

Go West Young Man

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Abstract

'Go west young man' is the proposed strategy of the State Government to manage growth in South East Queensland, but will it save our coast? Will it work? Can the region support 4 million people by 2030 as well as our lifestyle and the region's many environmental values? These are questions major community groups with their broad charters and interaction with multiple disciplines are well placed to answer. This paper will examine the draft *SEQ Regional Plan* and the results of the State Government's *State of the SEQ Region* report, the first assessment of the region's progress towards sustainability. Planning matters, economic, environmental and social indicators and judicial decisions will be examined to determine if progress is being made to safeguard our coastal values. It will be a paper that will examine the past to see if decisions made today will lead us to a better future.

Overview

What is the State of the Region? What does the *Draft SEQ Regional Plan* hold for our coastal systems? When one looks at the relevant documents it is easy for ordinary folk to be overwhelmed and confused as to what is happening and where we are going. The failure to integrate and prioritise policy objectives and continuing compromise forms the basis of the confusion and the hallmark of current planning documents. The Regional Plan will not deliver real benefits to the community while it fails to confront and articulate the truth, that is, that there are "limits to growth" – the population issue. The only way that human populations can grow is through the use of fossil fuels and diverting the earth's resources and energy away from other species.¹ We in SEQ are squeezing the life out of entire ecosystems and showing scant regard for other species.

Many analysts agree that human population, its size, affluence and technology are the fundamental causes of biodiversity loss and decline.² It's all about numbers and whether you like it or not, the fact is the majority of the economic, social and environmental problems we face today have their roots in overpopulation.

The matter has been debated in Australia for years but rarely has it been debated fairly. Thomas Griffith (1 December 1880 - 5 November 1963) was an Australian geographer, anthropologist and world explorer. He was Australia's first geographer and was only too aware of the physical limitations of our continent.

Amongst the 1920's catch cry of 'Australia Unlimited' Griffith steadfastly insisted that the environmental factors would be sufficiently strong to restrict

¹ Recher, H. 1994. Ecosystems. in H. Recher, D. Lunney and I. Dunn (eds). A Natural legacy: ecology in Australia.

² David. Yencken and Debra Wilkinson. 2000. Resetting the Compass. Australia's Journey Towards Sustainability.

the total to about 19 or 20 million people by the turn of the century. Of course politicians then and now ignore the words of our scientists when speaking on this matter and consequently it should come as no surprise that we are encountering environmental disasters at an increasing rate and unfortunately have limited means both financially and technologically to address them. When writing his account of the Peloponnesian War of early 400 BC, Thucydides, an Athenian general and historian said, *“It will be enough for me, however, if these words of mine are judged useful by those who want to understand clearly the events which happened in the past and which (human nature being what it is) will, at some time or other and in much the same ways, be repeated in the future.”* ‘The Collapse of Societies’ by Jared Diamond certainly highlights the fact that we humans are very good at repeating history by ignoring the warning signs until it’s too late.

So what about the coast? The Great Barrier Reef Marine Park Authority was created in July 1976 so we have 30 years of coastal planning in Queensland which we can draw upon. There has also been at least 20 years of community goodwill put into the development of coastal protection for Moreton Bay/SEQ. Under these circumstances one would think the protection of SEQ’s coastal zone would be well advanced. Perhaps it is time to seriously reflect upon this point.

2.0 The State of the South East Queensland Region (SOR)

The SOR was to be released mid 2008 but most likely due to its content, was kept under the radar so to speak until December and certainly attracted little fanfare. It’s on the Department of Infrastructure and Planning’s website but not referenced by the Draft SEQ Regional Plan. To sum up the report, urban development boomed at the expense of social and environmental values. The consequence of this is that the coastal zone of SEQ will suffer for reasons explained below.

The SEQ State of the Region Report (SOR) has been developed based on the SEQ Regional Plan 2005–2026. The data and information contained in the SEQ State of the Region Report has informed the development of the draft SEQ Regional Plan 2009–2031 (Draft SEQ Regional Plan). The publication of the SEQ State of the Region Report enables the SEQ community to provide comment on the Draft SEQ Regional Plan based on accurate and relevant regional information.

*The data is a snapshot in time, showing emerging patterns and trends up until the time of publication. Sustainability indicators are used to describe what aspects of the region are changing and in what direction. Collected over time, they provide a sound baseline to track and monitor progress. Each sustainability indicator has a simple four-colour system to describe its status.*³

³ <http://www.dip.qld.gov.au/resources/plan/SEQ/state-of-region/00-intro-contents.pdf>

- A red symbol indicates where the status is getting worse, in poor condition, or not sustainable.
- An amber symbol indicates where the status is stable, of concern, or less sustainable.
- A green symbol indicates where the status is improving, in good condition, or sustainable.
- A grey symbol indicates where the status is not currently assessable.

Figure 1. SOR symbols used to highlight status of indicator.

The 2005 *SEQ Regional Plan* was assessed against its Desired Regional Outcomes (DRO). DRO 1 was about Sustainability - *The region grows and changes in the most sustainable way; generating prosperity, maintaining and enhancing quality of life, and providing high levels of environmental protection.*

Professor Ian Lowe made this statement with regard to DRO 1. *“Warning bells are ringing. As the summary puts it, SEQ residents are ‘relatively satisfied’ with the region’s economic performance, see ‘scope to improve the state of the environment and social conditions’, and on average feel that life in SEQ is getting worse. The data confirms this subjective impression. The genuine progress indicator for the state has declined since 1999, suggesting social and environmental costs of growing consumption are exceeding the benefits. While there are not separate figures for SEQ, the results will be similar because the region has such a large fraction of the state’s population. Lowest levels of measured satisfaction are with the environment and ‘community connection’. The report notes a widening disparity in incomes between the rich and poor, increasing debt levels and a range of serious environmental costs of recent expansion.*

The changes in ecosystem function between 1991 and 2004 should also be a source of concern. Ecosystem function improved over about 0.57 million ha and decreased over 1.35 million ha, mainly as a result of vegetation clearing. If the population of the region continues growing rapidly, there will inevitably be a further decline in local ecosystem function”⁴.

- Population growth
- Ecological footprint
- Ecosystem services
- Genuine progress indicator
- Quality of life

Figure 2. Status of sustainability indicators.⁵

DRO 2 dealt with the Natural environment - *A healthy natural environment supports the region’s rich biodiversity, clean air and water; and is sustainably*

⁴ <http://www.dip.qld.gov.au/resources/plan/SEQ/state-of-region/00-intro-contents.pdf>

⁵ <http://www.dip.qld.gov.au/resources/plan/SEQ/state-of-region/01-sustainability.pdf>

managed to support economic development, outdoor lifestyles and community needs.

Professor Hugh Possingham—Director, Centre of Applied Environmental Decision Analysis, The University of Queensland said, *“Our economy and society are entirely dependent on the environment in which we live. Given this fact, it is always disappointing to see that our knowledge of the state of the environment lags well behind our knowledge of the state of the economy. Aside from the rigorous and user-friendly indicators on our waterways, plus some solid data on air quality, we know very little about the state of SEQ’s environment.”*⁶

As one of the authors of the SOR I too agree with Professor Hugh Possingham about the lack of useful indicator data but we can make some useful observations. Clearly across most of the Natural Environment indicators showed problems and they are getting worse.

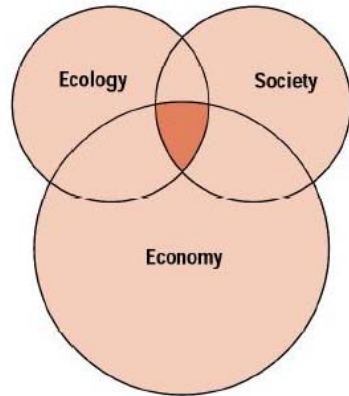
- Back on Track Species Prioritisation Framework
- Population of selected species
- Marine protected areas
- Terrestrial protected areas
- Extent of regional ecosystems
- Invasive plants and animals
- Freshwater, estuarine and marine water quality
- Emissions to water
- Air quality
- Emissions to air from large industry
- Greenhouse gas emissions
- Climate change trends

Figure 3. Status of natural environment indicators.⁷

Unfortunately matters are unlikely to improve while the *SEQ Regional Plan* and the Integrated Planning Act (IPA) are based on what is affectionately known as the ‘pig headed’ decision-making model. This model was presented by Ian Lowe in the 1996 Australian State of Environment Report (10.4 A). It is an outdated model and one that fails to deliver ESD outcomes. See Figure 4.

⁶ <http://www.dip.qld.gov.au/resources/plan/SEQ/state-of-region/00-intro-contents.pdf>

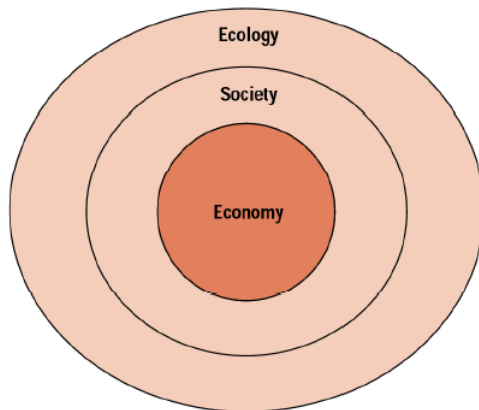
⁷ <http://www.dip.qld.gov.au/resources/plan/SEQ/state-of-region/02-natural-environment.pdf>



A. The predominant model of decision making in Australia until the 1980s. It gives primacy to economic decisions and assumes that environmental problems can always be solved if the economy is sound.

Figure 4. The Pig headed decision making model.

The decision making model that should be used is shown in Figure 4.



C. This is the decision making model needed for an ecologically sustainable future for Australia. It recognises that the economy is a sub-set of society, since many important aspects of society do not involve economic activity. Similarly, human society is totally constrained by the natural ecology of our planet. It requires integration of ecological thinking into all social and economic planning.

Source: Adapted from Lowe, 1994.

Figure 5

So what does this mean for the coastal region of SEQ? Quite simply it means all is not well. Our marine environment is poorly protected, subject to weed infestations and feral animals; water quality is compromised and the impacts of climate change are to date effectively ignored. Coastal development continues and is poorly planned resulting in further coastal habitat being lost.

Until recently, 0.5% of Moreton Bay was fully protected in Green Zones. As of the 1st March 2009 it is now 16% protected, still well short of 20 – 30%, which is considered by contemporary science as adequate. Depending which way the State election goes it may even go backwards.

The *Draft SEQ Regional Plan* gives little attention to climate change. Major coastal developments in SEQ are using models factoring in a sea level rise of .27 - .30m, well short of 0.8m being considered by some state agencies as inadequate when you consider contemporary science. Professor Steffen stated, "In the 21st century a sea level rise of at least 0.5 metres is a certainty, a rise of 1m to 1.5m is more likely while a rise of up to 4m this century is possible". He also stated strict planning laws should be required to prevent infrastructure being built too near the coast and that a value around 5m above current sea-level would be conservatively prudent to locate long-lived infrastructure.⁸ Given this advice one must question the reasoning for allowing development along our coastline in areas between 1 – 2m above current sea level, for which there are several recent developments and a number proposed. Little attention is also given to accommodating retreating coastal habitat due to sea level rise. Much will be lost if hardened (urbanized) environments are allowed to continue to encroach on such habitats. Ignoring the obvious impacts of climate change has serious negative consequences for our coastal zones. Another serious shortcoming is failing to manage the risks associated with the unknown, such as the impacts of our coastal climate zone which is moving south, shifting more than 200km in the past 60 years.

Thankfully the Healthy Waterways Partnership Program has provided outstanding science and guidance on dealing with waterway and coastal challenges. Investment in the suggested actions unfortunately falls well short of what is required. For example, we talk about Urban Water Sensitive Design but it is neither mandated nor happening to any great extent. The same can be said for stormwater management in general and re-vegetation of our degraded riparian corridors.

Even if the required effort were funded, the fact is that at current rates SEQ's population will grow to 3.5million by 2026, then 7 million by 2061 and then 14 million by 2096. These figures are easy to calculate. Simply take the number 70 (Rule of 70) and divide it by the annual growth rate and you obtain the doubling time of your current population. Urbanisation is noted for its significant negative impacts upon waterways and the above numbers are going to be devastating. They will result in at least 70,000 ha of bushland and open space being cleared by 2026 to accommodate urban growth and will generate huge volumes of polluted stormwater and silt. Billions of dollars will be spent on building and upgrading water storage infrastructure, which will

⁸ Prof. Will Steffen. Inquiry into climate change and environmental impacts on coastal communities. 30/05/2008

only further damage our waterways, while the five (5) desalination plants proposed by 2056⁹ will not help matters either.

With extensive areas of habitat cleared and to be cleared what is left and more importantly, what is protected? The government as of March 2009 states that 80% of SEQ is protected from urban development but this 80% is in fact not protected from the impacts of urban growth.

To date the SEQ bioregion supports 44.1% remnant vegetation. We are expecting this 44% of the native vegetation in SEQ to provide the 100% of the ecosystem services that once existed prior to European settlement. Under this scenario greater environmental degradation can only be expected and being at the end of the drainage system our coastal environs will suffer the most.

Of the remaining habitat that is left in SEQ very little is protected. Currently only 17% of SEQ is in public ownership and under some form of protection with little of this available or suitable for outdoor recreational use. It is one reason why Landscape Heritage and particularly Outdoor Recreation opportunity scored so poorly in the SOR (See Figure 6). Interestingly Melbourne has 33% of its area in public ownership and protected, Sydney 43%¹⁰ with \$25 million spent annually for recreational purposes.¹¹ Queensland spends very little if anything on acquiring recreational land.

- Landscape heritage
- Outdoor recreation opportunity
- Outdoor recreation participation
- Scenic amenity

Figure 6.¹²

Landscapes included are rural lands and it's interesting to note that neither the State Planning Policy for the *Development and the Conservation of Agricultural Land* (SPP 1/92) nor the Regional Plan has saved farmland. Instead of protecting our farmland in the era of peak oil we have grown houses on some of our best farming soils, which have the most reliable rainfall.

⁹ <http://www.qwc.qld.gov.au/myfiles/uploads/SEQWS/Chapter-6.pdf>

¹⁰ Brisbane Institute. In Brief - GREEN SPACE AUDIT OF SOUTH EAST QUEENSLAND. 2004.

¹¹ Darryl Low Choy. Parks for People: Meeting the outdoor recreation demands of a growing regional population.

¹² <http://www.dip.qld.gov.au/resources/plan/SEQ/state-of-region/03-regional-landscape.pdf>

Compounding the above problems created by unsustainable growth are our equally unsustainable consumption patterns. SEQ's world class ecological footprint is a shameful 7.27 global ha / person. To supply the goods and services and deal with the wastes SEQ produces requires in theory an area that extends from the NSW border to Bundaberg and out to Dalby. It is interesting to note the world's biologically productive land and sea surface area is approximately 11.2 billion g ha (Global Footprint Network, 2008), or about 1.8 g ha available per person. The world average footprint of 2.2 g ha per person is therefore 25% higher than the productive capacity of the globe (WWF, 2006). This means that, on average, it would take one year and three months to regenerate the amount consumed in one year. On a global scale, resources are being used faster than they are being replenished, that is - the world is living on natural capital rather than the interest. It is this combination of population growth and high consumption rate that will ensure SEQ's social and environmental systems will not only continue to be stressed but the negative impacts will accelerate.

Recent research show that when native vegetation falls below 30% the loss of species accelerates.¹³ With little habitat remaining and no mechanisms in place to secure habitat, local extinction can be expected. Certainly within the life of the current *SEQ Regional Plan* the SEQ koala has gone from common to vulnerable and according to Redland City Council data, to endangered.¹⁴ The koala population is understood to have crashed by 26% in just seven years and yet data not yet released by the State Government will show this to be closer to 50%.

A rapid decline in species should come as little surprise, given the Morton sub-region (SEQ2) of SEQ is recognised as an Endangered Sub-region¹⁵ (within highest stress class).¹⁶ (See Figure 7 & 8). Any chance of undoing the damage and preventing further decline requires a landscape scale response and to date this has not happened and without major investment, is unlikely to occur.

¹³ http://www.anra.gov.au/topics/vegetation/pubs/landscape_health/landscape_health_overview.html

¹⁴ Redland City Council Biodiversity Strategy 2008 – 2012.

¹⁵ http://www.anra.gov.au/topics/vegetation/pubs/landscape_health/landscape_health_overview.html

¹⁶ http://www.anra.gov.au/topics/vegetation/pubs/landscape_health/landscape_health_synthesis.html

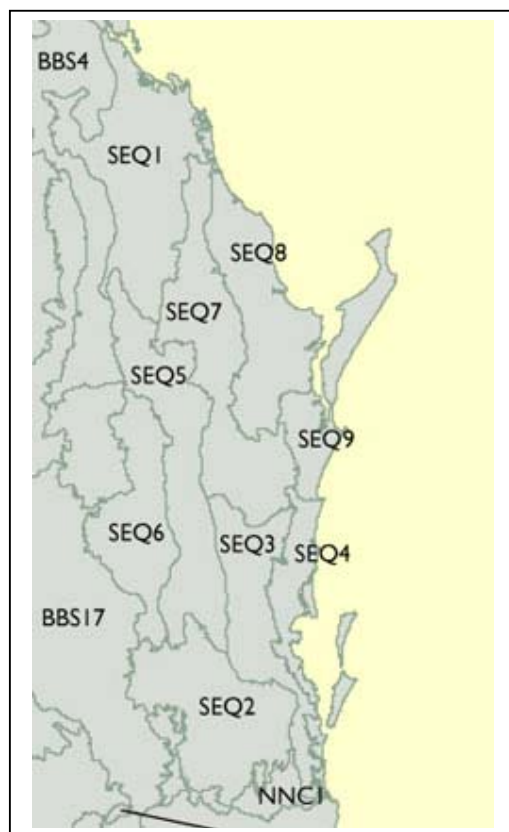


Figure 7. Sub regions for SEQ.¹⁷

Landscape stress

Class	
1	highest stress
2	
3	
4	
5	
6	lowest stress

Attributes described at:

http://www.anra.gov.au/topics/vegetation/pubs/landscape_health/landscape_health_appendix2.html

IUZ	IBRA5 Bioregion	IBRA5 subregion	Subregion area (ha)	c1 class	c2a class	c2b class	c3a class	c3b class	c4 class	c6 class	c8a class	c8b class	c8c class	c8d class	Landscape stress class
Y	South Eastern Queensland	SEQ1	990674	4	2	1	0	1	3	3	4	3	2	3	5
Y	South Eastern Queensland	SEQ2	784980	2	1	1	0	1	2	1	4	2	2	5	1
Y	South Eastern Queensland	SEQ3	527777	3	2	1	0	1	3	3	4	1	1	5	3
Y	South Eastern Queensland	SEQ4	343335	3	3	2	0	2	2	1	4	2	2	2	3
Y	South Eastern Queensland	SEQ5	806790	2	1	1	0	1	2	2	3	3	2	5	3
Y	South Eastern Queensland	SEQ6	563873	2	2	1	0	1	2	2	4	3	2	5	3
Y	South Eastern Queensland	SEQ7	858703	3	1	1	0	1	3	2	4	2	1	4	4
Y	South Eastern Queensland	SEQ8	698878	3	3	2	0	2	3	2	4	3	2	3	4
Y	South Eastern Queensland	SEQ9	368878	5	5	5	0	5	4	3	5	3	2	3	6

Figure 8. Sub region landscape stress class.¹⁸

3.0 Moreton Bay – looking back

¹⁷ http://www.anra.gov.au/topics/vegetation/pubs/landscape_health/landscape_health_appendix1.html

¹⁸ http://www.anra.gov.au/topics/vegetation/pubs/landscape_health/pubs/condition-summary.xls

4.0 SEQ Regional Plan - Moreton Bay looking forward

The *South East Queensland Regional Plan 2009-2031* will be the principal policy plan for the community of SEQ and yet it is virtually silent on protecting coastal and marine wildlife habitats from climate change.

The SEQ NRM Plan, which is a non-regulatory plan for the region, does include long-term targets, but it relies on goodwill by all sectors to achieve good outcomes. History has shown with the Moreton Bay Marine Park Zoning Plan that the final level of protection may not be the same as the level intended through goodwill.

*The Draft South East Queensland Regional Plan 2009–2031 takes a balanced approach to how and where SEQ will grow. It continues to protect the region from urban sprawl, focusing urban growth into the Urban Footprint and enhancing the regulations introduced in 2004 to control development. It preserves the region's landscape, open spaces and farmland and ensures that the environmental quality of the region is maintained.*¹⁹

The Draft SEQ Regional Plan (the Plan) will continue with the same objective as the current *SEQ Regional Plan* to manage growth rather than deal with the more contentious issue of control. In doing so I reflect upon Dr. Brian Walker's (CSIRO) rule on digging holes²⁰ - once you have dug yourself a hole, you should stop. Unfortunately, the Plan encourages us to continue digging, perhaps more slowly but nonetheless to still dig.

Will the Plan achieve Ecologically Sustainable Development (ESD)? Well if the analogy that ESD is all about enjoying the fruit without damaging the tree then the answer is no, the Plan encourages us to continue ripping limbs and foliage from that tree. Put another way using a different analogy: unless limits to population growth are clearly defined, SEQ will continue to die a slow death from a thousand cuts.

In summary, the Plan has incorporated aspects of the SEQ Natural Resource Management plan (SEQNRM plan) with Resource Condition Targets (RCTs) recognised in S.4.1.4 and Eco System Service S. 4.3.1. This is where the good news stops. The Plan will most likely fail to deliver appropriate responses to maintenance and protection of biodiversity, koalas and coastal environs. The Plan also fails to adequately address climate change and does not include or fails to put into policy the excellent work carried out by SEQ Catchment. This work is the constraint and ecosystem services mapping, both of which are not called up through policy statements and therefore their chances of application severely diminished. More important to note is that the Plan fails to provide regulatory provisions that prohibit development and therefore puts Councils at the continued risk of dealing with inadequate and poorly made development applications.

This will mean that the SEQ coastal resources will continue to be exploited and will be poorly protected from direct and indirect human induced impacts.

4.1 Biodiversity

¹⁹ <http://www.dip.qld.gov.au/resources/plan/SEQ/draft-regional-plan/front-cover-foreword-and-contents.pdf>

²⁰ Dr. Brian Walker. CSIRO Sustainable Ecosystems. ABC Podcast. Big Ideas. 2008 Deacon Lectures Series.

Map 5. of the Plan highlights the state, regional and local biodiversity of significance. This map has no legislative teeth; it is neither referenced in the policy statements nor called up through policies. The biodiversity map is a 'give regard to' document, meaning there will be no obligation to protect biodiversity.

4.2 Climate change

Climate change is the biggest issue facing the community after unsustainable population growth, yet the Plan makes no strong statements on this matter and reflects upon outdated data.

The Plan stated that over the past century, sea levels have risen about 17 cm. While this may be correct it would have been more pertinent and informative to highlight to the public that the rate of sea-level is rising and at a concerning rate. If the rate of sea level rise experienced during the early 1990's continues, there will be a further 10cm added by the year 2020 relative to the 1990 levels and that's just 30 years away.²¹

Recent estimates of this effect indicate that a rise in mean sea level in the mid-range of that projected by the International Panel on Climate Change_ (~50cm by 2100) will mean that 1 in 100 year events (at 1990 sea levels) at sites around Australia may recur as often as 1 in 10 years by 2050, 1 in 3 years by 2070, and annually or more frequently by 2100. If mean sea level continues to track the uppermost IPCC projections (leading to ~80cm rise by 2100), then the same 1 in 100 year events will become annual events in some Australian locations by 2050.²²

With climate change come higher sea levels and more intense cyclones. These intense cyclones will interact with higher sea levels to produce more devastating storm tides and coastal inundation. As an example, category Tropical Cyclone Althea (952 hPa), which affected Townsville in December 1971 produced a 3.7 metre storm tide above normal tide. **With rising sea levels, a 3.7 metre storm tide (experienced in 1971) could become an 8.7 metre storm tide by 2100.**²³

These potential impacts are of great concern but is government responding to them?

In the Draft SEQ Regional Plan, policies 1.4.1, 1.4.2, 2.4.2 and 2.4.3 are based on 'should have regard' rather than 'must have regard'. These policies

²¹ Australian Bureau of Meteorology. Inquiry into climate change and environmental impacts on coastal communities. 26/05/2008

²² Prof Bruce Mapstone and Dr John Hunter. Antarctic Climate & Ecosystems CRC (ACE CRC). Inquiry into climate change and environmental impacts on coastal communities. 30/05/08

²³ Climate Change and the Great Barrier Reef: A Vulnerability Assessment. Johanna E Johnson and Paul A Marshall.

are perhaps admirable to some but given they are not much different from those found in the *2005 SEQ Regional Plan* they equate to old failed policies. This is also not just about semantics it's about the need to ensure planning results in genuine effort being undertaken to address climate change impacts. Developers and non-sympathetic local government authorities have in the past and will in the future take advantage of weak policies that amount to nothing more than motherhood statements.

The policies and supporting notes fail to convey the sense of urgency required to deal with the impacts of climate change. While scientists such as Professor Will Steffen are providing clear guidance (Professor Steffen stated long term infrastructure should be sited 5m above current sea level ²⁴) the policies in the Plan are not policies that will see their intent operationalised.

Even if governments are not interested in the protection of our natural values there will be economic concerns if government fails to protect our coastal values and communities from the impacts of climate change.

By permitting further urban development within the coastal zone the state government is putting public, industry and private financial resources at great risk.

As an example, Rhodes in NSW has undergone significant (but typical) urban development during the last 70 years. It can be shown that an extreme weather event, of identical intensity, striking the same location in 2007 would cause significantly more damage than if it had struck in 1930. Models show that an extreme hail event occurring in this location in 1930 would have cost an equivalent of \$5 million. However, due to the increased development in this area, the changes in the nature of its use and a subsequent increase in the value of the assets to be found in the area - the same storm occurring in 2007 yielded a potential damage bill of \$900 million. ²⁵

4.3 Regional Open Space

There is still no mechanism set up to address the shortfall in open space nor to acquire same. The State Government's Priority Infrastructure Plans (PIP) provide for hard infrastructure and public parks but not soft infrastructure such as green space. Bushland and open space acquisition will, it appears, rely upon the purse strings of local government authorities. It is for these reasons that pressure will grow to open conservation land for outdoor recreation resulting in conflicts between community sectors. It's happening now and it will get worse. Horse riding in National Parks is already happening, Mountain Bike riding in Council conservation reserves is aggressively being pursued and both major parties during the election are proposing more boat ramps. Population growth brings increasing demands for more recreational infrastructure and the SEQ coastline will not be immune.

4.4 Designing a city for cars

²⁴ Prof. Will Steffen. Inquiry into climate change and environmental impacts on coastal communities. 30/05/2008

²⁵ Insurance Council of Australia. Inquiry into climate change and environmental impacts on coastal communities. 21/05/2008

The Plan shows rather than designing a city for people we are designing a city for cars. It has been suggested that the ratio of parks to parking lots is a good indicator of the liveability of a city.²⁶ Perhaps this can be identified in the next State of the Region Report. What is clear is more green space and community land will be lost to more roads for a growing population. What is also clear is the production and burning of fossil fuels used by cars/vessels is having a significant impact on our coastal systems. Albinism in Moreton Bay mangroves due to hydrocarbons is one fatal example.²⁷

4.5 Regulatory provisions

The regulatory provisions in the Plan must provide the option to say no to certain developments but they don't. Without prohibitions our coastal areas will be at risk from financially well resourced developers and pro development councils.

5.0 Conclusion

The State Government's solution to SEQ's rapid growth is to send people west. Will this protect our coastline? I doubt it. It doesn't matter if we push up or out or do both, the fact is that there will be services to provide and wastes to deal with and this will continue to rapidly corrode SEQ's natural environment. The short term technological and economic approaches that our current planning supports are incapable of dealing with complex problems. We are part of an ecosystem and we need an ecosystem's approach to planning. I feel SEQ Catchments' efforts in constraint mapping and ecosystem services are leading us in the right direction and should have more influence in planning. I also have no doubt that unless we achieve an ecologically sustainable population in SEQ there is only one path we will take, a path that will ensure SEQ's social and environmental values will spiral into decline. Go west young man is not a policy designed to achieve sustainable outcomes, it's a policy based upon sticking one's head in the sand so to avoid the need to address SEQ's unsustainable human population.

Reference:

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²⁶ Lester. R. Brown. Plan B 3.0. Mobilizing to save civilization.

²⁷ N.C. Duke, A.J. Watkinson. Chlorophyll-deficient propagules of *Avicennia marina* and apparent longer term deterioration of mangrove fitness in oil-polluted sediments *Marine Pollution Bulletin* 44 (2002) 1269–1276.