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Kimberley Planning and Infrastructure Framework Accommodating Aspirations of Different Land Users and Resolving Conflicting Demands for Land

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Introduction

The recent review of Western Australian's State Planning Strategy sought to refocus, rebuild and reactivate the State's regional planning capabilities. The strategy is based on six fundamental planning principles to qualify and guide the government's planning policies, decisions and priorities (WAPC, 2012).

In support of this the Western Australia Planning Commission has, over the past 3 years, established Regional Planning Committees across Western Australia. These committees have a diverse membership including representation from State and local government, industry, Aboriginal groups and the community. The first task of these committees was the preparation of Planning and Infrastructure Frameworks for each of WA's regions. These framework documents are a response to concerns expressed by regional communities, industry and government (at all levels) about the need for a stronger decision-making context across the regions, particularly the need for greater coordination of economic activity, infrastructure provision and land use.

The frameworks investigate ways to encourage and facilitate population growth and economic development across WA regions over the next 25 years by capitalising on regional comparative advantages with a focus on identifying and facilitating opportunities for economic diversification. It is recognised that this growth will need to be managed to reduce impacts on the region's natural resources and environment while also respecting the connection to country by Traditional Owners and the rights and interests afforded under the *Native Title Act 1993*.

It is intended that the actions identified in each of the frameworks will be reflected in the preparation of local planning strategies and local planning schemes across the state. These documents will also inform government on infrastructure priorities, which will provide direction to the private sector to ensure it has confidence to invest in the region.

A vision for the Kimberley

The Kimberley Planning and Infrastructure Framework (KPIF) recognises the need to capitalise on the region's comparative advantages and promote diversification of the economy. These strategies are essential for encouraging and facilitating population and economic growth across the region to 2025. This will, however, need to be managed through clear strategies that promote retention of people living in the region. Future growth needs to be managed to reduce impacts on the region's natural environment while remaining respectful of Aboriginal culture and Native Title rights, historic legacies and providing opportunities for the Kimberley people.

8/01/2015

This approach is reflected in the guiding principles that have been identified for the Kimberley:

- developing modern, well-designed, progressive, and vibrant urban places that provide improved levels of amenity and wellbeing;
- fostering a prosperous and diverse economy, based on the region's comparative advantages, which provides employment opportunities;
- providing a high standard of infrastructure, including interconnected transport, utility infrastructure and community services (health and education);
- safeguarding and enhancing significant natural landscape assets and cultural heritage values;
- encouraging sustainable well-designed development that is responsive to the region's natural environment, including its climate; and
- developing governance structures to ensure the efficient and timely implementation of the KPIF.

Key stakeholders

The Kimberley Regional Planning Committee (KRPC) was established in 2009 to advise the Western Australian Planning Commission (WAPC) on land use planning issues in the region and has carriage of the KPIF. The KRPC has a diverse membership including representation from State and local government, industry including the pastoral sector, Aboriginal groups and the community.

The region has a diverse range of stakeholders including different ethnic groups who migrated to the Kimberley for opportunities in pearling, fishing and agriculture, 2nd and 3rd generation pastoralists, and a large number of different Aboriginal Traditional Owner groups. Capturing the aspirations of such a diverse group provided challenges in the preparation of the Framework.

A number of workshops were held with key stakeholders including State agencies, infrastructure providers and local government. A Traditional Owners Reference Group was established to assist with the preparation of the KPIF and includes representatives from Prescribed Bodies Corporate (PBC) and the Kimberley Land Council (KLC).

Further workshops will be undertaken in each Shire across the Kimberley with community and industry groups.

Native Title and engagement protocols

Within the Kimberley Aboriginal people account for around 39% of the total population and at least 50% of the Kimberley has determined Native Title, thus providing an additional challenge to ensure that Native Title holders are recognised under Native Title legislation as legal custodians and, in some instances, landowners (holders of land tenure). As landowners, Aboriginal persons are afforded the same rights and recognition within the land use planning process, as other landowners, particularly with regard to consultation. Prescribed Bodies Corporate (those groups with determined Native Title) require collaborative engagement protocols that recognise the importance of engaging with those who are authorised to speak about a particular part of Country.

It is anticipated that the number of Native Title determinations will increase and there is likely to be a significant emerging interest from Traditional Owners in undertaking strategic land use planning, especially in areas where there are demands for urban expansion, infrastructure provision and economic development.

The KPIF acknowledges the complexity of this issue and identifies the need to undertake detailed analyses of the interaction between Native Title legislation and the *Planning and Development Act 2005*.

Cultural heritage

Cultural heritage, natural heritage and built heritage are significant across the Kimberley. For land use planning this provides both constraints to development, but also opportunities for economic benefit from activities including eco-tourism. At the present time, there are various processes, defined by a suite of legislation and policies that aim to protect cultural and natural heritage at Commonwealth and State Government level. During the preparation of the KPIF it became apparent that there are many places of cultural significance that are firstly, not identified and secondly, not protected. To address this, 'Cultural mapping' is seen as a technique that can be used to record culturally important sites and activities. The KPIF recognises the potential value in this type of work and is exploring the concept in more detail with other government agencies and organisations to ascertain the potential benefits for future land use planning.

Natural environment

The Kimberley region is renowned for its environmental values, many of which have been identified for their regional, state, national and international significance. As with heritage, there are many areas of the Kimberley that are protected from development under various legislation, however these same environmental values are likely to play a significance role in growing the economy through eco-tourism. In addition, reforms being considered for some pastoral leases will facilitate improved rangeland management through diversification into conservation leases and / or eco-tourism. The KPIF recognises and incorporates, where relevant, the recommendations and initiatives of the Kimberley Science and Conservation Strategy (DEC, 2011), which is geared towards growth in the eco-tourism industry.

The KPIF recognises that land use and development impact on the environment and identifies opportunities for avoiding or minimising these impacts.

Settlement

The region's Estimated Resident Population has grown from 15,000 in 1976 to around 35,000 in 2011. A significant proportion of this growth is attributed to expansion of the service, mining, agriculture and pastoral sectors, and has predominantly occurred in Broome and Kununurra.

The KRPC has set indicative, aspirational targets for population growth to 2035, shown below.

Place	Average annual growth	Estimated population (2035)
Broome	5%	44,395
Kununurra	5%	16,180
Derby	4%	7,582
Towns	Natural growth (2.2%)	Various
Settlements	Natural growth (2.2%)	Various
Minor settlements	Natural growth (2.2%)	Various

Source: KRPC (2012)

It is expected that the impetus for these aspirational growth scenarios will be driven by progressive expansion and diversification of the region's economy over the next 25 years. This will need to be accompanied by detailed strategies to retain population in the region, including:

- development of employment opportunities;
- provision of high quality education and health services;
- implementation of 'enabling' infrastructure to allow people to capitalise on the region's comparative advantages; and
- creation of quality urban environments that can support increased population.

To provide direction for future development a settlement hierarchy has been determined based on:

- current population and expectations about future growth;
- current and future economic opportunities; and
- current and future capacity requirements of infrastructure.

In a practical sense, the hierarchy will provide guidance to State and local government agencies and the private sector in regard to future commitments, particularly for land use and infrastructure planning.

One important feature of the hierarchy is the integration of larger Aboriginal settlements into the 'Towns' category. Given that a considerable proportion of the region's population is indigenous and if current trends continue, there is a high likelihood that there will be considerable growth in these towns, normalisation of servicing and infrastructure provision will become more critical across all levels of Government.

Kimberley settlement hierarchy.

Regional City	Broome	<ul style="list-style-type: none"> • Expected to receive ‘city’ status. • Regional service centre to the west Kimberley. • Regionally significant infrastructure & services – Port, education, regional health campus, regional prison, regional offices for state agencies.
Regional Centre	Kununurra	<ul style="list-style-type: none"> • Regionally significant infrastructure & services – Port, education, regional health campus, regional prison, regional admin offices for state agencies. • Regional service centre to the east Kimberley.
Sub-Regional Centre	Derby	<ul style="list-style-type: none"> • Accommodates district and local commercial activities. • Accommodates district and local infrastructure & services – district prison, local hospital. • District service centre.
Town	Fitzroy Crossing, Halls Creek, Wyndham, Bidadanga, Balgo, Kalumburu, Looma, Ardyaloon/Bardi, Warmun, Beagle Bay, Yungngora, Djarindjin-Lombadina	<ul style="list-style-type: none"> • Local reticulated water, waste water and electricity services. • Community infrastructure to meet direct local needs - primary school, aged care facilities, health services for the local community, local administrative centres. • Local commercial and industrial activities. • Hub towns for surrounding aboriginal settlements & minor settlements.
Settlement	examples: Camballin, Wangkatjunka, Djugerai, Ngumpan, Kadjina, Yakanarra, Koorabye, Ngalingkadji, Moongardi, Jimbalakudunj, Pandanus Park, Immintji, Kupangarri,	<p>Smaller Aboriginal settlements around 50 – 300 persons.</p> <p>Services & infrastructure provision varies.</p>
Minor Settlement	examples: Willare Bridge, Sandfire, Truscott, Mornington, Bidan, La Djardarr Bay, Wuggubun, Kandiwal, Wijilawarrim, Wollengerberleng, Ngunulum, Ningbing, Mimbi, Mingalkala, Mowla Bluff	<p>Smaller Aboriginal communities (below 50 persons), outstations and roadhouses.</p> <p>Services & infrastructure limited.</p>

Economic development

At present mining, retail, tourism and construction sectors make the most significant contributions to the region's economy. The Department of Regional Development and Lands and Kimberley Development Commission estimate that the Kimberley's Gross Regional Product was \$2.2 billion in 2009/10 (DRDL/KDC, 2011).

The Kimberley's economy relies on a limited number of (primary) economic sectors, which may not be able to sustain sufficient levels of activity to substantiate new job creation required to support population and economic growth. Rather, consideration must be given to broadening and diversifying the existing economic base.

The region will continue to be a net exporter of goods and services so any diversification strategy needs to focus on making the region less susceptible to the uncertainties of global commodity price fluctuations, particularly in the resources sector, and shifts in overseas demand for produce from the pastoral and agricultural sectors. Economic diversification is most likely to be achieved by identifying and capitalising on the region's competitive advantages, which are:

- significant mineral reserves (e.g. iron ore, nickel, diamonds);
- major off-shore oil and gas reserves;
- availability of natural resources to facilitate economic opportunities (e.g. water);
- significant amounts of land that can accommodate and facilitate new production opportunities;
- close proximity to markets in Asia;
- ample opportunities to utilise renewable energy potential (e.g. solar, wind, wave, tidal and thermal energy);
- raw natural beauty of the region's ranges and coastline;
- Aboriginal culture and heritage; and
- mild dry winter climate.

Potential economic diversification opportunities include:

- promoting a wider mix of activities on the region's pastoral leases to create economic opportunities for pastoralists and employment opportunities for the population;
- providing opportunities in the tourism sector that focus on offering a wide range of experiences that tap into the region's unique characteristics;
- identification and establishment of new opportunities, primarily aligned with intensification of current activities, in the agricultural sector; and
- promotion and establishment of new industry sectors, especially the exploration industry and defence, to locate in the Kimberley.

Utility infrastructure

At present, the region's urban places are serviced by utility service networks consisting of water, power, waste water, telecommunications and waste management. The configuration and level of services is essentially population and industry driven. Large-scale industry and commercial activities in the agriculture, horticulture and resource sectors consume significant amounts of water and electricity. Emerging economic opportunities will impact on the capacity of utility services across the region. State government service providers, such as

8/01/2015

Water Corporation and Horizon Power, along with the region's local governments, continually undertake detailed investigations to ensure utility infrastructure networks have the capacity to meet current demand and are able to expand to address future requirements.

Community infrastructure

To retain current population levels and encourage future migration into the Kimberley, there is an ongoing need to provide quality education, health, recreation and other community infrastructure to a standard that is comparable to larger regional centres and city centres. At present time, however there is a high turnover of medical and education staff resulting in lower levels of service. Compounding this issue is the high rates of chronic disease and general lower levels of general health, and lower levels of education, amongst the community, particularly the aboriginal community.

Considerable work is routinely undertaken by servicing agencies to determine future community infrastructure requirements. Service agencies, including the Health Department of Western Australia, Education Department of Western Australia, the Fire and Emergency Services Authority of Western Australia and WA Police Service, implement identified works as part of their respective capital works programs to ensure the region's community infrastructure priorities are addressed. The region's local governments also play a significant role in providing a range of community services to meet the needs of the population. The private sector also plays a role in planning for and providing community services infrastructure.

Transport infrastructure

Road traffic volumes are highly responsive to economic activity cycles. Consequently, further development of the tourism sector, commencement of resource projects and growth in the agricultural/horticulture industry all have the potential to significantly increase traffic on the region's road networks. Growth of the region's urban places will also place significant pressure on local transport networks and this will require detailed network planning.

The continued reliability of the Great Northern and Victoria Highways, as the region's main sealed freight routes, will be paramount. These roads will continue to service the needs of the region's communities and industries by providing a sealed link between the major population centres of the Kimberley, remote aboriginal communities, the Ord East Kimberley Development and gateway to the Northern Territory. Sealing of Tanami Road is a high priority to provide an alternative east – west link to the Northern Territory

Providing road networks to support the anticipated growth in the tourism industry will also be of critical importance. It is anticipated that access to many of the region's inland tourism attractions will be via road. Facilitating access for the tourism industry via road will require additional investment over and above the upgrade requirements for major roads. Retention and preservation of some of the tourism routes as four wheel drive only, such as the Gibb River Road, are an important part of the attraction of the Kimberley.

Implementation

The Kimberley Planning and Infrastructure Framework provides the framework for a stronger decision-making context across the region, particularly greater coordination of economic activity, infrastructure provision and land use. The frameworks investigate ways to encourage

and facilitate population growth and economic development across WA regions over the next 25 years by capitalising on regional comparative advantages with a focus on identifying and facilitating opportunities for economic diversification. The actions identified in the Framework will be reflected in local planning strategies and local planning schemes across and will also inform government on infrastructure priorities.

Effective delivery of infrastructure to meet future demand requires strong coordination across Government. Given the costs and long lead times required to plan and implement infrastructure projects it is imperative that infrastructure planning for the region progresses on the basis of agreed priorities. Infrastructure priorities have been identified for regions across Western Australia that will provide advice to Government on capacity issues, assigning responsibilities and setting clear delivery time frames. A state-wide methodology and framework for the identification of 'flagship' infrastructure across Western Australia, is currently being developed by the Department of Planning and overseen by the Infrastructure Coordinating Committee (ICC) of the Western Australian Planning Commission. Other work currently being undertaken, such as Regional Development Australia's Region Plan and the Kimberley Development Commission's Infrastructure Blueprint and Investment Plan, will feed into this process.

Bibliography

Australian Bureau of Statistics, 2012, *Census of Population and Housing: Basic Community Profile*, Australian Bureau of Statistics, Canberra, ACT

Australian Bureau of Statistics, 2011, '*Census of Population and Households 2011*', online databases - www.abs.wa.gov.au

Australian Bureau of Statistics, 2006, *Census of Population and Housing: Basic Community Profile*, Australian Bureau of Statistics, Canberra, ACT

Australian Bureau of Statistics, 2001, *Census of Population and Housing: Basic Community Profile*, Australian Bureau of Statistics, Canberra, ACT

Chamber of Minerals and Energy Western Australia, 2011, *State Outlook 2011*, CMEWA, Perth.

Department for Sustainability, Environment, Water, Populations and Communities, 2012, *Draft National Wildlife Corridors Plan*, prepared by the National Wildlife Corridors Plan Advisory Group, ACT.

Department of Agriculture and Food, 2011, *Land systems of the Kimberley region, Western Australia – Technical Paper 98* (www.dafwa.wa.gov.au), DAFWA, Perth.

Department of Education, Employment and Workplace Relations, 2012, *Small Area Labour Markets*, unpublished data, Department of Education, Employment and Workplace Relations. Perth, WA.

Department of Environment and Conservation, 2011, *Kimberley Science and Conservation Strategy*, DEC, Perth.

Essential Environmental, 2011, *Natural Resource Management Report for the Protection of Priority Natural Resources in the Kimberley Strategic Regional Land Use Plans – Report* prepared for the Department of Planning, WA.

Gregory, J., and Gothard, J., 2009, *Historical Encyclopaedia of Western Australia*, University of Western Australia Press, Perth.

Health Department of Western Australia, 2012, Presentation to ICC/KRPC Joint Workshop on Kimberley Region Infrastructure Priorities, April 2012.

Kimberley Development Commission/Department of Regional Development and Lands, 2011, *Kimberley: A region in Profile*, Perth, WA.

Kimberley Draft Regional Water Plan, 2010, '*Strategic direction for water management in the Kimberley*' unpublished data, Perth, WA.

Water Corporation, 2012 'water and waste water infrastructure in the Kimberley', unpublished data, Water Corporation, 2012.

Western Australian Planning Commission, 2009, *Fitzroy Futures Town Plan*, WAPC, Perth.

Western Australian Planning Commission, 2008, *Halls Creek – regional hot spots land supply update*, WAPC, Perth.

Western Australian Planning Commission, 2008, Fitzroy Crossing – regional hot spots land supply update, WAPC, Perth.

Western Australian Planning Commission, 2008, Derby – regional hot spots land supply update, WAPC, Perth.

Western Australian Planning Commission, 2008, Kununurra – regional hot spots land supply update, WAPC, Perth.

Western Australian Planning Commission, 2008, Broome – regional hot spots land supply update, WAPC, Perth.

Western Australian Planning Commission, 2007, *State Planning Policy 3.5 Historic Heritage Conservation*, Government of Western Australia.

Western Australian Planning Commission, 2006, *State Planning Policy 1 – State Planning Framework Policy*, Government of Western Australia.