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Nature Reserves Preservation Group, Inc.

26 November, 2010

TO: Mr Gary Pratley,
Chair, Western Australian Planning Commission
Albert Facie House
469 Wellington Street,
Perth, Western Australia 6000

CC:

SUBJECT: **NRPG SUBMISSION - COMMENTS ON "DIRECTIONS 2031 Draft Spacial Framework for Perth and Peel" (June 2009 & Aug 2010)**

Dear Mr Pratley,

The Nature Reserves Preservation Group (NRPG) of Kalamunda appreciates the opportunity to make comment on Directions 2031. The NRPG is a community group formed in 1989 for the purpose of preserving and restoring natural areas of vegetation in the Shire of Kalamunda for conservation purposes.

NRPG is pleased to see that this is a plan which recognises the importance of long-term sustainability to maintain the quality of our society, environment and economy, i.e. "triple bottom line" accounting.

NRPG's comments are as follows:

COMMENTS ON THE "INNER CITY"

Theme 4:
Recognise that silent electric-assist bicycles and other human-powered vehicles are as unobtrusive as pedal-only cycles and allowing these to be used on bike paths represents a major potential for encouraging more use of bicycles, with the results of improved health, reduced traffic congestion, etc. It addresses issues such as fatigue and overheating, even in areas with some hills, and enclosed human-electric vehicles (available in Europe, i.e. Aeromobile, Velomobile,etc.) also addresses the problem of cycling in inclement cold and rainy weather.

The implementation of clean, quiet public transport in the form of light electric rail and buses servicing 'nodes' and stops throughout the eastern metro area, in N-S, E-W directions will further encourage the takeup of this efficient and effective mass transit option. (Ref: Community Public Transport Forum outcome of EMRC, Member Councils and Curtin University of Oct-Nov 2010)

Themes 5 & 6:
We need to also include "sustainability", referring to:

- recycling, "Zero Waste to Landfill" (such as EMRC's project goals),
- transition rapidly to renewable energy for electricity and transport, both private and public. (Perth and surrounds have massive wave, solar, geothermal and some biomass potential),
- Implement water-sensitive urban planning and design to reduce impervious surfaces and capture excessive water runoff to recharge local aquifers rather than discharge it rapidly to the ocean as with our current 'drainage' philosophy.
- Consume locally-grown food as much as possible
- Fix urban growth boundaries
- Climate change and its consequences must be not only mitigated by reducing GHG emissions, but also planned for in our regard to water/rainfall.

Perth's eastern metro areas have wildlife corridor and biodiversity protection strategies (in line with the Perth Biodiversity Project) which need to be interconnected to provide not only a more functional ecosystem, but also to provide greenbelts for passive recreation such as bush/riverside walking/cycling, thus providing double benefit. This could be achieved through a "Foothills and River Regional Park" (i.e. the "King's Park" of the eastern metro). The proposal for this park was acknowledged by the Gallop government as desirable and worthwhile, and Directions2031 is an ideal vehicle for its creation. (Ref: Attachment 1).

The cost of infrastructure can be reduced by making residential and industrial developments more self-sustaining, by collecting their own water, generating their own power, and potentially using geothermal resources directly under the metro and other areas which are over the Perth Basin geothermal hot sedimentary aquifer (refer to the WA Geothermal Centre of Excellence). Centralised geothermal wells can provide central heating and cooling to clustered communities, businesses and industry and significantly reduce demand for electricity. Presently, several Perth pools such as Challenger Stadium are heated by geothermal energy from about 80m subsurface, and UWA is installing airconditioning using geothermal heat directly below the campus. Building regulations should be changed to require solar-passive design, including the use of eaves, shading, and natural air ventilation, reducing the need for buildings to be air-conditioned. Existing water rates should be reviewed to give incentives to reduce waste.

Further lifecycle cost savings can be achieved in energy savings and ongoing maintenance by the use of new LED street lighting (i.e. General Electric Evolve™ LED Cobrahead www.gelighting.com/na/) which not only has very high efficiencies and lasts 50,000 hrs, but can be turned down or off when not needed, ie. By the use of PIR motion sensing. This can also help alleviate the problem of light pollution.

Scenarios for Growth:
NRPG strongly supports the green network of parks, conservation and biodiversity areas. These should be planned to coincide with natural water and land features which provide wildlife corridors and if necessary create vital links which may already be broken. To improve the benefits, these should be made to coincide with passive recreation and transport needs such as cycling and walking. This concept can also incorporate the proposal of a "Foothills and Rivers Regional Park". If links need to be created, they may have to be purchased.

One potentially serious issue and example of the need for re-routing of existing land use is the northern area of Perth Airport which is at risk of destruction from dieback due to it's proximity to the transport of clay from sites all over the eastern metro to the BGC brickworks on the north side of Kalamunda road. This high-priority Banksia woodland is particularly susceptible to dieback, and yet is exposed to a known threat.

Planning of Activity Centres:
Clustered developments with 2-3 storeys will allow for more infill while preserving common greenspace/greenbelts to make communities liveable. It is important to ensure space for trees and other vegetation to help minimise the 'heat island' effect, which in turn drives up cooling energy and costs in summer. Furthermore, it improves the amenity of the area. In business and community areas, the incorporation of residential units above the business units not only keeps these areas more socially vibrant but helps to reduce vandalism.

The idea of corner shops and local newsagents are too small in 'critical mass' to survive - we have had these in the past but they are nearly all disappeared. The strip shopping idea needs to be incorporated to include 6-8 businesses to feed off each other's customers. Adequate funding will be required to secure good business plans to build successful 'shopping/activity centres"

COMMENTS ON THE "OUTER METRO":

5 Planning for a population of 3.5 Million

The stresses of increasing the metro area's population to 3.5 million needs to be evaluated for its practicality due to the resulting burden on our natural resources, infrastructure and ecology, which even at today's population, is presenting serious problems. Government has a controlling role to play in this issue.

Perth has practical limitations on water availability based on the projected trend for rainfall to decrease with drying local climate, as we have seen in the past 25 years, and the fact that drawing from our fossil sources of water such as the Yarragadee may further lower our water table, resulting in drying of waterways and wetlands, with attendant soil acidification. There will be significant financial and environmental costs associated with this kind of growth. To take water from the north, desalination, or other sources is not only expensive, but unless powered by renewable energy, will be highly greenhouse gas intensive, further exacerbating problems.

How will health, education, transport and other socially-necessary infrastructure be financed to increase at this rate? If it is proposed that privatisation will take care of it then we must take heed of the serious issues facing the US in provision of affordable heath care. Private companies are in business to make a profit, while the role of government is to take care of all its citizens. From the US experience, these are irreconcilable differences.

If the government is to take care of this infrastructure demand, how will this be achieved?

With the cause of this growth largely due to mining resource demand, how is this industry contributing to the cost, as the benefits it is reaping does not flow on to all of society. It is not fair to burden the "slower-speed" economy with the demand and cost escalation caused by the growth by and benefit to the "faster-speed" economy. If the demand driven by mining is excessive and the benefits are not being fully realised by all West Australians, then it is prudent to take a lesson from Norway, which in the late 1990's determined that the excessively high rate of development of its oil and gas fields was benefiting its own population less than other countries. This was because most of the employment and contracts went to non-Norwegians. To address this the Norwegian government paced the approval rate of these projects to extend the duration of their contribution while maximising the ongoing benefit to their citizens of their non-renewable resources. This is very similar to what is occurring in WA at this time. We need to consider that a slower growth rate will have more benefit to more West Australians than an excessive rate. This means that the wealthy will not be quite as potentially wealthy but we will have a more equitable society. The arguments for slowing and/or limiting population to preserve our lifestyle and economy are well described in Attachment 2.

6 Managing Urban Expansion

It is encouraging to see the "Opportunities and Constraints Index" recognising the importance of both environmental and social considerations, in addition to the economics. This 'triple-bottom-line" approach is important to ensure a good outcome, however in instances where irreplaceable environmental qualities would be compromised or extinguished, environmental priorities should override for the long-term benefit future generations.

It is mentioned that the Index has been reached from input by infrastructure agencies and public utilities, but does not appear to have had community input. Is there a plan to include community input such as through workshops or similar? The information contributed by the

community members via workshops should be developed, and with community support is most likely to lead to a successful outcome.

While planning urban growth area, it needs to make provision for the overlay and implementation of greenways/natural areas and wildlife/passive recreation and cycleway corridors. (The Perth Biodiversity Project, Kalamunda Biodiversity Strategy and the Kalamunda Wildlife Corridor Strategy encourage the retention of wildlife corridors). In some cases important linking has already been lost due to development, however, it may be possible to reinstate those links if some areas are able to be purchased back or land-swapped, then re-created their former state.

Perth and the southwest of WA is one of the biodiversity 'hot spots' internationally, yet so much of Perth's natural vegetation and natural areas have been cleared, wetlands drained and filled, soil diseases (Dieback) are a 'biological bulldozer' for which there is no cure, and weeds have invaded much of Perth's urban bushland. The resulting loss of plants and animals, and therefore the risk to the survival of Perth's unique biodiversity is very high.

The loss of area of ecological communities reaches critical levels of survival at about 30% remnant, (ref: Perth Biodiversity Project). Below this level the threat of extinction becomes great and only concerted efforts will preserve them. There are several areas at or below this level. For example, only 10% of Perth's "Forrestfield Complex" vegetation remains, due to clearing since settlement.

The Minister for Planning has recently legislated (Gazetted in the Metropolitan Regional Scheme) protection of 22,000 Ha of "Bush Forever" sites around the metro area. This is a significant step forward, however the vast majority of regionally significant bushland, wetland and wetland buffer sites, as identified in Perth Bushplan (WA Government 1998) has not been protected. A once-off allocation of sufficient funds to protect this should have occurred at the initial stages of Bush Forever (WA Government 2000), however in its absence a secondary allocation of funds is required to protect the balance of the regionally significant bushland, wetland and wetland buffer per Perth Bushplan.

In order to preserve our highly unique ecological communities (i.e. no other representation on Earth) we need to stop further clearing of all areas at risk and leave adequate margin/buffers for indefinite survival of other remaining ecological communities, particularly in light of the threats of lower rainfall and water table as a result of climate shifts which have already reduced our rainfall approximately 30%. These areas must be permanently protected from development, and provided with sufficient buffers and interlinking corridors of natural vegetation for protection from encroaching threats such as Dieback, weeds and human activites. To achieve this, land-swaps or buybacks should be implemented. Other details and strategies are documented in the "Perth Biodiversity Project" and Kalamunda's "Local Biodiversity Strategy".

A visionary proposal to help preserve ecological links through the eastern metro area, introduced (in 2004) is that of a "Foothills Regional Park", which can be thought of as the "Kings Park" of that area. This proposal was made by a community member well-versed and experienced as a public servant, in environmental issues, Mr. Alan Hill, and the Urban Bushland Council of Perth. It received support in principle from the State Government in 2005, and the proposal is to connect Bush Forever sites throughout the eastern metro area, including waterways and the Swan River park. (Ref: Attachment 1). The connectivity and ambience of this plan could serve also as passive recreation and eco-tourism attraction for biodiversity of the region, and with cycle/walkways providing a transport corridor compatible with the environmental qualities.

Further opportunity to re-connect broken ecological links has become evident following discussion with Western Power representatives at a Forrestfield Community Forum (24 Nov 2010). Western Power is open to the use of land under transmission lines to be used as greenbelts/wildlife corridors provided the vegetation height is low and access remains for maintenance.

After excluding the above land preservation areas, when rezoning land, consideration should be made to maintain some mixed-use zoning to allow for choice of various lifestyles.

However, there should also be allowance for buffering between incompatible land uses such as industrial and residential. In ‘hubs’ or ‘nodes’ where ‘urban villages’ are desirable, mixed use of residential above commercial, and even agricultural can be desireable as it reduces vandalism and retains vibrancy out of business hours.

7 Urban Expansion Plan

It is desireable to minimise the growth of the physical ‘footprint’ of the metro area by infill, and to achieve this while maintaining sufficient areas for necessary vegetation and the multiple benefits it offers, there are various methods available:

- “Clustered” housing places several houses in a cluster, sharing common walls, or adjacent walls which are able to preserve noise and thermal insulation. This eliminates the recent trend of a 1-1.5m wasted space between each dwelling and the boundary, and instead allows it to become a larger useable space around the outside of the cluster which is suited to growing trees and other vegetation, which reduces the Summer ‘heat island’ problem which is causing the increase in energy demand for cooling.
- Build upward instead of outward, by second storeys, but to reduce costs and “embodied energy”, the use and acceptance of different building methods such as moving away from brick but still retaining thermal and noise insulation as well as adequate structural strength, as achieved in other countries. The use of double-brick construction had advantages in early days, but new materials and solar-passive design principles do not require this.

Perth’s geographical character has the potential to allow unbridled expansion by “creep” of the urban boundary, to the point where it could become another ‘Los Angeles’. Only an urban growth boundary can stop this creep and resulting disastrous result. During the “Dialogue with the City” development of a Network City plan for Perth/Peel, 70% of the 1,300 workshop attendees expressed a desire for an urban growth boundary to be established. With this level of support, an urban growth boundary must be part of the plan.

Any urban development should retain or re-create greenbelts crossing the metro area for the reasons stated previously. Some of the MRS and PRS undeveloped urban and urban-deferred areas (yellow coloured) indicated in Fig 17 do cut through potential East-West greenbelts/wildlife corridors, such as north of Baldivis and along the northwest coast.

Development in the northeast would seem to be unsuitable due to its geographical separation from the metro area, causing much increase in transport demand as well as significantly growing the urban area eastward into state parks/forests.

Attachment 1: Foothills and River Regional Park proposal
Attachment 2: Submission to “Population Policy Inquiry Local Government Association of Queensland”, by Jane O’Sullivan

Sincerely,

Steve Gates
President/Chair, NRPG