.9</td>
</tr>
<tr>
<td>Water melons</td>
<td>Dry</td>
<td>5.8</td>
</tr>
<tr>
<td>Other hort crops</td>
<td>Dry</td>
<td>4.6</td>
</tr>
<tr>
<td>Cover crops / hay</td>
<td>Wet</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note:
- Excludes on-farm losses (i.e. run off, deep seepage etc.). Work completed on Ord Stage I
- ^1 Depends on type of crop, length of growing season and planting date.
- ^2 Preliminary estimate; further work required. Forest Products Commission may have more reliable data.
- ^3 Reduction in irrigation requirement possible.
**FUTURE LAND RELEASES BEYOND 2011**

The Ord Irrigation Expansion Project is also conducting scoping work on land releases additional to the 8,000 ha M2 area. There are currently a further three land packages being considered as part of the project.

**Ord West Bank**

Ord West Bank (Figure 11) consists of around 1,300 hectares of levee soils, of which approximately 1,000 hectares would be suitable for higher value horticultural crops.

There is currently an earth formed road running through the land release (known as Valentine Springs Road). Development of this land for irrigated agriculture may require the construction of a sealed road to replace Valentine Springs Road and provide all-weather access to the new development area.

As a consequence of the OFA, the area has native title and heritage clearance and is available for release and subsequent development once all approvals are in place. The area has undergone preliminary environmental assessment (including environmental surveys) and full environmental clearance is expected by 2011.

The irrigation water requirements for this land release under full development are approximately 10-15GL/annum. There is sufficient water under the current water allocations to supply this demand, although the mechanism and method for distribution and sale has yet to be determined.

---

**Figure 11: Ord West Bank**

**Figure 12: Mantinea is comprised of Mantinea East and Mantinea West.**
Mantinea

Located on the banks of the Ord River, 45 kilometres northwest of Kununurra, Mantinea is comprised of two geographic areas (Figure 12):

- Mantinea East which consists of approximately 1,000 hectares of levee soils that are suitable for higher value crops with potentially smaller unit farm sizes
- Mantinea West which consists of approximately 3,000 hectares of complex mixed clay soils that could be released as larger farm blocks.

Native title clearance for these areas has been secured through the OFA, and a preliminary environmental assessment has been conducted. Aboriginal heritage survey processes are underway to ensure that all requirements of the Aboriginal Heritage Act 1972 are met. These are expected to be completed by 2011.

Irrigation water for these areas, when fully developed, will be pumped direct from the Ord River. The mechanism and methodology of the water delivery will depend on cropping scenarios and are yet to be determined. An allocation of up to 115GL/annum is provided for diversion downstream of House Roof Hill.

Conceptual designs of irrigation and drainage infrastructure to service the two Mantinea areas were prepared in 1998. These designs will be reviewed in the context of flooding risk and drainage issues associated with the lower Ord River. Results of any new design would be incorporated in the documentation prepared for seeking final environmental approvals which are required before this land can be made available for irrigated agriculture.

Packsaddle

A substantial portion of the Packsaddle Plains area was developed under Ord Stage I (Figure 13). This area is currently being used to grow a variety of horticultural crops as well as Indian Sandalwood.

The land potentially available for new development on Packsaddle Plains comprises an area of approximately 1,380 hectares. The development opportunity is contained in scattered pockets of levee and complex clay soils that may be suitable for a range of horticultural and broad-acre crops.

Native title has been addressed with the traditional owners through the OFA and cultural surveys have been conducted in accordance with the Aboriginal Heritage Act 1972. Environmental assessments to meet the State’s environmental procedures and statutes have not yet commenced. Irrigation water for the area should be available from the Ord River within the existing Ord River water allocation plan and more may become available with adjustments to current licensing arrangements. Groundwater options might also be possible and will require investigation depending on crop type and irrigation methodology.

Further agronomical work, engineering work and soil surveying is required to confirm the optimum location of farming areas and crop suitability.
The Australian Government will spend $195 million on 27 specific projects to assist in addressing social and economic disadvantage within the Indigenous population and the current deficiencies in the available social, community and common-use infrastructure.
On 12 December 2008, the Prime Minister announced the Commonwealth Government’s $4.7 billion Nation Building - Economic Stimulus Package. The investment included $195 million over 2008-09 and 2009-10 for social and common-use infrastructure to support economic development in the East Kimberley Region.

The Commonwealth’s investment in the East Kimberley Region was conditional on a joint Commonwealth and Western Australian Government assessment of the most effective infrastructure projects to meet the social and economic development needs of the region. The joint assessment was guided by terms of reference agreed by the Commonwealth and Western Australian Governments on 24 December 2008.

The Commonwealth Government’s participation in the joint assessment was led by the Hon Gary Gray AO MP, Parliamentary Secretary for Western and Northern Australia, supported by the Office of Northern Australia. The Western Australian Government’s participation was led by the Hon Brendon Grylls MLA, Minister for Regional Development, supported by the Department of State Development.

The East Kimberley Development Package (the Package) was developed collaboratively with the Western Australian Government and is based on four guiding principles.

First, Commonwealth investments under the Package will be used to fund social and open access, common-use infrastructure that targets economic and social disadvantage and brings long-term, sustainable benefits to the whole of the East Kimberley Region.

Second, the Western Australian Government will invest an equivalent amount in infrastructure works directly related to the development of additional irrigated land associated with the Ord expansion, including the augmentation of existing irrigation channels, the construction of new irrigation and drainage channels, road access and services.

Third, where possible, the Commonwealth’s new investments will be delivered to the East Kimberley Region through existing agreements and frameworks to minimise delay and cost, as well as to acknowledge and build on the consultations and engagements already undertaken between Governments, stakeholder groups and the community.

And finally, the Package takes into account the shared commitment by the Australian and Western Australian Governments to national water reform, and the National Water Initiative to increase the efficiency and sustainability of Australia’s water use.

The Commonwealth decision to invest in the Package followed the Western Australian Government’s decision to proceed with investment in the expansion of the Ord River irrigation scheme around the town of Kununurra.

Western Australia has committed $220 million to the Ord Irrigation Expansion Project, which is focused on developing and delivering agricultural land, in conjunction with supporting infrastructure, including off-farm irrigation and drainage, roads and other services. The project will increase the amount of irrigated land in the East Kimberley Region from 14,000 to approximately 22,000 hectares.

The Package will assist in addressing social and economic disadvantage within the Indigenous population and the current deficiencies in the available social, community and common-use infrastructure. The investment will also alleviate the critical shortfall in infrastructure relating to health, aged care, housing, employment, education and training, family and children’s services.

The Package has also been designed to align with a range of current Government policy goals and frameworks.

• ‘Closing the Gap’ initiative – which seeks to resolve the disparity between the social and economic welfare levels of Indigenous and non-Indigenous Australians.
East Kimberley Development Package continued

- Council of Australian Governments (COAG) National Partnerships in the key reform areas of: Indigenous Health; Housing; Early Childhood Development and Economic Participation, as well as the National Partnership on Remote Service Delivery
- the Government’s $4.7 billion and $42 billion ‘Nation Building’ plans to support jobs, families and businesses during the current global economic downturn. The plans were announced by the Prime Minister, Hon Kevin Rudd MP, in December 2008 and February 2009
- the development and implementation of COAG’s National Social Inclusion agenda
- the Government’s commitment to the protection and conservation of Australia’s unique environmental assets, particularly the fragile landscapes of the Kimberley region

The Commonwealth’s investment proposals have been developed to target priority community needs in the areas of health, education, housing and accommodation, transport and community infrastructure.

A summary of the East Kimberley Development Package is provided in Table 3.

Table 3: East Kimberley Development Package summary

<table>
<thead>
<tr>
<th>Project</th>
<th>$ million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>$50 MILLION</td>
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<tr>
<td>Wyndham health facilities refurbishment</td>
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<tr>
<td>Kununurra Hospital Expansion</td>
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<tr>
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<tr>
<td>Residential rehabilitation facility in Wyndham</td>
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<td>Remote aged care services in Kalumburu and Warmun</td>
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<td>Environmental health measures in Kalumburu, Warmun and Oombulgurri</td>
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<td>Kununurra School Community Library expansion</td>
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<td>East Kimberley Teacher Training Facility within Kununurra High School</td>
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<td>Kimberley TAFE upgrade in Kununurra and Wyndham</td>
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<td>Waringarri Art Centre in Kununurra</td>
<td>1.6</td>
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<tr>
<td>Wyndham Picture Gardens</td>
<td>0.3</td>
</tr>
<tr>
<td>Wyndham Community Jetty</td>
<td>5.0</td>
</tr>
<tr>
<td>MG Corporation – Gelganyem Trust shared facility in Kununurra</td>
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</tr>
<tr>
<td>Total</td>
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</table>
For the purposes of the joint assessment and Commonwealth investments, the East Kimberley Region was defined as the region centred on the towns of Kununurra and Wyndham, adjacent to the Ord River irrigation area. Some East Kimberley communities, such as Kalumburu, Oombulgurri and Warmun, have strong cultural and economic ties to Kununurra and Wyndham. Where appropriate, investments in these communities were also considered in the joint assessment process.

$64.0 million in infrastructure investments will contribute to improving early education, schooling and training outcomes.
HEALTH INFRASTRUCTURE

The East Kimberley Health Infrastructure Package will deliver a total investment of $50 million in improved health outcomes in the East Kimberley Region. Health needs in the East Kimberley Region are complex and interrelated with social wellbeing, employment, housing, education and training, welfare status and the availability and quality of community services.

Chronic and preventable diseases are the areas requiring the greatest action. Health providers in the region have identified renal dialysis as their highest priority, with patients forced to leave their communities long-term for treatment in Broome or Perth. The Health and Hospitals Fund Kimberley Renal Services Project, announced as part of the 2009-10 Federal Budget, includes capital funding to establish a four station renal dialysis unit in Kununurra ($3.4 million).

Alcohol and substance abuse is also a major health and social issue in the region. Other investment priorities include primary and preventative health care, drug and alcohol services, short-term patient accommodation, housing for health service providers, improvements to remote clinics, aged care facilities and environmental health measures.

The Health Infrastructure Investment Package includes three primary health care projects for services in Kalumburu, Warmun and Oombulgurri. These remote communities have strong economic and cultural links to Kununurra and Wyndham. Improving primary and preventative health care services in these areas will reduce the incidence of chronic and acute illness in the community as well as reduce the pressure on acute health services in Kununurra and Wyndham.

Redevelopment of Wyndham Health Facilities - $3.4 million

The redevelopment of health facilities associated with the existing Wyndham hospital campus will enhance access to primary health care, residential aged care and new staff accommodation. The new facilities will be complemented by the construction of new staff accommodation to assist in the attraction and retention of qualified health professionals to ensure this program of work can be undertaken.

Project Leader: Western Australian Government.

Kununurra Hospital Expansion - $20.0 million

Construction of a comprehensive and integrated primary health care centre for the Kununurra area and surrounding communities. This project includes increasing the building footprint of Kununurra Hospital by approximately 2000m² to expand primary health and general practice services.
including child and maternal health, chronic disease prevention and management, health promotion and community mental health, and clinical education and training facilities.

**Project Leader:** Western Australian Government.

**Short stay patient accommodation - $4.0 million**

Construction of short stay accommodation for up to 16 patients in Kununurra. The type of patients expected to be accommodated include those who are receiving renal, oncology, cardiology, obstetric, gynaecology and paediatric services. The project will provide patients with a safe and welcoming place to stay when coming to Kununurra for medical treatment.

**Project Leader:** Western Australian Government.

**Residential rehabilitation facility - $3.2 million**

Expansion of the residential rehabilitation service facility in Wyndham, operated by Ngnowar Aewr Aboriginal Corporation. The facility upgrade will allow the service to begin treating families as a whole. This project will also construct a Detoxification Centre, Training Preparation Unit, a crèche and recreational facilities, on-site staff accommodation and paving for roads and pathways.

**Project Leader:** Western Australian Government.

**Remote aged care services - $5.0 million**

Refurbishment or replacement of aged care service facilities in remote locations. Kalumburu requires extensive work to rebuild a Home and Community Care Centre and Warmun’s aged care units require refurbishment.

**Project Leader:** Western Australian Government.

**Remote clinics - $2.0 million**

Refurbishment or replacement of the remote clinic in Warmun and construction of staff accommodation at the remote clinic in Kalumburu. The availability of fit-for-purpose clinics in remote locations is necessary to achieve National and State priorities for Indigenous health, which focus on closing the gap in Indigenous disadvantage. Staff housing is crucial for the smooth operation of remote clinics.

**Project Leader:** Western Australian Government.

**Environmental health measures - $6.8 million**

Improvements to dust control measures (road sealing), incinerators, and fencing sewage ponds and rubbish tips in the communities of Warmun, Kalumburu, Oombulgurri, and smaller communities and outstations surrounding Kununurra. In developing this initiative, consideration will be given to developing a local service provider model similar to that being used in the West Kimberley.

**Project Leader:** Western Australian Government.

**Sobering Up Centres - $0.6 million**

Refurbishment of Sobering Up Centres (SUCs) in Kununurra and Wyndham. The majority of SUC clients are Aboriginal and the SUCs operate to reduce Aboriginal deaths. The alcohol bans and restrictions across the Kimberley will ensure a continuing demand and focus on the provision of these support services.

**Project Leader:** Western Australian Government.

**Health service provider housing - $5.0 million**

Construction of houses in Kununurra for Western Australian Country Health Service employees and employees of government-funded health service providers to assist with the ongoing delivery of new health services provided through the East Kimberley Development Package. A mixture of housing will be constructed, including free-standing houses, townhouses and apartments.

**Project Leader:** Western Australian Government.
the education and training infrastructure

Investment Package will deliver a total investment of $64.0 million in infrastructure that will contribute to improving the early education, schooling and training outcomes in the East Kimberley Region. The package focuses on the following key areas:

- Early childhood development and education;
- Primary and secondary schooling;
- Post-compulsory further education; and
- Community training and meeting facilities.

Economic growth, employment opportunities and better education outcomes in the East Kimberley depend on the provision of quality early learning services, schooling and vocational training services and infrastructure. Concerted action in the areas of education and training will also improve the socioeconomic, employment status and workforce participation of Indigenous people.

Education outcomes in East Kimberley Region schools, particularly for Indigenous students, are poor. A major impediment to better education and training outcomes is the low level of engagement and attendance at school. Consultations with stakeholders have highlighted the need to improve the provision of early education, primary and secondary schooling and training services infrastructure.

The creation of distinctive early years, primary and secondary schooling services is part of a 0–17 years approach. Specific investments identified as priorities include access to and improved quality of early learning facilities in Kununurra, Wyndham and Warmun; the development of the primary and secondary schools on the Kununurra District High School campus; expansion of the school and community library facilities; teacher training facilities; improved trade training and TAFE facilities; and the construction of community meeting rooms in remote locations.

The expansion of the Ord irrigation scheme is also expected to increase the population in the East Kimberley Region, directly impacting on the effectiveness and capability of early learning services, schools and TAFE.

**Kununurra Primary School** - $25.0 million

Construction of a dedicated and distinctive primary school service on the Kununurra District High School site. The new Primary School will remain on the same site but will provide a distinctive service for primary age children as part of the 0–17 years concept.

*Project Leader*: Western Australian Government.

**Kununurra District High School upgrade** - $15.0 million

The upgrade and refurbishment of Secondary School facilities at the Kununurra High School. The expansion and refurbishment of the Secondary School will also support the development of Trade Training and TAFE recognised courses at the High School. Education outcomes will be improved by upgrading and fully integrating early learning, Primary and Secondary facilities.

*Project Leader*: Western Australian Government.

**Wyndham Early Learning Activities Centre** - $1.6 million

Redevelopment of the Wyndham Early Learning Activities (WELA) centre. The current Wyndham Early Learning Centre is inadequate and a centre will be established to promote best learning outcomes for young children and their families in the community.

*Project Leader*: Western Australian Government.

**Warmum Early Learning Centre** - $0.6 million

Construction of a new transportable building for use by the Warmun Early Learning Centre, to replace an existing old building in need of repair. This is the only child care service in the community. Warmun has strong economic and cultural links to the Kununurra community.

*Project Leader*: Australian Government, through a funding agreement with the service provider.
Kununurra School Community Library expansion - $5.0 million

The expansion and/or relocation of the existing shared community library located on the Kununurra High School precinct, to accommodate the increased school and community population. A well-equipped community library and meeting place will provide both a schooling and community wide resource to engage with student, family and parental literacy. The Library will also provide access to Internet-based information and skills.

Project Leader: Western Australian Government.

East Kimberley teacher training facility - $3.5 million

Development of a teacher training facility to be integrated within the Kununurra High School precinct. The facility will provide specialised, culturally-appropriate training to student teachers and services for new and existing Kimberley teachers. The facility will also provide training tools to support the development of teacher training.

Project Leader: Western Australian Government.

Kimberley TAFE upgrade - $10.0 million

Construction of new facilities at both the Kununurra and Wyndham TAFE campuses, including specific trade training and general purpose classrooms. Prior to finalising the design of new facilities, an analysis of current and anticipated labour market needs will be undertaken to ensure the proposed training facilities will meet the needs of local employees and provide for an effective transition from training into employment. The development is part of the long term master plan for the Kununurra TAFE Campus to accommodate community and industry growth.

Project Leader: Western Australian Government.

Community meeting rooms - $2.3 million

Construction of culturally-appropriate community meeting rooms in Kununurra and the communities of Kalumburu, Oombulgurri and Dawul. This project will provide a safe and inviting environment and allow locals to maintain/reconnect with learning. The development of meeting places will greatly increase the likelihood of communities being able to develop activities to provide adult learning in areas such as health, cooking and information and technology.

Project Leader: Western Australian Government.

Early Childhood Building for Jundranung community - $1.0 million

Development of a purpose-built early childhood education facility along with a community meeting room in the remote Jundranung community. The current facilities are not satisfactory and do not meet the community’s needs. Improving and increasing access to community activities is also a necessary step to securing satisfactory community building, economic, employment and educational outcomes.

Project Leader: Western Australian Government.
East Kimberley Development Package continued

**HOUSING INFRASTRUCTURE**

The Housing Infrastructure Investment Package will deliver a total investment of $50 million for improved housing outcomes in the East Kimberley Region. Serious housing shortages in Kununurra have created issues of housing availability and affordability for the town’s residents with extreme rental prices beyond the means of many people, particularly members of the Indigenous community.

Overcrowding, homelessness, poor housing conditions and severe housing shortages are significant issues for Indigenous communities in the region. In addition, there are large waiting lists for public housing and the difficulty in finding housing in Kununurra or other centres has created disincentives for people to take up and retain employment opportunities.

Improved housing outcomes for Indigenous people will provide the foundation for lasting improvements in living standards, social and economic well being and access to life opportunities, such as employment and education. Transition accommodation is also needed to support Indigenous people’s transition to full employment by creating a clear, affordable and viable pathway to move from welfare to a working future.

The Australian Government, through various National Partnership agreements on Housing, is already making a significant investment in the East Kimberley Region by providing more social and Indigenous housing, particularly for Indigenous people. The Commonwealth’s investment in social and transition housing under this Package will complement these initiatives.

The provision of quality staff housing is identified by all levels of Government and the non-government sector as critical in the attraction and retention of staff, and the effective delivery of services to people in regional and remote areas. Staff housing investments in the region will be delivered through separate initiatives by both the Commonwealth and Western Australian Governments.

**Social housing - $30.0 million**

Construction of additional social housing in Kununurra and Wyndham for people meeting income test requirements on the same basis as existing social housing. This project will increase the stock of public housing in Kununurra and Wyndham and assist in reducing housing stress on Indigenous residents of the towns. This will improve Indigenous health and education outcomes, and reduce Indigenous disadvantage.

*Project Leader: Western Australian Government.*

**Transition housing - $20.0 million**

Construction of housing for Indigenous people to provide assistance and reduce disincentives as they enter the workforce. The project will involve a mix of housing types and will provide transitional accommodation for people entering employment, as an alternative to social housing. The Australian and Western Australian Governments will work together to develop flexible arrangements to optimise Indigenous employment and Indigenous business outcomes from the project.

*Project Leader: Western Australian Government.*
TRANSPORT INFRASTRUCTURE

The Transport Infrastructure Investment Package will deliver a total investment of $15 million to promote the long-term economic prosperity of the region, which is heavily reliant on the quality of its transport infrastructure base. In consultations, stakeholders stressed that effective transport infrastructure is critical to the commercial viability of many industries, not least of all agricultural production, as well as being critical to the social wellbeing and liveability of the region.

The East Kimberley Region is one of the most remote areas of Western Australia with the largest town, Kununurra, located 800 kilometres from Darwin and 1000 kilometres from Broome. With a small, widely dispersed population, effective transport infrastructure is critical to the economic development of the region. High transport costs already impact on the commercial viability of a range of industries. The expansion of the Ord River irrigation area is expected to increase the demands being placed on existing transport infrastructure.

The Commonwealth has previously provided funding for preliminary scoping work on the Kununurra Heavy Vehicle Route, also called the Kununurra Bypass. Planning and design work and land acquisition for the western leg of the bypass will continue through to December 2009. While a Kununurra bypass is beyond the scope of this Package in terms of cost and expected timing of delivery, future funding could be sought through the Nation Building program.

Wyndham Port facility upgrade – $10.0 million
Upgrade of the Wyndham Port to improve the efficiency and capacity of the existing Port through the construction of better storage facilities, improved access and upgrades to maintenance buildings, and repairs to the existing jetty structure. The Port is a critical transport hub for the East Kimberley Region, and a primary point of access for a range of commodities including fuel oil, fertilizer and ammonium nitrate.

Project Leader: Western Australian Government.

Kununurra Airport upgrade – $5.4 million
Refurbishment of the airport terminal to meet security and service requirements associated with growing passenger numbers, and the construction of a separate patient transfer facility on land donated by the Shire Council and operated by St John Ambulance. The Shire Council will contribute $1 million to the initial infrastructure upgrades and will be responsible for operating expenses.

Project Leader: Shire of Wyndham East Kimberley.
East Kimberley Development Package continued

COMMUNITY INFRASTRUCTURE

The Community Infrastructure Investment Package will deliver a total investment of $16 million to help develop and maintain a healthy, active and strong society. Community infrastructure plays a vital role in enabling people to participate in society and address feelings of isolation within the East Kimberley community.

Quality community infrastructure is critical to improving social inclusion, liveability and economic growth. The local Indigenous people of the East Kimberley Region are already disproportionately disadvantaged and have poor levels of health, social and economic wellbeing. By investing in community infrastructure and services, social disadvantage will be addressed, helping to strengthen communities by strengthening family and community networks, and building a 'sense of place' within the community.

The East Kimberley Region also supports a vibrant and dynamic Indigenous arts sector that plays a vital role in the social and cultural life of the community and attracts national and international interest to the region.

Community sporting facilities - $4.2 million
Upgrade of the sporting oval in Kununurra adjacent to the new 42 bed Indigenous hostel, and the upgrade of the Wyndham Swimming Pool by updating the ageing filtration system and pipe work. Given the harsh environment in the north, community facilities such as sporting facilities and the pool are vital to community well being and engagement.

Project Leader: Shire of Wyndham East Kimberley.

Waringarri Art Centre - $1.6 million
Expansion of the existing Waringarri Aboriginal Art Centre in Kununurra. The project will include upgrades to the studio, workshop, office, gallery, storage space and building security. Staff accommodation is also required to ensure appropriate recruitment and retention of staff, as well as facilities to support activity in outlying communities with which Waringarri works, such as Kalumburu.

Project Leader: Waringarri Arts Aboriginal Corporation.

Wyndham Picture Gardens - $0.3 million
Upgrade to the seating and projection system at the historic Wyndham Picture Gardens to allow the outdoor facility to become fully operational again. Save the Children (Australia) has provided 12 months funding to cover the costs of obtaining films as part of their support for youth and children in Wyndham.

Project Leader: Shire of Wyndham East Kimberley.

Wyndham Community Jetty - $5.0 million
Construction of a community jetty adjacent to the existing Wyndham Port facilities at Anton’s Landing to facilitate safe access to deep water for recreational fishing, particularly for local Indigenous people. Consultation with the Wyndham community and the Western Australian Government will be undertaken to determine the most appropriate design to meet community needs, within the available budget.

Project Leader: Shire of Wyndham East Kimberley.

MG Corp-Gelganyem Trust shared facilities - $4.5 million
The design and construction of shared office facilities for up to 30 staff for the Gelganyem Trust and MG Corporation in Kununurra. The facility will be built on land provided at no cost by the MG Corporation and would be shared by the Gelganyem Trust and MG Corporation. Both Indigenous organisations are charitable organisations established to represent the Miriwoong, Gajerrong and Gidja people of the East Kimberley Region.

Project Leader: Western Australian Government, in partnership with MG Corporation and Gelganyem Trust.
Concepts for future development of agricultural land in the East Kimberley

Beyond the immediate development of 8,000 hectares of the Weaber Plains and the potential 6,680 hectares of the Ord West Bank, Packsaddle and Mantinea, there are opportunities to expand the precinct. These include the remainder of the Stage 2 M2 area into the Knox Creek, Keep River and the broader region locally called the Cockatoo Sands (Figure 14). The timeframe for the development of these areas is likely to be in a longer term planning horizon, particularly for the Cockatoo Sands areas where little baseline information is available and native title and heritage matters are yet to be addressed.

Knox Creek area

A future land package of approximately 8,000 hectares is being considered for the remainder of the land on Weaber Plains in conjunction with land in the Knox Creek area.

This area is collectively referred to as the Knox Creek Area. The release of this area is dependent on the assessment of the implications of lead and silver mining tenements, which are located on the south eastern part of Weaber Plains at Sorby Hills. Should a Sorby Hills mine become operational, the land could be rehabilitated and made suitable for agriculture once the ore has been exhausted.

Sufficient water to supply this area is available from the additional 400GL/annum available for diversion from the Ord River between Lake Kununurra to Tarrara Bar.

Northern Territory (Keep River)

There remains potential for the irrigation scheme to extend into the Northern Territory. Through both Ministerial and officer level engagement, the Northern Territory Government remains fully informed of current and future plans for the East Kimberley Region.

Potentially 14,000 hectares of the Keep River Plains could be developed on the Northern Territory side of the border.

Water to supply this area is included in the additional 400GL/annum available for diversion from the Ord River between Lake Kununurra to Tarrara Bar.
The Western Australian Government will work collaboratively with the Northern Territory Government and the Australian Government to ensure a coordinated approach to future developments in northern Australia.

**Cockatoo Sands**

The Cockatoo Sands comprise areas of light sandy type soils that have potential for irrigated agriculture which would complement the more traditional clays, providing different crop options. There are areas of the Cockatoo Sands surrounding the Ord River irrigation area; however, what is available to use for agriculture purposes is unclear because some of the soil characteristics and slope of the landscape may make it unsuitable for agriculture purposes.

The Department of Agriculture and Food has been allocated $154,000 to assess the Cockatoo Sands and a detailed soil analysis report will be available by October 2009. These soil surveys will identify areas suitable for agriculture. This additional land would provide the Ord River irrigation area with a scale large enough for agricultural production to attract sufficient investment to enable an industry to be sustainable. Negotiation on native title and heritage issues will be required and these potential areas are not the subject of current statutory approvals so are unlikely to be available in the medium term.

It is also essential to consider the implications in relation to water availability. Currently there is 865GL/annum of water allocated for the irrigation area in the East Kimberley Region. However, if the full allocation is not used it could potentially be redirected to the Cockatoo Sands areas, subject to other approvals and land release.

The Ord Irrigation Expansion Project will overcome some of the current limitations facing the agricultural sector. Ongoing research for cropping on soil types other than clay will ensure the Ord River irrigation area continues to grow as an irrigated tropical agricultural area adopting world’s best practice in farming systems and developing new crop opportunities.
This significant project will engage a diverse range of stakeholders who are actively engaged in the delivery of project outcomes or are key beneficiaries of the project. These stakeholders and their roles and responsibilities are outlined in the following table. Memoranda of Understanding have been negotiated with several State Government departments and the process of further refining responsibilities and timetables is being facilitated through the Ministerial Council and Steering Committee.

### Appendix 1 – Stakeholders’ roles and responsibilities

<table>
<thead>
<tr>
<th>Government Stakeholders</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Regional Development and Lands (RDL)</td>
<td>RDL is the lead project agency and has carriage of the agricultural infrastructure expansion project. More specifically, the Ord-East Kimberley Development Plan office has responsibility for the overall co-ordination of individual agency and interagency works, including definition of scope, deliverable schedules, funding, reporting and communications with the community. A project team has been established to manage the development, including supporting the Ord-East Kimberley Development Plan Ministerial Council and Steering Committee, implementation of the Aboriginal Development Package and to liaise with the Community Reference Groups. These functions will fall under the responsibilities of the Ord Kununurra office. RDL is also responsible for the management of unallocated Crown land (UCL) throughout the State and provides land tenure expertise that will support the Ord-East Kimberley Development Plan. RDL also has responsibility for the timely release of UCL for agriculture, industrial, commercial and residential uses in accordance with the Ord Final Agreement. RDL manages the UCL on behalf of the State of WA and any development on UCL requires the approval of RDL. In recent years RDL has approved the conversion of UCL to freehold, leasehold and reserve land for residential, industrial, commercial and community uses to support the growth of Kununurra and surrounding areas.</td>
</tr>
<tr>
<td>Department of State Development (DSD)</td>
<td>DSD coordinates Australian Government engagement, including social infrastructure liaison and work with the project team and LandCorp to facilitate the relevant Federal approvals. DSD also works with relevant agencies with respect to implementation issues associated with the infrastructure package.</td>
</tr>
<tr>
<td>LandCorp</td>
<td>LandCorp is determining the design of the subdivision and lot sizes and acquiring the relevant State, local and Federal approvals. It project manages to facilitate the land release and supports a marketing program. LandCorp is also responsible for coordinating the construction of the irrigation, roads and other infrastructure in the Weaber Plains.</td>
</tr>
<tr>
<td>Water Corporation</td>
<td>The Water Corporation currently maintains the existing M1 channel. The Water Corporation is also the licensed provider of water services to the town of Kununurra, and to the Ord Irrigation Co-operative and industry and has responsibility for the management of the Ord River Dam and the Kununurra Diversion Dam.</td>
</tr>
<tr>
<td>Main Roads Western Australia (MRWA)</td>
<td>MRWA is responsible for providing support in the delivery of road works to and within the Weaber Plains subdivision area, including sourcing raw materials.</td>
</tr>
<tr>
<td>Department of Environment and Conservation (DEC)</td>
<td>DEC provides advice on activities on land adjoining existing or proposed nature reserves or conservation zones, including promotion of the reservation of the Packsaddle Swamp and Carr Boyd Ranges for conservation purposes; facilitation of the management of the impact of native animals on horticultural crops; research on the cultivation of tropical tree crops; provision of advice on the growing of tree crops, such as sandalwood and assistance with the assessment of actual and potential environmental weed species. DEC must also approve the intention to clear land areas in excess of one hectare.</td>
</tr>
<tr>
<td>Department of Agriculture and Food Western Australia (DAFWA)</td>
<td>DAF undertakes research projects at the Frank Wise Institute in the areas of horticulture, field crops, intensive beef production and new industries including cotton, sugar and processing tomatoes. Sustainability issues are also addressed and other services are provided to address agricultural protection and quarantine issues.</td>
</tr>
<tr>
<td>Office of Native Title (ONT)</td>
<td>The Office of Native Title is responsible for the negotiation of the Aboriginal Development Package.</td>
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</tbody>
</table>

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**Ord-East Kimberley Development Plan | Page 42**
Appendix 1 – Stakeholders’ roles and responsibilities continued

<table>
<thead>
<tr>
<th>Government Stakeholders</th>
<th>Role</th>
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</thead>
<tbody>
<tr>
<td>Kimberley Development Commission (KDC)</td>
<td>The KDC provides an integral component of a 'whole-of-Government' approach to the requirements of regional development. It assists in the coordination of responsibilities of a wide range of agencies having impact on regional development, and performs a role in identifying needs and ensuring a rationalised and appropriate application of Government resources to the region.</td>
</tr>
<tr>
<td>Department of Water (DoW)</td>
<td>DoW is the State’s water manager. The department has determined the amount of water available in the Ord River and manages its use through licensing. DoW also has three important deliverables within the Ord Irrigation Expansion Project. These include: selecting the water service provider, establishing the water pricing arrangements for the new irrigation services and issuing licensed water allocations to the provider and/or users. DoW will also provide advice and guidance on other aspects of the project, such as land drainage and metering requirements.</td>
</tr>
<tr>
<td>Department of Fisheries</td>
<td>The Department of Fisheries will assign access to aquatic biological resources in accordance with community priorities. Fisheries will revise the existing commercial and recreational fishing management strategy for the Ord River with the goal of the strategy being to maintain the high quality recreational fishing and aquatic ecotourism industry currently found in the Ord River.</td>
</tr>
<tr>
<td>Environmental Protection Authority (EPA)</td>
<td>The EPA will provide Environmental Protection Act advice in relation to Ministerial conditions and commitments for the existing Stage 2 M2 approval. The EPA will review the draft water allocation plan produced by the Department of Water and may assess other land development proposals which may have a significant effect on the environment, including the extensions proposed in the project.</td>
</tr>
<tr>
<td>Department of Education and Training</td>
<td>The Department of Education and Training is responsible for the construction of health facilities and provision of education and training services in the region.</td>
</tr>
<tr>
<td>Western Australian Planning Commission (WAPC)</td>
<td>The WAPC is responsible for granting subdivision, development, strata title, lease and licence approvals. All land re-zoning must be approved by the WAPC. With specific reference to Ord River Irrigation Area (ORIA) Stage 1, Commission approval would be required for any zoning of vacant Crown land or excisions from pastoral lease to facilitate expansion of irrigated agricultural activities.</td>
</tr>
<tr>
<td>Department of Planning</td>
<td>The Department of Planning is preparing a Kununurra-Wyndham Area Development Strategy, which encompasses the north-eastern part of the Shire of Wyndham East Kimberley, and includes ORIA Stage 1 and ORIA Stage 2 M2.</td>
</tr>
<tr>
<td>Shire of Wyndham-East Kimberley (SWEK)</td>
<td>SWEK controls the planning and development of Kununurra and its surroundings. Building and land uses within the project area require development consent from SWEK. Whilst it does not have a management role once land uses are approved, SWEK ensures that ongoing compliance monitoring takes place.</td>
</tr>
<tr>
<td>Office of Northern Australia (ONA)</td>
<td>ONA, with the Western Australian Government, conducted the East Kimberley Development Package Joint Assessment. ONA administers the $195 million Commonwealth investment in the East Kimberley.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industry Stakeholders</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ord River District Co-operative</td>
<td>The Ord River District Co-operative provides supplies, processing, marketing and support services for a diverse range of crops and agricultural activities.</td>
</tr>
<tr>
<td>Pacific Hydro</td>
<td>As the owner and operator of the Ord Hydro Power Station, Pacific Hydro generates the electricity supply for Kununurra and Wyndham and surrounding agricultural areas. Access to a guaranteed level of water is critical to generating a reliable supply of electricity in the East Kimberley Region.</td>
</tr>
<tr>
<td>Ord Irrigation Co-operative</td>
<td>The Ord Irrigation Co-operative operates the existing irrigation system on behalf of the asset owners, the Water Corporation (M1 delivery channel) and the Ord Irrigation Asset Mutual Co-operative (remaining irrigation assets).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community Stakeholders</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>MG Corporation</td>
<td>Custodians of native title funds under the Ord Final Agreement and key negotiating participant in the Aboriginal Development Package and recipient of land grants under the project.</td>
</tr>
<tr>
<td>Community Reference Group</td>
<td>Advises government on the precise needs of the community to support the realisation of the project objectives.</td>
</tr>
<tr>
<td>Weaber Plains Task Group</td>
<td></td>
</tr>
<tr>
<td>Social Infrastructure Task Group</td>
<td></td>
</tr>
<tr>
<td>Ord West Bank, Martinlea, Packsaddle Task Group</td>
<td></td>
</tr>
</tbody>
</table>
These investigations established that 22,000 hectares of potentially irrigable soils could be commanded and that a further 50,000 hectares was available if the area was extended into the Northern Territory.

By 1958, the research station had proven that it was feasible to build a dam to store enough water to irrigate the estimated 72,000 hectares of irrigable soils in Western Australia and the Northern Territory. It had also demonstrated that cotton, rice, safflower, Inseed and sugar cane would grow well under irrigation.

In 1959 the Australian Government committed to the irrigation of the Ord region by constructing the Kununurra Diversion Dam, a reticulation and drainage system and the development of approximately 12,000 hectares of irrigable land. This was the limit of land which could be supplied with water from the diversion dam. Kununurra, a new regional centre, had also been established in the East Kimberley to service the agricultural development and the local Indigenous communities.

With the diversion dam operating at capacity, the Australian Government agreed to support a second stage which included the construction of a dam on the Ord River, spillway, irrigation channels and infrastructure. Work commenced in early 1969 and in late 1971 the dam was complete and Lake Argyle was created. This newest stage was officially opened by Prime Minister William McMahon on 30 June 1972, with additional agricultural land allocated in 1973.

In 1974 the Australian Government deferred funding for any further expansion of the area. By this time, approximately 14,000 hectares of irrigated agricultural land had already been delivered.

In response to growing electricity demand in the region during the early 1990s, construction commenced on a 30 MW power station at the Ord River Dam in 1995. The station became fully operational in 1996 and now supplies renewable electricity to the Argyle Diamond Mine and the towns of Kununurra and Wyndham. The project involved raising the base of the spillway six metres to provide additional storage and water pressure to increase electricity production.

By the mid-1990s, serious consideration was also being given to the expansion of agricultural land near the Ord River. A joint venture consortium comprising Wesfarmers, Marubeni and the Water Corporation was awarded the preferred developer status to investigate the feasibility of a project to expand the land available for agriculture. This feasibility study examined 33,000 hectares of land on the Weaber, Knox Creek and Keep River Plains, as well as additional land adjoining the Ord River, including Ord West Bank, Mantinea and remaining portions of the Packsaddle Plain not previously developed.

In 2001 the Wesfarmers and Marubeni consortium decided not to proceed with the project due to falling sugar prices and uncertainty over environmental, native title, water and heritage issues. However, when the consortium withdrew, the environmental impact assessment (EIA) of their proposal was well advanced. The Minister for State Development accepted caretaker responsibility for the proposal so that the EIA could be committed. In early 2002 the Environmental Protection Authority (EPA) approved the development of the Weaber Plains, Knox Creek and Keep River M2 areas (collectively known as the Stage 2 M2 area), subject to completing plans detailing how possible impacts of the development were to be managed.
In December 2003, after almost 10 years of court cases and negotiation, the Miriuwung and Gajerrong people reached agreement about where native title existed on their traditional country. These native title rights arose from the Miriuwung and Gajerrong people’s significant connection to country.

Further negotiations followed before the Western Australian Government reached an agreement, the Ord Final Agreement (OFA), with the traditional owners, the Miriuwung and Gajerrong people, to compulsorily acquire their native title rights and make way for the expansion of irrigated agriculture (October, 2005). The OFA acknowledged that previous developments since the 1960’s had the effect of extinguishing native title rights and interests of the Miriuwung and Gajerrong people and that the Miriuwung and Gajerrong people had not been compensated for the extinguishment, nor for the other effects of the developments on them. The OFA was a means to address the effects of the past that would allow the Miriuwung and Gajerrong people to secure an economic base and the ability to participate in the local economy and future developments.

The Department of Water completed the Ord River water allocation plan in December 2006. The plan established a secure and reliable water allocation to underpin irrigation expansion in the district.

Water available for irrigation was maximised while incorporating the modern standards required for environmental flows, and the legal provisions of current power supply agreements.

With renewed commitment to developing the East Kimberley Region, in 2008 the Western Australian Government committed to build on the Ord Final Agreement, to fund the expansion of irrigation infrastructure and release 8,000 hectares of Weaber Plains land in 2011. The Australian Government also agreed to partner with the State Government to realise the vision of a major regional centre in the East Kimberley.

Department of Agriculture and Food statistics reveal the productive potential of the region. In the 2007/08 season, the Ord River Irrigation Area (ORIA) produced in excess of $95 million in production with horticultural crops and tropical forestry contributing the largest components. The value and quantity of irrigated farm activity is poised to increase significantly with the release of the new land in 2011.

Competitive advantages

Agriculture in Kununurra has some distinct seasonal advantages. Due to the warm tropical climate, summer crops are produced during the winter months. This presents a distinct market advantage for some horticultural crops. Being in the southern hemisphere, the region is also counter-seasonal for many of the tropical crops (citrus and fruits) grown in the larger production area of the northern hemisphere. The main growing months from May to September are mostly rain free, reducing the risk of rain damage and lowering disease pressures.

The region is relatively free of major pests and diseases encountered in other parts of Australia and the world, in particular Mediterranean and Queensland fruit fly. This status has long been recognised by local producers who have been instrumental in helping the Department of Agriculture and Food develop a regional biosecurity plan to reduce the risk of incursions.

Soil types

The soils of the Stage 2 M2 area are 30% Kununurra clays and 70% Aquitaine clays (see Figure 15, Soil Types of the Weaber Plains). Both soil types are common in the M1 area and are successfully cropped.

The Kununurra clay soils are mostly neutral to mildly alkaline. They are suitable for most crops currently grown in the M1 area. They are not suitable for paddy rice production as their porosity can lead to unacceptable access to the groundwater.

The Aquitaine clays have higher clay content and while they can be very productive, require careful management and irrigation practice. They are liable to set hard and become blocky. Seedbed preparation often involves pre-irrigation to soften the soil structure. Aquitaines in the northern part of the Weaber Plains are known to have high salt content at depth and irrigation must be carefully planned to prevent water seepage and subsequent water table elevation.

Current agricultural practises

The current area of the ORIA is approximately 14,000 hectares of mostly black Kununurra clays under furrow irrigation. There are small areas of lighter soils and also some drip and sprinkler irrigation.
Figure 15: Soil Types of the Weaber Plains
In the past, a number of agricultural crops have been grown, including rice, cotton, and sugar, however for a number of reasons these crops do not dominate the landscape now. Low prices and insecticide resistance, amongst other things, resulted in the demise of broadacre rice and cotton. Sugar cane production established in 1995 ended in 2007 when the returns fell below highly intensive horticulture and sandalwood plantations. The scale of production relative to the capacity of the mill used for sugar cane was inadequate for it to remain viable.

In free-trading global markets, economy of scale is required for agricultural production to remain competitive. It is also apparent that high value crops are required in the ORIA to overcome the high costs of land and freight to market.

**Emerging trends and opportunities**

A new emerging crop is chia (Salvia hispanica) which is attractive to consumers because of the healthy oil profile of its seed. Around 1,500 hectares of chia was planted in 2009. 50% more than in 2008.

Most is exported to the United States at a price to growers of around $2,400/tonne.

The other significant change in land use in the ORIA in recent years is the introduction of forestry, particularly sandalwood. Figure 16 shows the level of land use change from agriculture to forestry since 2002, with projections to 2011/12.

Agriculture in the graph below comprises field crops such as chick peas, hybrid seeds (mostly sorghum) and horticulture crops; red flesh grapefruit, rockmelons, mangoes, honeydew, water melon and pumpkins. Figure 17 shows the break up in areas of the crops since 2002. Note the demise of sugar cane when the mill closed in 2007.

The recent increase in land demand has been driven mainly by the growth in the sandalwood industry. The first commercial harvest is anticipated to be in 2013 from initial plantings in 2000.
Sandalwood products have been traded for thousands of years. Sandalwood oil is used in perfumes, cosmetics and therapeutic goods. The wood is used in incense, furniture and woodcrafts. India has traditionally been the main producer and exporter of sandalwood oil. However due to over exploitation of the resource, the Indian Government has limited exports by introducing an annual quota.

Australia supplies around 40% of the world’s sandalwood from harvested native plants. The main importers are the United States and France with additional demand from Chinese Taipei and India.

The limited information on sandalwood products indicates price is highly reactive to availability. The United States import price for oil was $1,200 per kg in 2008 and is predicted to remain high until 2012 due to limited world supply. The price is projected to fall to around $300 per kg as new supplies reach the world market from the ORIA and other producing regions.

There is growing national demand for fresh fruit and vegetables, due to increased affluence and health consciousness. Horticultural producers in the ORIA are receiving up to 40 per cent price premiums in the Perth market for off-season fresh produce (Figure 18). Premiums tend to decline with increased off-season supply.

The other significant land use in the ORIA is horticulture. Horticultural opportunities have also bolstered the demand for land over the last five years.

There are growing opportunities in the world export markets for fresh fruit and vegetables and the ORIA is well placed to supply some of the more densely populated Asian countries with quality produce.

Value of irrigated farm activity

The value of irrigated farm activity has increased over the last seven years. The annual value of production has fluctuated as a result of planting areas of perennial tree crops (mangoes and red fleshed grapefruit) that may take 3-5 years before the first harvest.

The sugar cane crop was last harvested in 2007 and all the area formerly under cane has now been allocated to other higher value land uses, mainly tropical forestry (Figure 19). The mix of crops that will eventually be grown in the 8,000 hectare expansion will be based on the projected returns for each crop that have shown volatility between years. However, given the right market conditions and emerging new technology, the Department of Agriculture and Food expects cotton, rice, chia, tropical forestry, intensive horticulture and mangoes to be part of the mix. Three

![Figure 18: Premiums for Selected ORIA Horticulture products in Perth Market](image18)

![Figure 19: Trends in Crop Values](image19)
Appendix 2 – Agricultural production in the Ord continued

possible cropping mixes for the additional 8,000 hectares are presented in Table 4. This provides some indication of the total value that the 8,000 hectares will contribute to the economy. Table 4 indicates that there could be significant returns added to the current 14,000 hectares under production. Previous work undertaken by the Department of Agriculture and Food in 2002 indicated the multipliers from horticultural production were 2.22 for output, 2.79 for income, 1.79 for employment and 2.16 for value-adding. These multipliers provide an indication of the potential expansion in other sectors from increases in agricultural production.

Increasing the scale of production in the ORIA will also lead to the development of agribusiness clusters including input suppliers, machinery dealerships, contracting services and the downstream processing of agricultural products. These business clusters will also generate employment in off-farm business during the construction phase leading to establishment.

The release of the Weaber Plains agricultural lots will provide additional land to meet demand. The types of crops grown will depend on the market signals at the time.

Past & current agriculture research

Extensive research underpins the ORIA’s current cropping industries. With the advent of the first genetically modified (GM) varieties of cotton in 1996 came a renewed interest in this crop, and a period of intense research led to the development of guidelines for the production and management of GM cotton. Cotton has been shown to be a viable crop for the ORIA, producing yields consistent with Australian averages, themselves the highest in the world. Varieties have been identified which deliver good fibre quality, and cotton is now a genuine option for the ORIA. Like cotton, the fundamental settings for many crops have significantly changed since research began on the ORIA. Rice, which was grown between 1973 and 1983 using a paddy system, may be a crop with a future in the ORIA, but based on completely new varieties and grown aerobically rather than in paddies. Although much of the earlier nutritional and agronomic findings remain valid, changing technology and environmental conditions (including climate change) may require reassessment of previous trials.

The Department of Agriculture and Food has produced a comprehensive guide to the soils of the ORIA. Ord SOILpak is a valuable resource and covers the diagnosis of soil conditions and practical soil management.

There is wide support for the concept of a Centre of Excellence in tropical agricultural research. The facilities available at the Frank Wise Institute in Kununurra include modern office accommodation with high speed data systems, excellent conferencing facilities and 400 hectares of developed and irrigated black soil. The Department of Agriculture and Food also owns a 140 hectare Cockatoo Sands block that will be developed to support agricultural research in the near future. The research station operates as a self-contained farming operation and can provide a high level of support for field experiments.

Table 4: Possible cropping mixes and anticipated returns (based on 2008 figures) for the 8,000 hectares of new land.

<table>
<thead>
<tr>
<th>Crop</th>
<th>Crop Revenue ($/ha)</th>
<th>Mix 1 (ha)</th>
<th>Mix 2 (ha)</th>
<th>Mix 3 (ha)</th>
<th>Total Revenue from Mix ($ MILLION)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton</td>
<td>5,000</td>
<td>0</td>
<td>6000</td>
<td>6500</td>
<td>54.7</td>
</tr>
<tr>
<td>Rice</td>
<td>4,500</td>
<td>2000</td>
<td>0</td>
<td>0</td>
<td>73.8</td>
</tr>
<tr>
<td>Chia</td>
<td>4,000</td>
<td>2000</td>
<td>0</td>
<td>1000</td>
<td>51.5</td>
</tr>
<tr>
<td>Forestry</td>
<td>13,842</td>
<td>2000</td>
<td>1000</td>
<td>0</td>
<td>51.5</td>
</tr>
<tr>
<td>Mangoes</td>
<td>30,000</td>
<td>0</td>
<td>1000</td>
<td>500</td>
<td>51.5</td>
</tr>
<tr>
<td>Horticulture</td>
<td>10,000</td>
<td>2000</td>
<td>0</td>
<td>0</td>
<td>51.5</td>
</tr>
<tr>
<td><strong>TOTAL REVENUE FROM MIX</strong> ($ MILLION)</td>
<td><strong>54.7</strong></td>
<td><strong>73.8</strong></td>
<td><strong>51.5</strong></td>
<td><strong>51.5</strong></td>
<td></td>
</tr>
</tbody>
</table>

1For example, if there is an increase in demand for horticulture products then there is an increase in 179 jobs in horticulture. One hundred will be in growing but 79 jobs will be outside the horticulture industry. N. Islam (DAFWA) & P. Johnson (Prime Research WA)
Multimedia presentation
Featuring video of the Ord-East Kimberley Development Plan