



Social Responsibilities Committee

**Wild Rivers Policy –
Likely impact on sustainable development**

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**On behalf of the Social Responsibilities Committee,
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ABBREVIATIONS

CPMA	COASTAL PROTECTION MANAGEMENT ACT
CYP	CAPE YORK PENINSULA
CYPHA	CAPE YORK PENINSULA HERITAGE ACT
CYPLUS	CAPE YORK PENINSULA LAND USE STUDY
DA	DEVELOPMENT APPROVAL
DECC	DEPARTMENT OF ENVIRONMENT AND CLIMATE CHANGE
DEEDI	DEPARTMENT OF EMPLOYMENT, ECONOMIC DEVELOPMENT AND INNOVATION
DERM	DEPARTMENT OF ENVIRONMENT AND RESOURCE MANAGEMENT
DEWHA	DEPARTMENT OF THE ENVIRONMENT, WATER, HERITAGE AND THE ARTS
EIS	ENVIRONMENTAL IMPACT STATEMENT
EPA	ENVIRONMENTAL PROTECTION ACT
ERA	ENVIRONMENTALLY RELEVANT ACTIVITY
FMA	FLOODPLAIN MANAGEMENT AREA
GBRMPA	GREAT BARRIER REEF MARINE PARK AUTHORITY
HPA	HIGH PRESERVATION AREA
IDAS	INTEGRATED DEVELOPMENT ASSESSMENT SYSTEM
IPA	INTEGRATED PLANNING ACT
IREG	INDIGENOUS REGION
LG	LOCAL GOVERNMENT
MCU	MATERIAL CHANGE OF USE
ML	MEGALITRES
MT	METRIC TONNE
NPW	NATIONAL PARKS AND WILDLIFE ACT
NTA	NATIVE TITLE ACT
OW	OPERATIONAL WORKS
SD	STATISTICAL DIVISION
SDPWOA	STATE DEVELOPMENT AND PUBLIC WORKS ORGANISATION ACT



Social Responsibilities Committee

SLA	STATISTICAL LOCAL AREA
SPA	SUSTAINABLE PLANNING ACT
SRC	SOCIAL RESPONSIBILITIES COMMITTEE
SSD	STATISTICAL SUBDIVISION
VMA	VEGETATION MANAGEMENT ACT
WA	WATER ACT
WRA	WILD RIVERS ACT
WRP	WATER RESOURCE PLAN



EXECUTIVE SUMMARY

The State Government has repeatedly claimed that the wild rivers legislation does not impede sustainable development. There are two aspects to the Social Responsibility Committee's (SRC) and the affected communities' objections to the wild rivers legislation.

The first relates to how it has been implemented, namely without consent of Indigenous groups. In doing so, it fails to meet the standards set by the United Nations International Declaration on the Rights of Indigenous People to which the Commonwealth Government has given its support and contravenes the Cape York Peninsula Heads of Agreement (signed by the State Government in 1996).

The second relates to what the legislation actually does. The overall effect of the many prohibitions and restrictions is that very limited agricultural, urban and industrial development (eg. small scale "eco-friendly" tourism) is allowed within High Preservation Areas (HPAs) and nominated waterways of PAs of wild river areas. This is particularly problematic because these areas (referred to by local residents as "river land") are the most productive and therefore most viable land for those relying upon the land for their income.

On both fronts, rights have been violated - both the right to consent by Indigenous groups and the right to derive income from the land by all groups, both Indigenous and non-Indigenous.

This paper addresses the second set of rights, by demonstrating how sustainable development is impeded.

The Cape York Peninsula Land Use Study undertaken in the late 1990s clearly illustrates enormous productive potential within the Peninsula. In 2005, two Queensland Departments commissioned a project to identify and examine current agricultural and horticultural endeavors and the potential for expanding these industries on CYP in an ecologically and sustainable way. The report states:

"...for future horticultural or agricultural enterprises to succeed and maximize returns on investment in the Cape York Region, access to irrigation is critically important to ensure farming viability." and lack of access to irrigation "...could make long term survival of smaller enterprises with limited financial reserves a concern."

*"At this early stage it is difficult to predict or speculate what impacts the proposed Wild Rivers Legislation will have on agricultural and pastoral activities on Cape York. ... However in the analysis of the region as an existing or future potential farming area, the implementation of this legislation in concert with the Vegetation Management legislation ... gives a fair indication that the northern region of Cape York will become an increasingly difficult place to contemplate as an area to create large farming enterprises **outside the scope of what currently exists.**"*

Given the gravity of the legislative impact on future new development, the right to development should only be taken from indigenous people through a consent process (i.e. where consent is given we accept that traditional owners have agreed to forego their development opportunities).

- the right of all peoples to self-determination, including the right to pursue their **economic**, social and cultural goals, and manage and dispose of their own resources. (Article 1);
- the **right to work** defined as the opportunity of everyone to gain their living by freely chosen or accepted work. Parties are required to take "appropriate steps" to safeguard this right, including **economic policies aimed at steady economic development and ultimately full employment**. (Article 6). The work referred to in Article 6 **must be decent work**, where this is effectively defined as "just and favourable" working conditions. (Article 7).



This paper argues that the challenge for the region to take advantage of this productive capacity lies in the ability to store the high summer rainfalls for use in the dryer months. Water allocations or water extractions from wild rivers and nominated waterways are strictly limited and regulated. No new dams or weirs are permitted on a wild river or its main tributaries, with operational works for the taking of overland flow water only permitted for stock and domestic purposes. These new off-stream storages are limited in capacity, which affects the scale of activities and consequently viability.

This report argues the prohibitions and restrictions imposed by the wild rivers legislation have their underpinnings in the water resource planning (WRP) process. While no public WRP has been undertaken for the Peninsula, those undertaken for earlier declarations within the Gulf point to a flawed methodological approach to assessing future requirements. That is, *“the size of allowable storages was derived by considering hydrological, ecological and other factors to establish a level that would provide land holders with equitable access to the resource without compromising WRP goals”*.

In the case of the Gulf WRP, such goals are that reserves and existing entitlements are limited to 1.5% of the total annual discharge to the Gulf of Carpentaria, with this to ensure that the impact of development on river flows and river health are minimised. The SRC believes that further work should be undertaken to ascertain whether higher takes are in fact sustainable. Evidence by some experts approached by the SRC puts the figure as high as 10% in some areas.

Also questionable is the premise that unallocated water reserves should be structured to support economic growth based on existing patterns. There are currently very low levels of development due to a range of constraints. Without appropriate infrastructure, and without major changes to the Wild Rivers Act, there will be neither significant infrastructure nor significant development in the future.

The SRC's assessment of the various statutes which operate within wild river areas is that too little emphasis is placed on economic benefits from activities. The obvious exception to this is mining, which accounts for two thirds of the “applications” which were approved and, perhaps not surprisingly, two thirds of the replacement land cover following clearing.

One may ask how such an untenable set of regulations could progress this far. The answer to this question is a complex mix of small political constituencies living in vast areas of largely undisturbed environment and enormous bureaucracies, which in their desire not to repeat the environmental consequences of past development, have mistakenly replaced sensible conservation values with more harmful preservation values.

In trying to keep the environment as it is now (preservation), they have compromised opportunities for development and wealth creation. They have ignored other more rational approaches which recognise the dynamic nature of the environment and the fact that with sensible management and monitoring, the land can be both productive and protected. That is, they have failed to bring about a “wise use” of land.



1 Introduction

The Social Responsibilities Committee's (SRC) review of the Wild Rivers legislation has shown that the objections expressed by affected Indigenous communities and leadership groups that the Wild Rivers Legislation will stifle legitimate Indigenous economic opportunities are legitimate. The legislation is highly likely to adversely effect Indigenous well-being. It represents an unjustifiable erosion of hard won Indigenous property rights.

The Wild Rivers Legislation as it was enacted in 2005 is implemented through the Integrated Development Assessment System (IDAS) via the Wild Rivers Code, thereby influencing the conditions for development approval within wild river areas. The *Wild Rivers Act (2005)* is one of many pieces of legislation aimed at ensuring that development is "ecological sustainable", by placing restrictions on the type and scale of development within declared Wild River areas.

While the focus of the SRC's advocacy is on the Wild Rivers legislation, implementation of a wild rivers declaration occurs via other agencies depending on the nature of the proposed activities. Therefore, a complete understanding of its impact on development necessitates knowledge of 13 other statutes, most notably, the *Vegetation Management Act 1999*, the *Water Act 2000* and the *Environmental Protection Act 1994*.

A central issue in the current debate is the notion of "ecological sustainability", which is defined in the *Sustainable Planning Act 2009*.¹ Implementing legislation which is consistent with the objective of ecological sustainability requires an in-depth understanding of "sustainability". A sustainable use of resources is both interdependent and relative to the level of intergenerational well-being within a region. Therefore, in determining a wise use of natural resources, consideration must be given to the level of well-being of communities. In addition, "sustainability" depends on the landscape, the nature of the river basins, rainfall, temperatures, seasonality, as well as the natural environmental values. These can and do vary across Cape York Peninsula, and consequently problems can and do occur when a too generalised approach is used to manage resources over vastly different areas.

This report argues that the State Government has failed to strike the correct balance between the competing needs of well-being (linked to the economic, social and cultural benefits of

¹ Ecological Sustainable Development is defines in the SPA 2009:

- a) Ecological processes and natural systems are protected if:
 - i. The life-supporting capacities of air, ecosystems, soil and water are conserved, enhanced or restored for present and future generations; and
 - ii. Biological diversity is protected; and
- b) Economic development takes place if there are diverse, efficient, resilient and strong economies (including local, regional and State economies) enabling communities to meet their present needs while not compromising the ability of future generations to meet their needs; and
- c) The cultural, economic, physical and social wellbeing of people and communities is maintained if:
 - i. Well-serviced and healthy communities with affordable, efficient, safe and sustainable development are created and maintained; and
 - ii. Areas and places of special aesthetic, architectural, cultural, historic, scientific, social or spiritual significance are conserved or enhanced; and
 - iii. Integrated networks of pleasant and safe public areas for aesthetic enjoyment and cultural, recreational or social interaction are provided; and
 - iv. Potential adverse impacts on climate change are taken into account for development, and sought to be addressed through sustainable development, including, for example, sustainable settlement patterns and sustainable urban design.



development), with the protection of the environment (linked to ecological biodiversity). Not enough emphasis is placed on economic benefits in the drafting and implementation of various Statutes.² Following the SRC's 2009 report *Wild Rivers Policy – Likely Impact on Indigenous Well-Being*, this report aims to provide further detail which demonstrates how the Wild River declarations will impede sustainable development into the future. Issues related to the lack of consent, while equally or more important, and clearly an important consideration highlighted in the SRC's recent position statement, are not dealt with in this report.

1.1 Background

The SRC is mindful of the legitimate goal to protect the environmental values of Wild Rivers while maintaining a capacity for sustainable economic development in remote Indigenous communities. On 28 April 2010, the Social Responsibilities Committee entered the debate over Queensland's wild river laws in calling on the Queensland government to improve the Wild Rivers legislation and implementation process by:

1. Accepting a framework for implementation of Wild Rivers legislation specifically and Indigenous land management matters generally, which:
 - a. protects the property rights of affected Indigenous communities;
 - b. protects the environmental values of selected areas; and
 - c. allows opportunities for sustainable economic development and engagement with the real economy.
2. Making no future Wild Rivers declarations without the explicit and properly acquired informed Indigenous consent of affected Indigenous traditional owners. Where such consent cannot be properly acquired, declaration should not proceed.
3. Imposing an immediate moratorium on further declaration of any additional Wild River areas (ie. do not proceed with the Wenlock River declaration).
4. Revoking the April 2009 declarations of the Archer, Stewart and Lockhart rivers, given the evident absence of properly secured Indigenous consent; and
5. Considering a specifically tailored legislative response aimed at ensuring management of water extraction, in-stream mining and dam construction in rivers of high environmental value, with this legislative response developed through proper consultation with affected stakeholders.

On 4 June 2010, the Queensland Government declared the Wenlock, considered by many within CYP to be the "jewel in the crown" as a wild river area, ignoring the ASRC's call for a moratorium while further research was undertaken.

In response to the Anglican Church's condemnation of this legislation, Project Director Scott Buchanan from the Department of Environment and Resource Management (DERM) denied that economic development is being suffocated, stating that:

*"We've had over 100 development applications that have been approved and we're not aware of one development application that's been refused."*³

² Note that economic benefits can be qualitative as well as quantitative. See Commonwealth of Australia, Department of Finance, *Handbook of Cost-Benefit Analysis*, Australian Government Printing Service, Canberra, 1991, pp69-74.

³ Sexton-McGrath, Kristy, *Anglican Church Condemns Wild Rivers Law*, 28 April, 2010 (ABC online).



On 18 May 2010, Anna Bligh's policy adviser, Nick Williams, speaking for Ms Bligh, was reported to argue that:

*"...there was not evidence to support development restriction claims. Wild Rivers legislation prevents strip mining, major dams and intensive irrigation in riverine and wetlands areas, while supporting native title and sustainable development."*⁴

This report addresses both responses, through a closer examination of the concept of sustainable resource use and a discussion of the implementation process of the Wild Rivers legislation through the Integrated Development Assessment System (IDAS) via a range of statutes. It case studies an existing development within Cape York Peninsula, namely biodiesel fuel, from Pongamia (*Milletia*) tree seeds in order to demonstrate that the legislation does indeed inhibit *sustainable* new development, and that the costs to society are the net benefits foregone by such legislation prohibiting this activity in wild river areas.

The Minister Stephen Robertson in his submission to the recent Senate Inquiry argued that "...a wild river declaration does not and cannot affect the exercise or enjoyment of existing native title rights and interests".⁵ While this is based on a very strict interpretation of the *Native Title Act 1993*, it is interesting to note that the preamble to this very act has a broader intent when it states that:

*"Their rights and interests under the common law of Australia need to be significantly supplemented...
...Governments should, where appropriate, facilitate negotiation on a regional basis between the parties concerned in relation to ...(b) proposals for the use of such land for economic purposes."*

This would suggest that restrictions on the use of such land for economic purposes are equally relevant

On 22 June 2010 the Senate passed the *Wild Rivers (Environmental Management) Bill 2010* with a narrow majority following the recent inquiry by the Senate Legal and Constitutional Committee.⁶ The objective of the Bill is that this Act:

"...be a special measure for the advancement and protection of Australia's Indigenous people. In particular, it is the intention of the Parliament that this Act protects the rights of traditional owners of native title land within wild river areas to own, use, develop and control that land."

and that

"The development or use of native title land in a wild river area cannot be regulated under the relevant Queensland legislation unless the Aboriginal traditional owners of the land agree."

With the recent election, all bills before Parliament were prorogued.

⁴ Williams, Brian, Bligh Fights Back over Wild Rivers Opposition in *The Courier Mail*, 18 May 2010.

⁵ See the NTA 1993 for the definition of Native Title (s223) and s24MD on which the Minister states that "Even if a declaration could be considered to be a future act (which the Queensland Government asserts is not the case), it would be valid under the future act provisions of the NTA".

⁶ The Bill was introduced in the Senate as a private senator's bill on 23 February 2010 and is identical to the bill introduced in the House of Representatives by the Hon. Tony Abbot MP 8 February 2010.



1.2 Outline of Report

Section 2 examines the issue of “sustainability” and puts forward a framework for “wise use” of natural resources developed by the World Resources Institute in Washington DC. It presents some key environmental factors for Cape York Peninsula and puts forward theoretical and empirical factors considered to be important for development and productivity growth. It also presents a case study of an existing sustainable development activity which would not receive approval as a new development under the *Wild Rivers Act 2005*, thereby demonstrating that this legislation does, in fact, impede sustainable development.

Section 3 discusses the Wild Rivers legislation and the process for water resource planning which underpins water use, and is therefore the basis for the range of prohibitions and restrictions on resource use under a wild river declaration. There has been no water resource plan (WRP) undertaken for basins within CYP, hence this report uses the water resource plans undertaken for the Gulf and Mitchell WRP areas to highlight the underlying premises in the social and economic assessments of future water requirements and the relationship between the *Water Act 2000* and the *Wild Rivers Act 2005*. It aims to show the methodological weaknesses which have led to an over-emphasis on environmental constraints relative to the future economic benefits to be had from sustainable development.

Section 4 explains the process of resource management and Development Approvals (DAs) within CYP. It considers the role of land tenure, the IDAS and activities which are either prohibited or restricted within particular areas of a declared wild river basin. It then evaluates the legislation by considering how the legislation impacts on viability of various activities within these basins and highlighting a range of inconsistencies in its implementation.

Section 5 acknowledges the recent measures by the State Government to address the economic and social needs of Indigenous communities within CYP via the *Cape York Peninsula Heritage Act 2007*. It is essential that one recognises the potential for Indigenous economic well-being to be advanced at a faster pace if it can be connected to sustainable development initiatives within the broader community, (ie. both non-Indigenous where there are economic benefits for Indigenous people, and Indigenous). The gains to be had from creating two sets of rules for Indigenous and non-Indigenous interests (via the *Cape York Peninsula Heritage Act 2007*), while justified and welcome given the level of economic and social disadvantage of Indigenous groups, are limited within the broader context of a lack of overall development within the region. That is, Indigenous economic well-being is more likely to advance at a faster pace if development opportunities that generate economic benefits for Indigenous people are facilitated across all groups.

Finally, Section 6 summarises and draws conclusions from the arguments put forward in this report.



1.3 Wild River Declarations to Date

As of June 2010, four wild river areas have been declared in CYP (14 individual wild rivers in total and 29 major tributaries) (See Appendix A for maps of each basin).

1. Archer Wild River in April 2009
2. Stewart Wild River in April 2009
3. Lockhart Wild River in April 2009
4. Wenlock River in June 2010

In March 2009, Premier Anna Bligh made a commitment to consider three river systems in western Queensland for nomination as wild rivers under the *Wild Rivers Act 2005* (Qld). These are the Georgina and Diamantina River Basins, along with the Cooper Creek Basin. Collectively, they are known as the Lake Eyre Basin Rivers. The possible nomination and protection of these waterways is expected to occur in 2010- 2011.⁷ Figure 1 below shows a further nine basins proposed for nomination within CYP.

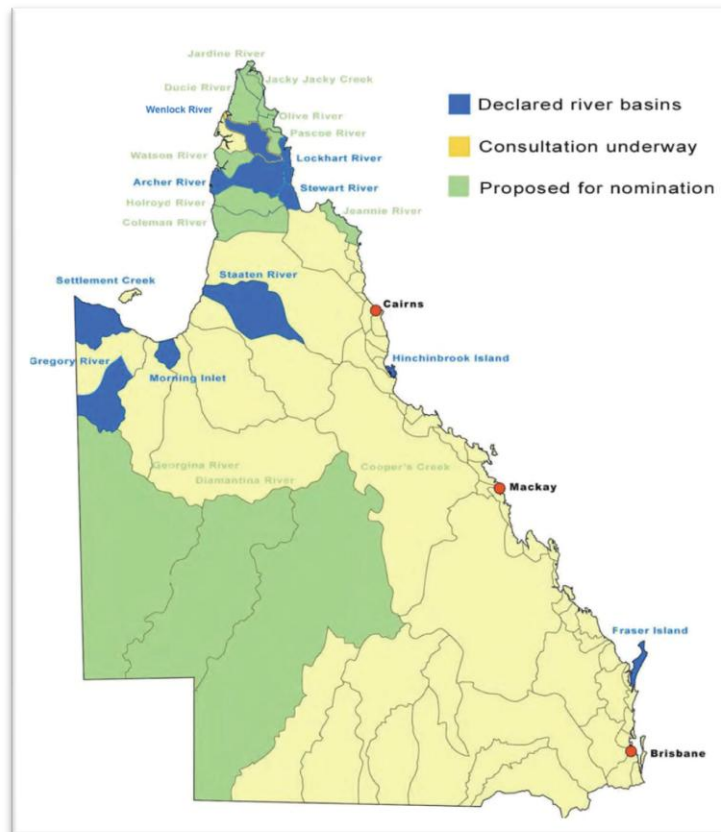


Figure 1: Wild Rivers Areas within Queensland
Source: The Wilderness Society submission to the Senate Inquiry

⁷

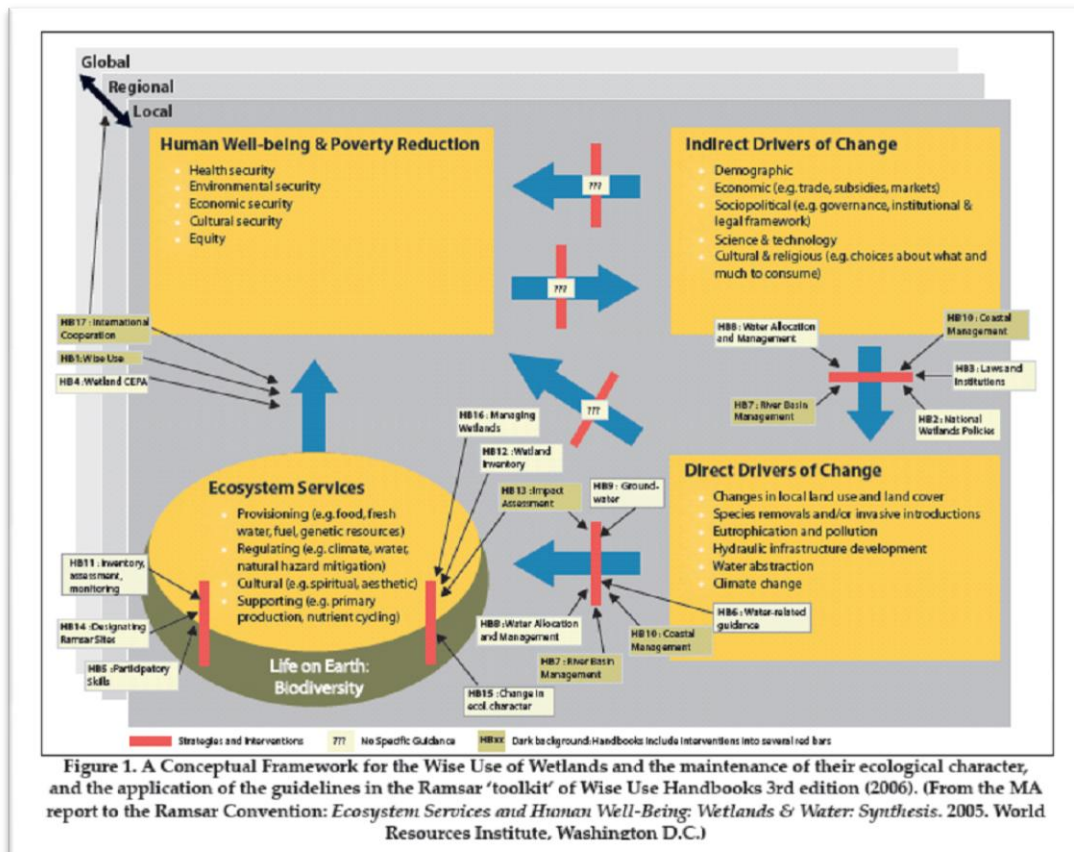
In March 2010, the department released a Lake Eyre Basin Wild Rivers Policy Consultation Paper. Submissions on the policy consultation paper closed on 28 May 2010. Formal nomination documents which are scheduled to be released for comment in the second half of 2010. Once these documents are publicly released, the formal consultation period commences. The Act requires a minimum of 20 business days for consultation; however, the period normally lasts around four months.



2 What level of use is “sustainable” in CYP?

The DERM defines sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their needs.”

Figure 1 below illustrates the conceptual framework for ecosystems and human well-being developed by World Resources Institute in Washington DC. It links the indirect and direct drivers of change with biodiversity, ecosystems and their services and then with human well-being and poverty reduction.



In addition to including large tracts of Indigenous land, Cape York Peninsula has significant conservation potential. Over 80% of the Peninsula has been identified as having natural conservation significance for at least one natural heritage attribute. In 1995, the *Cape York Peninsula Land Use Study* argues that Cape York Peninsula is unique, at least in Australia, in containing continuous areas of high and very high wilderness quality that encapsulates large areas of rainforest, open woodland, woodland, tall open forest, closed forest, heaths, riparian vegetation, coastal wetlands and freshwater wetlands.⁸

Clearly, sustainable development on the Peninsula has to include recognition of its conservation potential and the moral and legal rights of traditional owners of land.

For development to be sustainable land must be used wisely, where “wise use” is defined as [in the context of wetlands]:

“sustainable utilization of [wetland] resources in such a way as to benefit the human community while maintaining their potential to meet the needs and aspirations of future

⁸ NWI (1994) and AUSLIG (1990).



generations. This means ensuring that activities which might affect wetlands will not lead to the loss of biodiversity or diminish the many ecological, hydrological, cultural or social values of wetlands.”⁹

In implementing such a framework (ie. in managing the use of land) in the current context, it is important that the most recent scientific and cultural evidence about the impact of particular activities on the environment and the people who inhabit it is used, in determining whether a particular activity (or development) is in fact sustainable. The purpose of *Sustainable Planning Act 2009* (SPA) is to achieve “ecological sustainability”. To the extent that other statutes or instruments relevant to land management are often more limited in their purpose, or narrow in their focus, section 12 of the SPA notes that:

“If a word in a planning instrument has a meaning that is inconsistent with the meaning of the same word in this Act, the meaning of the word in this Act prevails to the extent of the inconsistency.”

This report focuses on the extent to which sustainable development is impeded by the Wild Rivers legislation. The theory and empirical evidence around development and productivity in general is also of relevance. Crossman (2000) states:¹⁰

“There is also a broad international consensus among economists and economic policy advisers of the factors that are conducive to economic development (the capacity of an economy to respond positively to changing circumstances) and economic growth (increased output). These factors are based on theoretical understanding, supported by empirical evidence.”

The factors to which the above quote refers include:

- Well-balanced macroeconomic settings (which are limited at the State level);
- Market-aware microeconomic policies which encourage, and **remove impediments** to, wealth-generating entrepreneurial, innovative behaviour by firms and individuals;
- Adoption of policies which foster a **supportive institutional framework**; and
- A focus by government on ensuring **efficient and effective provision of appropriate, client-focussed services**, including education and training, and **infrastructure services**.

Certainty and consistency in the application of policy is also understood to be a critical factor attracting investment. Arbitrary and inconstant policy increases risk and raises the required rate of return on investment.

The OECD notes that competition is of fundamental importance to productivity growth, with strong links between openness of trade, growth in exports and productivity and the diffusion of technology.¹¹

In addition, in assessing whether an appropriate balance between human well-being and environmental protection is met, it is necessary to consider both:

1. the current level of well-being of inhabitants;
2. the cumulative impact of various statutes and/or instruments regulating land use;
3. the cumulative impact of declaring multiple areas for protection.

⁹ This principle was first outlined in Article 3.1 of the Ramsar Convention (to which the Commonwealth Government is a signatory).

¹⁰ Peter Crossman at the time of writing was Assistant Under Treasurer and Government Statistician, Office of Economic and Statistical Research, Queensland Treasury.

¹¹ OECD (1999)



Interestingly, within the United States, only one quarter of one percent of rivers are designated wild river areas under the Wild and Scenic Rivers Act 1968.¹² In Canada, the total size of the system is currently approximately 11,000 km; however, there are no activities that are specifically prohibited on Canadian Heritage Rivers, as the program is not legislative, but voluntary.¹³ Within NSW, wild rivers are declared within areas currently reserved and managed for nature conservation purposes under the *National Parks and Wildlife Act 1974* (NPW Act), to ensure that the high conservation values of these rivers are maintained. They can also be used as focal points for a range of protection and rehabilitation works outside reserves. The NPW Act gives the Department of Environment, Climate Change and Water (formerly the Department of Environment and Climate Change) an advisory role where a statutory authority intends to conduct certain off-reserve activities such as carrying out of work, in, on, over or under that area, the subdivision of an area or the clearing of vegetation in that area. It states:

"A statutory authority shall not carry out development in relation to a wild river unless it has consulted with, and considered any advice given by, the Minister in relation to the development.(s.61A(2))"

The Department's *Framework for Wild River Assessment* (updated March 2007) notes that off-reserve actions that *might require a statutory authority to consult with DECC might include the building of dams and weirs or the construction of hydro-electric power stations upstream of wild rivers.*"¹⁴

2.1 Cape York Peninsula – Local and Regional Drivers

Cape York Peninsula is an area of land based on Indigenous boundaries which lies to the north of Daintree, and extends west to the Gulf of Carpentaria. It encompasses 13 Statistical Local Areas (SLAs) within the Far North Statistical Subdivision Balance, and has a combined ERP (2009 provisional) of 14,437, accounting for approximately 0.3% of the total Queensland population.¹⁵ The average annual growth rate for 5-year period to 2009 was 1.8% pa, compared with 2.7% pa for

¹² Section 13 (b) of this Act states that "Under the provisions of this Act, any taking by the United States of a water right which is vested under either State or Federal law at the time such river is included in the national wild and scenic rivers system shall entitle the owner thereof to just compensation. Nothing in this act shall constitute an express or implied claim or denial on the part of the Federal Government as to exemption from State water laws."

¹³ However if a river is designated for natural values, and those values are impaired or lost (for example, a dam is constructed), the Canadian Heritage Rivers Board could then strip the designation and the river would no longer be a Canadian Heritage River. The same would hold true for the cultural values, if they were somehow impaired or lost. This has never happened. Management plans are written and monitoring takes place for the rivers in the system, so there is a reporting system in place that tracks the values for the rivers. The nomination/designation process is grassroots-based and therefore relies very heavily on community and certainly Aboriginal stakeholder support and consultation. It is also important to note that Canadian Heritage Rivers are not necessarily "wild", with several of them urban and some with impoundments. The latter are designated for their cultural values or role in Canadian history, rather than natural values.

¹⁴ Note that the declaration of wild rivers does not expand the existing advisory role of DECC, since DECC already has an advisory role where a development may affect a reserve, including any rivers within the reserve. Provisions within the Environmental Planning and Assessment Act 1979 and the Environmental Planning and Assessment Regulations ensure that DECC is alerted to such proposals.

¹⁵ SLAs include: Aurukun (S), Cook (S), Hope Vale (S), Kowanyama (S), Lockhart River (S), Mapoon (S), Napranum (S), Weipa (T), Northern Peninsula Area (R) -Injoo, Northern Peninsula Area (R)- New Mapoon, Northern Peninsula Area (R) – Umagico, Pormpuraaw (S), Wujai Wujai (S). There are 42 SLAs in total in the statistical subdivision Far North SD Balance. Source: ABS Regional Population Growth, Australia, Catalogue Number 3218.0 and a Concordance File of 2009 SLA to 2006 Indigenous Region (IREG).



Far North SD and 2.6% pa for Queensland. The Indigenous population on CYP is estimated to grow at approximately 1.9%pa to 2021, (ie. such that the Indigenous population will approximately double between 2001 and 2051).¹⁶ The Indigenous population of Australia is projected to grow by 2.2% per year between 2006 and 2021, compared with an annual growth rate of between 1.2% and 1.7% per year for the total Australian population.¹⁷

¹⁶ This growth rate is based on the ABS's Series B estimates, whereby Indigenous life expectancy at birth increases by five years, reaching 72.1 years for males and 77.8 years for females by 2021 (from 67.1 years for males and 72.8 years for females in 2006. These estimates are consistent with Taylor et al (2000).

¹⁷ ABS, Media Release, *Australia's Indigenous population to exceed 700,000 by 2021*, 62/2009. By 2016, Queensland is projected to overtake New South Wales as the state with the largest Indigenous population in Australia.



Table 1: Indigenous Status (INGP) - Persons, Place of Usual Residence, 2006 Census^a

Indigenous Area (IARE)	Non-indigenous	Aboriginal	Torres Strait Islander	Both Aboriginal and Torres Strait Islander	Not Stated	Total Population
Injinoo (S)	6	64	57	279	9	415
New Mapoon (S)	20	113	24	181	5	343
Napranum (S)	52	436	97	245	9	839
Aurukun (S)	64	933	6	19	26	1,048
Pormpuraaw (S)	60	498	13	27	0	598
Kowanyama (S)	66	925	9	13	11	1,024
Wujal Wujal (S)	18	295	0	9	3	325
Hope Vale (S)	43	698	0	29	12	782
Lockhart River (S)	50	408	16	63	13	550
Mapoon (S)	22	131	6	81	0	240
Umagico (S)	0	32	47	149	3	231
Weipa (T)	2,109	223	120	137	239	2,828
Cook (S)	2,411	511	22	25	495	3,464
Total	4,921	5,267	417	1,257	825	12,687

Data Source: 2006 Census of Population and Housing

a Note that the ABS's post-enumeration census (released 15/9/09) which provides more accurate data for the Cape York Peninsula region was 7.5% higher (13,613) than the total figure of 12,687. The total indigenous population was 7,726 and the non-indigenous population was 5,887, such that the Indigenous population amounted to approximately 57% of the total CYP population.



Figure 2 below illustrates the various Indigenous areas within Cape York Peninsula. (See Appendix A for a more detailed map of CYP).

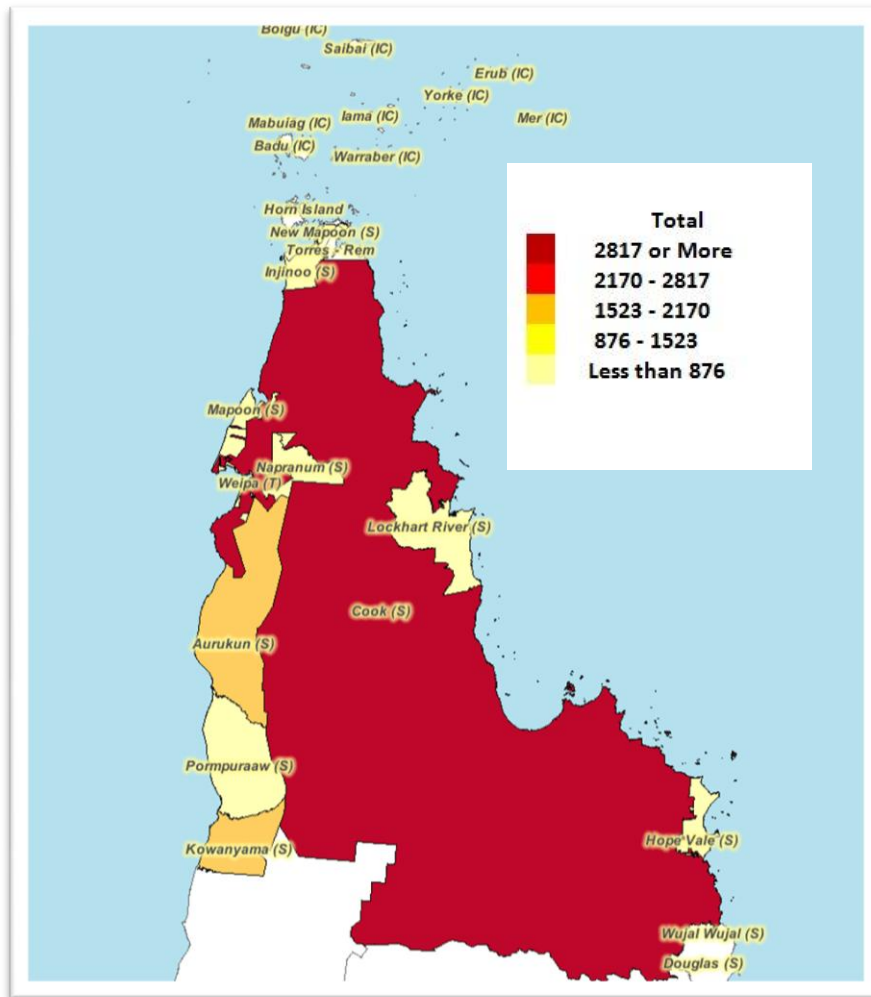


Figure 2: Indigenous Areas within Cape York Peninsula
Source: ABS CData On-line.

The rivers of Cape York Peninsula are culturally and ecologically important. As such, their cultural and conservation values are substantial. This is, in part, due to the relative intactness of cultural identity in the region and the rivers' exceptional health.

The average rainfall on CYP is high to very high; however, two factors affect the translation of this high rainfall into plant growth. Overall, temperatures are relatively high, leading to higher evaporation rates. The rainfall is strongly seasonal with most rain occurring in the summer months. This leads to a cycle over most of the area of a very strong summer growing season followed by drought.

This situation is modified on the east coast where the prevailing south east trade winds come up against coastlines at an angle to them and where there are higher mountain ranges causing sufficient winter rains to fall to sustain year round growth and development of rainforest vegetation such as in the McIlwraith Range area in the Peninsula and the area to the south of the Peninsula



around Cairns.¹⁸ The wet season is more regular and stronger (ie. longer) the further north, such that the length of the growing season varies between the northern parts of the Peninsula and the southern parts.

In addition, the river characteristics differ between regions, with short, steep and fast-flowing rivers in the smaller northern catchments and slow-flowing, meandering rivers in the larger southern catchments. As a result of these differing catchment characteristics, the annual flood events deposit levee and flood-plain soils of varying texture profiles and aerial extent. Broad expanses of fine-grained alluvial soils are more likely to occur in the south, whilst the northern river systems tend to produce less extensive, coarse textured levees and alluvial plains. In general, the alluvial soils are relatively fertile, by Australian standards, and possess few chemical limitations as a result of the regular erosion and deposition processes associated with the riverine landscapes.

The potentially productive alluvial soils often occur in a series of gently undulating, elevated terraces extending beyond the active, flood-prone riparian zones along the river banks. Soils occurring further away from the river at higher elevations or in poorly-drained "back-plains" often possess more clayey profiles and may be subject to chemical limitations such as alkalinity and/or salinity at depth.

Figure 3 illustrates the relatively high levels of average rainfall within CYP, and the variation across the peninsula.¹⁹

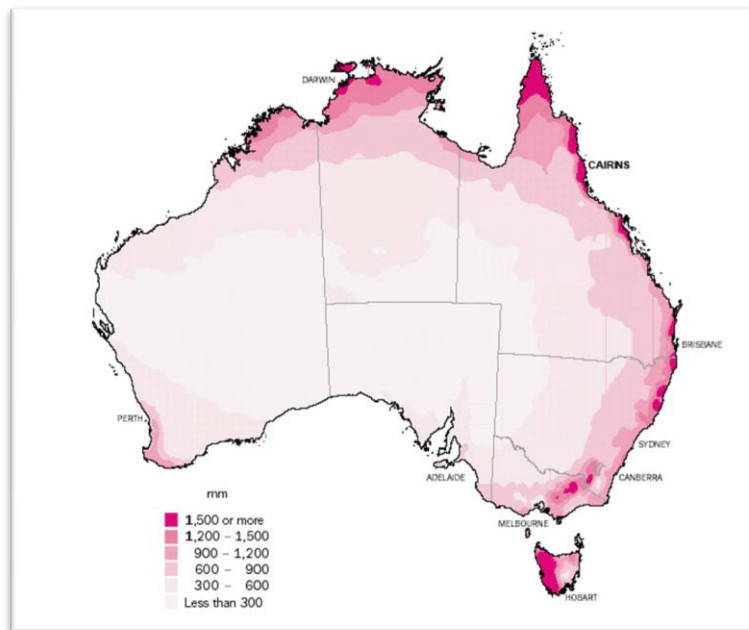


Figure 3: Australian Rainfall
Source: Bureau of Meteorology

Figure 4 below presents the mean annual runoff for Cape York Peninsula river basins, and compares this with other areas within Australia. It shows that north of the Mitchell River, the run-off along the west coast is twice that on the east coast (27.95 million ML compared with 11.4 million ML), such that the total run-off of 39.35 million ML represents 10.2% of the total run-off within Australia. If one adds to this rivers falling within the Far North SD (including the southern Gulf), an additional run-off

¹⁸ The Cairns district directly below CYP receives South East Trade Winds, which bring enough rainfall in the winter months to sustain year round growth. The northern Tablelands, northern Gulf and CYP experience an arid tropical climate in which rainfall in the May to December period is insufficient to meet the evaporative demand of pastures or crops.

¹⁹ Note that the scale used to measure high and low rainfall is a global in nature. This discussion and map are taken from and based on further discussion with Cummings (2010).



of 66.1 million ML brings the percentage of Australia's total run-off within the Peninsula to 27.2%. By comparison, Tasmania and New South Wales each account for 12%, Victoria 5% and the Burdekin basin 2% of Australia's total run-off.

Mean Annual Runoff Cape River Basins Compared		
Million Megalitres		
<u>East Coast</u>	Jacky Jacky	2.35
	Olive/Pascoe	3.22
	Lockhart	1.99
	Stewart	1.05
	Normanby	2.50
	Jeannie	1.18
	Endeavour	1.61
Total East Coast	11.40	
<u>West Coast</u>	Jardine	2.50
	Ducie	4.05
	Wenlock	3.69
	Enibley	2.49
	Watson	2.63
	Archer	7.01
	Holroyd	4.04
	Coleman	1.54
Total West Coast	27.95	
Total Cape	39.35	10.2%
Remainder Peninsula Australia	66.09	17.1%
Total Peninsula Australia	105.44	27.2%
Total Australia	387.18	100.0%
cf :	Tasmania	44.8
	New South Wales	42.0
	Victoria	20.2
	Murray Darling Basin	23.85
	Mitchell Basin Queensland *	22.95
	Burdekin Basin Queensland	8.17
	Ord Basin, Western Australia	4.70

* Note: Mitchell Basin Queensland is counted as part of Remainder Peninsula Australia and is not counted in the Cape area.
Source: National Land and Water Resource Atlas.

Figure 4: Mean Annual Runoff Cape River Basins Compared
Source: National Land and Water Resource Atlas (cited Cummings (2010))

The Net Primary Productivity (NPP) measure captures the degree to which carbon is taken out of the atmosphere for plant growth, and as such reflects the impact of both rainfall and temperature on the potential for agricultural productivity.²⁰ Figure 5 illustrates that the Peninsula region is similar in productivity to Peninsula India and Victoria. As will become evident later in this report, the importance of this data is that it demonstrates that there is **considerable productive potential** within some parts of the Peninsula.²¹

²⁰ Plant growth (ie. agricultural productivity) depends on available water (ie. rainfall) and temperatures. Warmer areas are challenged by higher evaporation, while colder areas (eg. southern Australia) are challenged by low temperature months, but face fewer evaporation problems.

²¹ For example, production in Tamil Nadu on the Indian Peninsula (with similar area, temperature and rainfall to Cape York) in 2005-06 was 52.6 million tonnes across 27 different crops. Sourced from Government of Tamil Nadu, Department of Economics and Statistics, Season & Crop Report, 2005-06. Note this information was submitted by Bill Cummings to the recent Senate Inquiry.

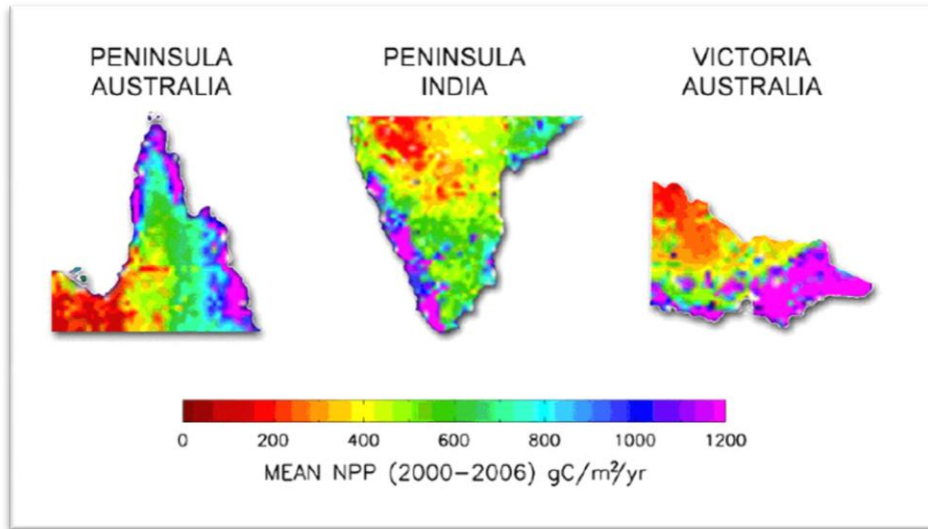


Figure 5: Net Primary Productivity, Peninsula Australia, Peninsula India and Victoria

Source: University of Montana, College of Forestry, Numerical Terradynamic Simulation Group (NTSG) based on data from the Moderate Resolution Imaging Spectroradiometer (MODIS) on the Terra and Aqua Satellite Platforms Launched December 1999 and May 2002. (cited Cummings, B. (2010))

The Cape York Peninsula Land Use Study (CYPLUS) undertaken in 1997 supports the above conclusion. It provides an assessment of the topography, climate and soils that are capable of supporting cropping. Highly suitable land refers to land with negligible or minor limitations (ie. class 1 or 2). Suitable land has moderate limitations which either reduce production or require more than those management practices of highly suitable land to maintain production (ie. class 3). Marginal land is presently considered unsuitable due to severe limitations and unsuitable land has extreme limitations that preclude its use. Table 2 list the findings of the CYPLUS.

Table 2: Findings of the Cape York Peninsular Land Use Study (ha)				
Activity	Highly Suitable Land (Class 1 & 2)	Suitable (Class 3)	Marginal (Class 4)	Total
Horticulture and broadacre cropping	3,780,000	4,530,000	1,008,000	9,318,000
Irrigated horticultural tree crops	3,756,700	2,834,000	1,615,000	8,205,700
Soils with potential for maize and sorghum	856,000	3,505,000	1,625,000	5,986,000
Irrigated sugar and tea tree	1,554,000	4,184,000	456,000	6,194,000
Dryland sugar and cassava	38,000	1,325,000	4,574,000	5,937,000
Paddy Rice	0	1,199,000	92,000	1,291,000
Dryland peanuts	245,000	2,140,000	1,426,000	3,811,000
Irrigated peanuts and winter horticultural row crops	922,000	2,277,500	807,500	4,007,000

Source: Department of Primary Industries, Queensland Department of Natural Resources, 1997.

Note that the assessment did not consider limitations imposed by other land uses and tenure. It is simply an assessment of the topography, climate and soils that are capable of supporting cropping.



Development options *that* would most suit Indigenous involvement (ie. either land or labour) are most likely to be cottage industries.²² Products *that* would work well in parts of CYP, *that* are also highly sought after overseas include:

- Casava
 - Extensively cultivated as an annual crop in tropical and subtropical regions for its edible starchy tuberous root. It is the third largest source of carbohydrates for meals in the world. It can serve as either a subsistence or a cash crop.
- Betel nut (Areca nut)
 - Grows in much of the tropical Pacific, Asia and parts of east Africa. It is often chewed wrapped in betel leaves. It is not a true nut, but rather a drupe and is commercially available in dried, cured and fresh forms. They are chewed with betel leaf for their effects as a mild stimulant.²³
- Dianella atraxis
 - Highly sort after garden specimen in the UK and Southern California for their ornamental properties. A rare plant from northern Queensland and very robust in Australia. A tufty plant with small blue flowers followed by 1cm dark purple berries. Leaves are strap-like, weeping, to 80 centimetres. The leaf stalk reaches above the foliage.
- Bamboo
 - Grown in East Asia and South East Asia, bamboos are of notable economic and cultural significance, being used for building materials, as a food source and as a versatile raw product. They have a relatively brief life which means culms are ready for harvest and suitable for use in construction within 3-7 years.

A range of Asian foods could be cultivated to reach the Asian markets lying to the north, rather than growing crops *that* are less suited to the area and for which there is little competitive advantage.

The CYPLUS also provided rough assessments for potential herd numbers based on unimproved and improved carrying capacity. In the former, carrying capacity varied from 1 head to 8 ha down to 1 head to 250 ha. For the latter (assuming 4.7m ha of improved pasture), carrying capacity improved up to 1 head per 3 hectares, with the lowest carrying capacity remaining at 1 head to 250 hectares. Based on this rough assessment, potential herd numbers for unimproved pasture were 477,000 head over 13.8million ha and for improved pastures, 930,000 head over 13.8 million ha.²⁴

Different climatic conditions, landscapes and soils therefore necessitate different regimes of land use (ie. different uses of resources) in order to achieve “ecological sustainability”.²⁵ When assessing what is a “sustainable” use of resources in the far north Queensland region (and in particular CYP), the geographic and climatic differences are such that three separate areas can be identified:²⁶

1. Northern Cape York Peninsula
2. Southern Cape York Peninsula
3. Gulf

²² An industry where the creation of products and services is home-based, rather than factory-based.

²³ The effect of chewing betel and the nut is relatively mild and could be compared to drinking a cup of coffee.

²⁴ Note that the CYPLUS did not take into account limitations imposed by other land uses and tenure.

²⁵ For example, in England, cold temperature, rather than water shortages, will affect growing seasons and productivity. In Europe, farmers till the soil to let sun on it. In the tropics, water is kept on the soil to extend the growing season.

²⁶ Based on personal communication with Mr Jeff Benjamin, a water resource expert, within the CYP region.



The **main challenge for resource use within this region is to maintain perennial flows** by using water from the high seasonal peak periods (approximately 80% of water flows during this period). This necessitates determining what percentage of water can be sustainably stored for use in dryer months.

2.2 Case Study – Biodiesel Fuel from Pongamia (Milletia) Tree Seeds²⁷

Two years ago, the seven clans within Lockhart River signed a lease (profit à prendre) with Evergreen Fuels to utilise 5,000 to 6,000 hectares of land, grow Pongamia trees, and harvest their seeds for oil (seeds contain 27 -42% oil) in order to produce biodiesel fuel.²⁸ This section case studies this particular development in order to demonstrate that, contrary to the State Government's assertions, sustainable development opportunities are prohibited or impeded by the *Wild Rivers Act 2005*.

Pongamia trees are ideally suited to the climatic conditions of CYP.²⁹ They are a leguminous tree that grows to approximately 25 metres, with tap roots extending as far as 10 metres. The Lockhart River region lies 1.5 metres above sea level. When the tap roots grow the trees are able to tap into a water source which will sustain them for their 80 year life. Combined with the very high rainfall within the region, there is no need for irrigation.

Prohibitions and/or restrictions on irrigation are one of the main ways in which business opportunities are rendered unviable within declared wild river areas, however, such prohibitions/restrictions are clearly not relevant in this case. Rather, it is the prohibition on development activities within a 1 km buffer of a wild river and its nominated waterways that would prevent this business opportunity, due to the close proximity of the rivers within this particular region, which makes for very little land outside of a buffer zone. Therefore, as a new development, this sustainable development opportunity would be precluded by the wild rivers declaration. However, as an *existing* business, Evergreen Fuels will be able to continue to grow and employ Indigenous workers for many years,

²⁷ *Milletia pinnata* is a species of tree in the pea family, [Fabaceae](#), which is native to southern Asia. It is often known by the synonym [Pongamia pinnata](#) as it was moved to the genus [Milletia](#) only recently. Common names include Indian Beech Tree, Honge Tree, Pongam Tree, *Honge* ([Kannada](#)), *Pungai* ([Tamil](#)), and *Naktamāla* ([Sanskrit](#)). Research has also been put into using the material leftover from the oil extraction as a feed supplement for cattle, sheep and poultry as this byproduct contains up to 30% protein. There is also research indicating that *M. pinnata* can be used as a natural insecticide.

²⁸ A profit à prendre is a right to take from the land owned by another person part of the natural produce grown on that land or part of the soil, earth or rock comprising the land. Research has also been put into using the material leftover from the oil extraction as a feed supplement for cattle, sheep and poultry as this byproduct contains up to 30% protein. There is also research indicating that *M. pinnata* can be used as a natural insecticide.

²⁹ The tree grows naturally in CYP, as well as through much of arid India. It is one of the few crops well-suited to commercialisation by India's large population of rural poor. Several unelectrified villages have recently used the honge oil, simple processing techniques, and diesel generators to create their own grid systems to run water pumps and electric lighting.

In 2003 the Himalayan Institute of Yoga Science and Philosophy, as part of its Biofuel Rural Development Initiative, started a campaign of education and public awareness to rural farmers about *M. pinnata* in two Indian states. One of the Himalayan Institute's partners developed a consistently high yield scion that reduced the time it takes to mature from 10 years to as little as three. To help the farmers in the transition from traditional crops to *M. pinnata* the Indian government has contributed over \$30 million in low-interest loans and donated 4.5 million kg (5,000 short tons) of rice to sustain impoverished drought-stricken farmers until the trees begin to produce income. Since the project began in 2003 over 20 million trees have been planted and 45,000 farmers are now involved.



bringing with that all the benefits that come with learning and the satisfaction of having meaningful work, as well as wealth creation for each of the clans.

The business, which cost about half a million dollars to establish, is sustainable on many levels. The Pongamia trees add value to the bio-diesel fuel business in the form of carbon credits, with carbon dioxide produced as an emission and plants taking it back in at night and providing oil to make fuel with tomorrow. Pongamia trees are one of a few *legumes that put nitrogen back into the soil*.³⁰ They can be cultivated from seedlings or direct planted from seeds. Cropping of pods and single almond sized seeds can occur by 2-3 years. The tree is well suited to intense heat and sunlight. They are also a successful host plant for Sandalwood trees. (Sandalwood timber grown in Australia is one of the best in the world, commanding a high price for its use in soaps, incense and lotions.) Preference is given to the employment of Indigenous workers, with the lease agreement providing for part of the returns to be distributed equally to all seven clans from day one, despite the obvious need for staged development and differing amounts of each clan's land used. This is an important element of 'sustainability' which is often over-looked by some who focus more on the environment.

The processing of seeds, which takes eight days (ie. washing and settling to turn the oil into fuel) is a substitute for non-renewable energy sources such as oil and electricity. The production process which is based on a settling process (by gravity) is very energy efficient, with 3.4 units of energy for every 1 unit of energy input, in contrast to a lot of other biodiesel plants which use a continuous process (by centrifugation) which relies on more fuel input. The other raw material is second-hand cooking oil. The plant produces about 20,000 litres of biodiesel fuel every week, with profits generated at quite low levels of output. It costs about \$1 a litre to make the biodiesel. Quality is believed to be superior to normal diesel, with customers noting that rather than burning 7 litres an hour, they burn 5.5 litres per hour, with machinery revving cleaner, quieter to run with no smoke. Quality depends on removing all the oils and fatty acids in the fuel and drying the oil so that there is not much water left in it.

The bio-diesel fuel industry in CYP is approximately 90 million litres, with major buyers including mines, power stations and consumers. Costs are contained by the regional nature of supply and demand, saving on transport costs associated with substitute products. Studies by the Federal Government on bio-diesel fuels to date have used an average oil price of between \$36 and \$38 a barrel. However, Evergreen Fuels believes that their product is commercial as long as oil remains above \$20 a barrel. This is not unrealistic given supplies and the dwindling availability of Australian oil. Bio-diesel fuel is eligible for the fuel tax credits (38.2c per litre) provided it meets government standards.

Rather than imposing blanket prohibitions, this case study demonstrates that legislation which considers the relative impacts on the environment, as well as the economic and social benefits to be had from a particular development, will give rise to better outcomes for all stakeholders.

³⁰ The dense shade it provides slows the evaporation of surface water and its root nodules promote nitrogen fixation, a symbiotic process by which gaseous nitrogen (N₂) from the air is converted into ammonium (NH₄⁺, a form of nitrogen available to the plant).



3 Wild Rivers Legislation and Water Resource Planning

Section 967 *Water Act 2000* deals with approvals for development under *Sustainable Planning Act 2009* and notes that a person must not take or interfere with the water until the person has obtained the development permit. Under s967 (4)(c) the chief executive may refuse to consent if *"the works for which the permit is required would not be in accordance with a moratorium notice, water resource plan or wild river declaration for the part of the State for which the permit is required."*

Wild Rivers Legislation is fundamentally linked to water resource planning, since it is one of the main mechanisms for regulating the use of water so as to ensure that the impact of development on river flows and river health are minimised. Due to the fact that there have not been WRPs undertaken for CYP, this section instead relies on information publicly available for Water Resource Plans (WRPs) undertaken for the Mitchell River Basin plan area and the Gulf WRP area. While they relate to different plan areas, they are sufficiently related to provide useful insights into the process and underlying premises of water resource planning within CYP.

The Mitchell River Basin plan area is approximately 70,000 km² with an average annual discharge of 12 million ML per annum, while the Gulf plan area encompasses an area of 315,000 km² with an average annual discharge of 23 million ML per annum. The Department of Environment and Resource Management (formerly Natural Resources and Water), *Gulf Water Resource Plan Consultation Report, January 2008 (Gulf WRP consultation report)* notes that reserves and existing entitlements amount to less than 1.5% of the total annual discharge to the Gulf of Carpentaria, and while no specific figure is provided in the Mitchell plan area, the SRC understands that it is comparable or less than this percentage.³¹

The following reasons are provided in the plan as justification for these low percentages:

- *"Support for non-consumptive uses and security ("reserves ...are appropriate for their respective economic activities and the communities reliant on them – including declared wild river areas");*
- *Under-use is attributed to lack of markets or distance from markets for production to be viable;*
- *Some entitlements are too small to support viable production."*

While reserves are set as an upper boundary for accommodating projected growth, the plan notes that should new economically viable and ecologically sustainable water demands emerge that cannot be met through provisions of the WRP, the Minister may consider amending or reviewing the WRP.

Based on research undertaken by the SRC, it appears that a higher percentage of water take could be sustainable within the southern parts of the Peninsula and gulf regions. Mr Jeff Benjamin, a resource management consultant with over 28 years experience in the region, argues that:

"If we could harvest just 10% of water that ran into the Gulf, we could have a thriving agricultural industry based on the alluvial plains. Within the northern part of the Cape (eg. around "Batavia Downs", "York Downs" and "Merluna"), there are quite productive areas, but it's possible that water extraction of much less than 10% may be adequate to meet the development demands of the economically available soil on which to use it."³²

³¹ Note that the effects within certain basins within the plan area may differ.

³² The consultation report for the Gulf WRP noted that some graziers had suggested that the sustainable take could be as high as 30%, against which Mr Benjamin's (a water resource expert) estimate could be considered as relatively conservative.

Note that the DECC's *Framework for Wild River Assessment* (updated March 2007) states that there is no widely available means of estimating a river's natural flow and the degree of alternation since European



The purpose of the *Wild Rivers Act 2005* is stated in s3 as follows:

1. *The purpose of this Act is to preserve the natural values of rivers that have all, or almost all, of their natural values intact.*
2. *The purpose is to be achieved mainly by establishing a framework that includes the declaration of wild river areas that will or may include the following:*
 - a. *High preservation areas;*
 - b. *Preservation areas; and*
 - c. *Floodplain management areas; and*
 - d. *Sub-artesian management areas.*
3. *Through the framework mentioned in subsection (2), this Act and other Acts achieve the purpose mentioned in subsection (1) by:*
 - a. *Providing for the regulation of particular activities and taking of natural resources in a wild river and its catchment to preserve the wild river's natural values; and*
 - b. *Having a precautionary approach to minimise adverse effects on known natural values and reduce the possibility of adversely affecting poorly understood ecological functions; and*
 - c. *Treating a wild river and its catchment as a single entity, linking the condition of the river to the health of the catchment; and*
 - d. *Considering the effect of individual activities and taking of natural resources on a wild river's natural values; and*
 - e. *Considering the cumulative effect of activities and taking of natural resources affecting a wild river area when further activities or taking are proposed; and*
 - f. *If a wild river crosses a State border – working with the other State to encourage preservation of the wild river's natural values in the other State.*

In meeting this purpose, wild river declarations prohibit or place restrictions on activities within certain areas of declared basins.³³ When developing a water resource plan, the Minister has a statutory obligation under the *Water Act 2000* s.47 to consider the state's future water requirements, including cultural, economic, environmental and social requirements, and cultural, economic and social values. Economic and social assessment reports are an important component of these plans, with the results of these included in the water resource plan consultation reports.

occupation. Thresholds of what is deemed to be an acceptable level of alternation to river flow are established on a case-by-case basis. Factors to consider may include:

- River flow data monitored for long periods, both pre- and post-disturbance (in most cases flow data are patchy and insufficient for reliable flow modelling);
- Proportion of flow that is licensed for extraction and the potential effect on seasonal flow regimes; and
- Coarse indicators of river flow alterations including the presence of dams or weirs and alterations of land use in the catchment.

These primary factors are considered to be the most reliable indicators of biological, geomorphic and hydrological condition currently available with existing resources. Other factors include land use on the banks of the rivers or the extent of clearing in the catchment.

³³ Schedule 1 of the Sustainable Planning Act 2009 lists prohibited development. Approximately 80% of all prohibited development relates to Wild River Areas.



An economic and social assessment involves analysis of a range of factors including:

- demographic statistics (population size and projected growth; age, family type; dwellings; labour force participation, household income; education);
- employment, by basin, by economic sector.

As discussed in the SRC's 2009 report *Wild Rivers Legislation – Likely Impact on Indigenous Well-Being*, there is a much greater proportion of the Indigenous population living within CYP relative to the non-Indigenous population (24% compared with 2%). As such, the SRC is of the view that the level of their “well-being”, which is fundamentally related to the level of economic development, has not been adequately considered.

In assessing “future requirements”, for the purpose of the WRP, future demand is based on a set of “existing constraints” which act to limit both the current level of development, and future prospects for development. For example, the Gulf WRP Consultation Report states:

“...needed to balance likely consumptive water requirements with measures supportive of a relatively high proportion of economic activity generated by non-consumptive uses...Generally, this indicated

that future demand would be consistent with existing usage patterns that had evolved to reflect the localised opportunities offered by land and water resources. This indicated that the unallocated water reserves should be structured to support economic growth based on these existing patterns.”³⁴

Such constraints include a range of both physical and social infrastructure:

- road access;
- port access;
- access to a national (or major) electricity grid;
- local and regional labour supply.

The WRP consultation plan notes that while WRPs may provide an indication that water can be made available to support construction of infrastructure, they do not endorse specific projects, with this evident in the following extract:

*“The planning and approval process that must be met before projects can go ahead are dealt with under separate legislation – the Integrated Planning Act 1997 [Sustainable Planning Act 2009]. **Environmental aspects must clear all relevant state and federal legislative obligations....Moreover, current government guidelines require any new water infrastructure that is built to be economically viable.** This means that water uses must be able to **generate sufficient revenue** to cover the cost of building, operating and maintaining new infrastructure.”*

This raises several important issues. Firstly, to the extent that the wild rivers legislation (and all relevant legislative obligations) impedes development, the possible revenues from infrastructure use (in the future) will be relatively lower. Secondly, if infrastructure needs to be economically viable, this will have important consequences for building major infrastructure at an optimal capacity, raising questions about the time period used to assess whether revenue flows are sufficient and the role that infrastructure is intended to play in encouraging development. Good

³⁴

Consumptive demands occur when use leads to a reduction in water quantity and/or quality. The main consumptive users include irrigation and aquaculture farmers, miners, and urban settlements. People can also benefit from water resources while preserving quality and quantity. Important non consumptive users include the commercial fishing industry (owing to the importance of water resources for fish habitats), nature based tourism including recreational fishing and Indigenous communities that have close social and cultural ties to the land and water resources of the plan area.



government should facilitate a desirable level of sustainable development in order to meet the economic and social needs of communities within particular regions. This will involve some risk-taking by government, who must balance the need to ensure that infrastructure spending is both equitable and appropriate in terms of facilitating growth.³⁵ When undertaking cost-benefit studies in order to assist decision making about the nature and size of necessary infrastructure, it is imperative that “underlying premises” (eg. existing constraints) do not prevent such analyses from measuring potential benefits accurately. For example, if WRPs are based on 10 year horizons, while infrastructure assets have much longer useful lives, the chances of having viable infrastructure proposals are much lower. It is also important that all (eg. non-revenue) benefits are taken into account when assessing whether major infrastructure is desirable. Where costs still outweigh the benefits, there may be reasons for government subsidisation (eg. addressing economic disadvantage).

The disconnect with sustainability is further evident in the following statement, again from the *Gulf WRP Consultation Report*:

*“Irrespective of the relative development levels throughout the plan area, under the ROP [Resource Operating Plan] the **take of water will be managed to mimic or maintain natural flow patterns** – for example, **by protecting dry season low flows.**”³⁶*

The SRC understands that environmental reasons why some rivers are best left dry in the winter months are insufficient to negate outright the need to also consider and measure the prospective economic benefits which could be derived from doing otherwise. Therefore, the relevant question is why greater emphasis is not placed on identifying, and where possible, measuring the economic benefits to be derived from managing resource use via water storage and water harvesting for use during the dry seasons. Based on the underlying premises highlighted in this report, the DERM’s *modus operandi* (through the *Wild Rivers Act 2005*) appears to disregard this need.

In relation to overland flow works, the plan consultation report states:

“While there is relatively little overland flow development in the plan area, its regulation will allow landholders equitable access to the resource while ensuring that unchecked growth does not compromise the security of existing water uses or broader plan goals.”

However it does not define what constitutes “equitable access”, nor does it make clear why some of the water that simply runs out to sea cannot be harvested to be utilised for dry-season irrigation. Landowners noted that it is more costly and impracticable to build “in-stream” storages, as these must be designed to withstand regular; and often severe flood events and would be subject to flood damage and erosion. They would prefer instead to harvest water by pumping a minimal percentage of the passing flood-flows into “off-stream” storages for use on crops after the “wet”. Alternatively, a dam may be constructed (the Queensland Government has investigated several sites over the last few decades), to allow water to be released for “run-of-river” pumping by

³⁵ Note that it is too simplistic to argue that equity is having infrastructure expenditure proportional to population size or projected population, since clearly, infrastructure and development are needed to attract population to a particular area in the first instance.

³⁶ The WRP in discussing the issue of sustainability noted that views differed between submissions, with:

- conservationists calling for capped entitlement levels and recommending neutral strategies supportive of non-consumptive uses such as ecotourism and fisheries;
- The agricultural community had mixed views, with some arguing a “bonus” take should be allowed in wetter years, while others with development interests believed that up to 30% of average annual flows could be accessed sustainably.
- Some expressed disappointment that provisions for dam construction in the future were not made, compromising jobs needed to keep young people in the region; and
- The mining industry were concerned that their industrial needs may need to be met from the general reserve if they did not qualify as projects of state or regional significance under the *State Development and Public Works Act 1971*.



landholders for irrigation during the dry months. In the case of the latter, the SRC believes that the issue of consent is also relevant.³⁷

The consultation report further states:

"Moreover, 'limited size' overland flow storages would be unlikely to support large scale commercial irrigation, lacking the reliability of water harvesting access and management arrangements."

It argues that by limiting the size for overland flow works to 250ML or less, it was *"intended to provide landholders with an equitable opportunity for modest enhancement of their existing activities."* However, little consideration is given to the fact that this rationale may disadvantage potential new entrants and thereby work against competition within the region. As noted earlier, competition is an important driver of productivity growth. In addition, graziers noted that this is, to some extent, tokenistic as after taking into account where such storages are allowed, they are often no longer viable propositions.³⁸

Finally, the following statement, again from this consultation report states:

"the size of allowable storages was derived by considering hydrological, ecological and other factors to establish a level that would provide land holders with equitable access to the resource without compromising WRP goals....Although extreme flooding is a key part of the regional water cycle, average rainfall and runoff are comparatively low and unlikely to support frequent filling of overland flow storages..."

While rainfall is relatively lower within the Gulf WRP area and the Mitchell catchment (see figure 2), evidence presented in section 2 of this report suggests that neither rainfall nor run-off within the CYP are comparatively low.³⁹ Instead, the challenge within this region is the degree of seasonality, and this necessitates a regime which must recognise the importance of water storage and water use during the dryer months.

³⁷ Water harvesting from streams into on-farm storages is preferred over vastly expensive "Govy" schemes (ie.. government-owned & operated infrastructure as opposed to private developments. Such schemes are usually top-heavy with bureaucracy & therefore cost of water is higher than privately-owned irrigation schemes). This is particularly so when one considers the cost of the spillway facilities required to pass the regular flood flows safely through on-stream dams. While farm-scale off-stream storage infrastructure is quite common on the Darling Downs & south-west Queensland (ranging in size from 200 ML to 4000 ML), there are very few similar water-harvesting projects have been constructed in far north Queensland.

Restricting the size of storages to 250ML effectively limits the irrigation development to about 30 ha, one crop per season enterprise. This small area of speciality crop may be viable, (strawberries or vegetables for example), but a very much larger area of grain or seed crops would required to pay-off the cost of the development. There are significant economies of scale with respect to farming infrastructure as well as water storage. There is little value in purchasing a shed-full of tractors & implements to use for only 3 months of the year on a small area.

³⁸ For example, growing crops in less fertile areas would require a lot of fertilizer, involve vegetation clearing and be able to meet slope specifications, all of which would work against viability.

³⁹ While rainfall and run-off are relatively lower for the Mitchell basin than for CYP, they are still relatively high by average standards, with all headwaters adjacent to the Atherton Tablelands. Over a long time period, a light rainfall year might occur once in every 6 years, a reasonably dry year once in every 14 years and a drought year once in every 20 years.



4 Resource Management and Development Approvals within Cape York Peninsula

Development within CYP and in particular, wild river areas, is regulated by many statutes, aimed at protecting the environment, and in particular the river systems, in order to protect ecosystem goods and services, including cultural and recreational values. These support the natural resource base of social and economic development.⁴⁰ This section addresses legislative factors which affect what development can occur within CYP. In particular, it explains the issue of land tenure and how the purpose of the lease influences development and the process for obtaining development approvals under the Integrated Development Assessment System (IDAS).

4.1 Land Tenure within Cape York Peninsula

By far the most common tenure within Cape York Peninsula is leasehold land, with these mostly pastoral leases.⁴¹ It is important to note that compared to the Gulf basin (where 4 wild river areas were declared in 2007), there is relatively more freehold land within CYP, with this largely aboriginal freehold land.⁴² Figure 2 shows the land tenure for Queensland, illustrating the predominance of leasehold land in rural and remote Queensland.⁴³

⁴⁰ Ecosystem goods include clean water; fish; prawns; crabs; turtles; water plants and water birds. Ecosystem services include water purification; tourism; recreation; flooding of pastures for grazing; medicinal resources and beauty.

⁴¹ Note that Aurukun is leasehold, but not pastoral leasehold. It was created from former reserves and leased to the Aurukun Shire Council for a 50 year period.

⁴² It is also interesting to note that Doomadgee, an Aboriginal settlement lying within the Gulf WRP area, was excluded from the Wild Rivers Act. While there has been less controversy over the declarations within the Gulf, largely due to the fact that there was consent by Indigenous groups, it is important to note the level of despair felt by non-Indigenous land owners subjected to the WRA 2005. Their small numbers mean that they lack the political constituency to oppose this legislation successfully. While the issue with aboriginal consent is important, there were in fact, no non-Indigenous owners who the SRC consulted who were “consenting” of the legislation.

⁴³ Approximately 85% of land in Queensland is leasehold, with 65% of these leases due for renewal within the next 5 years.

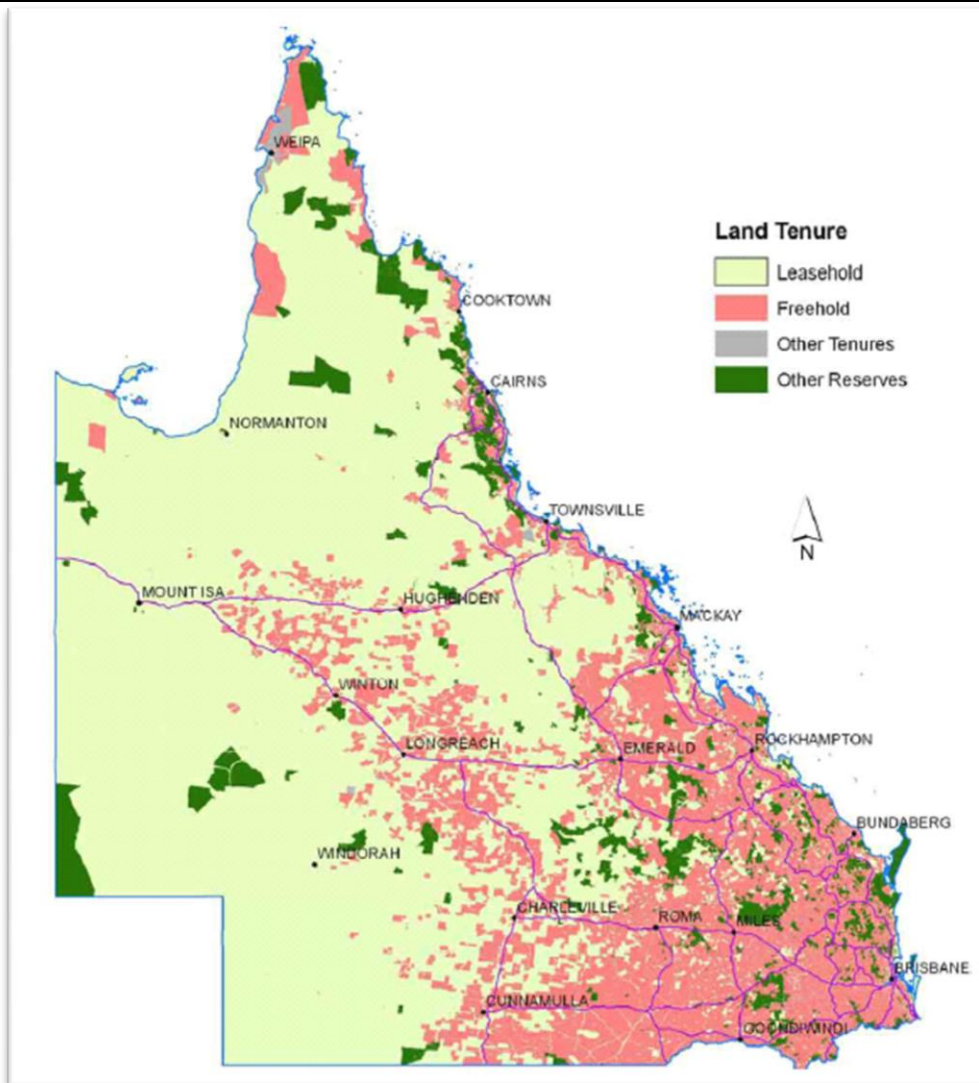


Figure 2: Queensland – Land Tenure 2005

Source: *The State of Queensland (Department of Natural Resources and Water) 2006.*

Typically, leasehold tenure *per se* is not an impediment to development, as under the provisions of the Land Act, the terms of the lease are for the life of the buildings or the life of the business.⁴⁴ Most leases are for 30 years. The lessee can apply for renewal or conversion of the lease.⁴⁵ Whereas normal freehold land can be sold or transferred, aboriginal freehold land cannot be sold or transferred. This ensures that the land will always remain with the Aboriginal owners. People can lease aboriginal freehold land.

However, constraints on development can occur with the purpose of the lease, rather than the nature of the tenure. For example, most leases are for pastoral purposes. Under the *Land Act 1994*, the purpose of the lease may only be amended to include or exclude a purpose and this purpose must be complementary. For example, if land was leased to someone for a particular use for 30 years, and the expansion of a nearby town meant that the land would be more valuable for residential purposes than for grazing purposes, the lessee can buy the land (and has first right of refusal), but cannot change the purpose of the lease.⁴⁶

⁴⁴ Note that leasing land from the State does not attract land tax.

⁴⁵ This is different for Deed of Grant (DOGIT) land. Land is transferable to aboriginal or Torres Strait Islanders under the *Aboriginal Land Act 1991*.

⁴⁶ When the government establishes lease-hold land, it determines the most appropriate use (ie. its purpose) of the land and applies rent accordingly. The government reassesses the value of the land. There was a relatively



Should someone wish to change the use of their lease (eg. to change from grazing to prawn farm), the lessee could go to the government with that project. Under the *Land Act 1994*, s.327, the government could issue a new lease. Before allocating any land, one would need to consider the impact of the *Vegetation Management Act 1999* on the application lease. Under s16 of the *Land Act 1994*, the chief executive must ensure the appropriate use of the land, taking into account state planning policies.

If someone no longer wants to use land for a particular purpose, they can apply for a conversion to freehold, and then either sell it or lease it to a prospective lessee. The State will not take action to acquire a lease for another entity. It will only ever do this for the purpose of public infrastructure.⁴⁷

4.2 Obtaining Development Approvals

The Wild Rivers Code is intended to ensure that development and other activities in wild river areas occurs in a manner which is consistent with the requirements and intent of the *Wild Rivers Act 2005* and the wild rivers declarations.⁴⁸ Except where stated otherwise for particular parts, it is a code for the Integrated Development Assessment System (IDAS) for use when assessing development applications under the *Sustainable Planning Act 2009*.

Development is categorised as:

1. **assessable** (SPA, SPP or local planning) in which case one needs a development permit; or
2. **self-assessable** or **exempt** development, in which case one must still comply with the applicable development code.

A wild rivers declaration details those developments and other activities that are subject to assessment against the relevant parts of the code. The Code provides required outcomes that development must meet in order to be approved. These required outcomes minimise impacts on the wild rivers that could otherwise result from development activities in the catchment.

4.2.1 Integrated Development Approval System

The IDAS arose out of reforms in the mid 1990s which included:

- changes to the development assessment system, including the introduction of complying development;
- the introduction of integrated development consents; and
- increasing the role of the private sector in the assessment process.

The *Sustainability Planning Act 2010* (SPA) replaced the *Integrated Planning Act 1997* (IPA). Essentially, the SPA and the *Sustainable Planning Regulation 2009* (SPR) set out the applicable codes, laws and policies for particular developments, along with the relevant assessment manager for various development applications, the referral agency and type (ie. a concurrence agency or advice agency) and compliance assessment for reconfiguring lots. The "referral jurisdiction" notes which piece of legislation the referral agency must seek to meet the purpose of in deciding

minor amendment in 2009 regarding amending a purpose, whereby the government can add a purpose for renewable energy for any lease, which means that State leasehold land can be used for, say wind farms, as they can co-exist with grazing and cultural use (ie. such practices don't interfere with the existing use).

⁴⁷ Under the *Land Act 1994* s122 and s123, it lists the priority criteria for an eligible person for land to be granted freehold for a priority.

⁴⁸ The Wild Rivers Code is a statutory instrument under the Statutory Instruments Act 1992. (Wild Rivers Act 2005, s 6A (2)). As such, a RIS is not required.



whether to approve an application.⁴⁹ Under a concurrence agency, a refusal means that the assessment manager must also refuse the application.

For example, if a development application (DA) is lodged with the council for a material change of use (MCU) (eg. a tourist cabin), the local council would be the assessment manager.⁵⁰ This application would trigger operational works (OW) for the *Vegetation Management Act 1999* (VMA) and would be handled as a part of the application, with DERM as the concurrence agency. Should DERM refuse the operational works, then the council must refuse the MCU. If the DA is simply for OW under the VMA, then DERM would be the assessment manager. If the application was within a designated urban area, the VMA would not apply, so that it would not trigger referral to DERM for the purposes of the VMA (ie. VMA is not referable within urban areas).

4.2.3 What is Deemed to be an “Application”?

Where activities are prohibited, the applications are:

“taken not to be a properly made application; and the assessment manager must refuse to receive the application.”

⁴⁹ For example, a development which is operational work for taking or interfering with water has the chief executive administering the *Water Act 2000* as a concurrency agency whose referral jurisdiction is the purposes of the *Water Act 2000* to the extent the purposes relate to taking, or interfering with, water under that Act. The purpose of each statute is clearly stated in each piece of legislation. All state legislation may be accessed alphabetically on the following Queensland Government’s Office of the Parliamentary Counsel (Acts, SL as in force) website link: http://www.legislation.qld.gov.au/Acts_SLs/Acts_SL.htm

⁵⁰ Where more than one assessing agency is involved in an application, one of those agencies is required to coordinate the overall assessment (ie. assessment manager). Generally the local government will be the assessment manager if its planning scheme makes the type of development or other activity to be assessable. Otherwise the assessment manager is the appropriate entity listed in Schedule 8A of the SPA. Each assessing agency must use the Wild Rivers Code when assessing those parts of an application that fall within the agency’s jurisdiction.



On this basis, the statement made to the media by the wild rivers project director, Scott Buchanan, that:

"We've had over 100 development applications that have been approved and we're not aware of one development application that's been refused."⁵¹

is somewhat misleading.⁵² As such, information about the number, scope and scale of applications submitted to the relevant assessment agencies is of limited use in allowing one to draw conclusions about the implications of the *Wild Rivers Act 2005* for sustainable development within declared basins.

Notwithstanding this limitation the available data shows that of the 94 applications (where such development is assessable) where DERM is the assessment manager:

- two-thirds of these (67%) related to mining (approximately three quarters granted, one quarter no longer current and 3 decisions pending);
- one quarter (25%) are for riverine protection permits (all approved);
- 5% were for VMA (of which 4 approved and 1 decision pending); and
- 3% were for ERAs.

Note that this data includes the wild river areas declared within the Gulf in 2007. Also note that 78 mining applications went to Department of Employment, Economic Development and Innovation (DEEDI), with 37 of these granted (47%), however, this includes some applications made prior to the declarations. Also of interest is that fact that no applications have been lodged with the local shire councils, apart from one application in Cook Shire for a MCU (with data unavailable for Mt Isa Shire).⁵³ This application was for a

tourist related development. Also note, that the Queensland Government's submission (p8) advised that all of the VMA applications related to land located with High Preservation Areas. On this basis, they are likely to be for fence lines or firebreaks, rather than tourism or other economic development.

4.3 Implementing the Wild Rivers Act

Wild river requirements for certain types of development and other activities are applied through existing assessment processes under the following Acts. All 13 statutes have been amended to reflect wild river requirements:

1. *Coastal Protection and Management Act 1995*
2. *Environmental Protection Act 1994*
3. *Fisheries Act 1994*
4. *Forestry Act 1959*
5. *Fossicking Act 1994*
6. *Sustainable Planning Act 2009*
7. *Land Protection (Pest and Stock Route Management) Act 2002*
8. *Mineral Resources Act 1989*

⁵¹ Sexton-McGrath, Kristy, *Anglican Church Condemns Wild Rivers Law*, 28 April, 2010 (ABC online).

⁵² The SRC requested additional detail in relation to the *Summary Information on development approvals in wild river areas to April 2010* from the Department (DERM) in its submission to the recent Senate inquiry, however this request was refused.

⁵³ Note that the Cook Shire is responsible for approximately 80% of the local government needs of CYP, with the balance of local government power held by a small number of aboriginal shire councils.



9. *Nature Conservation Act 1992*
10. *State Development and Public Works Organisation Act 1971*
11. *Transport Infrastructure Act 1994*
12. *Vegetation Management Act 1999*
13. *Water Act 2000*

These statutes prohibit most new development in certain areas or a wild river area (eg. a HPA and nominated waterways within preservation areas) and impose additional assessment criteria or limits via a wild river declaration and the Wild Rivers Code (unless the activity is exempt).⁵⁴

4.3.1 Wild River Declarations

The wild river legislation is aimed at ensuring that "wild" rivers are protected via prohibiting or restricting new development activities which would adversely impact the environment. This section aims to demonstrate the likely impact of an area being declared a wild river area on development, and in particular, sustainable development.⁵⁵ It uses the Archer Basin Wild River Declaration 2009 to illustrate the extent to which certain activities are prohibited.

Wild river declarations are structured as follows:

- The taking of Natural Resources:
 - Part 1 Taking of Water
 - Part 2 Taking of Natural Resources (quarry materials, forest products)
- Regulating Activities:
 - Part 1 Carrying out water works
 - Part 1 Taking or interfering with overland flow water
 - Part 1 Works for taking sub-artesian water
 - Part 2 In-stream works and activities
 - Part 3 Activities in tidal areas
 - Part 4 Mining and petroleum activities
 - Part 5 Other regulated activities:
 - residential, commercial or industrial development
 - protected area management plans
 - master planned areas
 - applications for authorities under the *Fisheries Act 1994*
 - aquaculture
 - release of non-Indigenous fisheries resources
 - agricultural activities
 - animal husbandry activities
 - native vegetation clearing activities
 - pest control notices
 - environmentally relevant activities⁵⁶

⁵⁴ All state legislation may be accessed alphabetically on the following Queensland Government's Office of the Parliamentary Counsel (Acts, SL as in force) website link:
http://www.legislation.qld.gov.au/Acts_SLs/Acts_SL.htm

⁵⁵ See footnote 1 for the definition of ecological sustainability as defined in the SPA 2009.

⁵⁶ ERAs include:

- chapter 4 activities;
- level 1 and level 2 petroleum activities
- level 1 and level 2 mining activities

Level 2 mining activities and level 2 petroleum activities are lower risk activities which have comparatively less potential to cause environmental harm.



Table 3 below lists what is meant by "development" under the SPA. These are important terms for understanding the nature of applications and the various exceptions which apply to certain prohibitions or restrictions.

Table 3: Important terms under the Sustainable Planning Act 2009 and the Wild Rivers Act 2005
Development under the Sustainable Planning Act 2009

Carrying out building work	• building, repairing, altering, underpinning, moving, demolishing; work regulated under building assessment provisions other than IDAS,
Carrying out plumbing or drainage work	
Carrying out operational work	
Reconfiguring a lot	• extracting materials, conducting a forest practice, excavating or filling, placing and advertising device on premises, undertaking work in, on over or under premises that materially affects premises or their use; clearing vegetation, include that to which VMA applies; ⁵⁷ or undertaking operations of any kind and all things constructed or installed than allow taking or interfering with water, other than using a water truck to pump water; undertaking tidal works or work in a coastal management district; constructing or raising waterway barrier works; performing work in a declared fish habitat area or removing, destroying or damaging a marine plant or undertaking road works on a local government road.
Making a material change of use of premises	• creating lots by subdividing another lot; or amalgamating 2 or more lots; or rearranging boundaries of a lot by registering a plan of subdivision; or dividing land into parts by agreement or creating an easement giving access to a lot from a constructed road.
	• start of a new use of premises or re-establishment of previous use on the premises or a material increase in the intensity or scale of the use, ERAs administered through IDAS (other than agricultural ERA under s.75 of EPA, a mining activity, a chapter 5A activity or a mobile and temporary ERA)
	• continuation of an ERA if an approval for activity ceases to have effect because of operation s619 and s624 EPA or there is not DA for the activity and it was, before October 2004, carried out without an environmental authority required under the EPA

Specified works under the Wild Rivers Act 2005

Specified works	• s48 (2) WRA Specified works means— (a) infrastructure and works prescribed under a regulation to be necessary for disaster management; or (b) desnagging that is the minimum necessary to allow safe navigation of a marked navigable channel; or (c) the following infrastructure and works: (i) roads; (ii) railways; (iii) jetties and boat ramps for use by the public; (iv) works for the rehabilitation of land, including, for example, rehabilitation of abandoned mines; (v) infrastructure for the transmission or distribution of electricity; (vi) pipelines; (vii) conveyor belts; (viii) cables; (ix) other infrastructure, prescribed under a regulation, that relates to the transportation, movement, transmission or flow of anything through a wild river area including, for example, goods, materials, substances, matter, particles with or without charge, light, energy, information and anything generated or produced, a jetty or boat ramp or pontoon on, or providing access to Indigenous land.
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⁵⁷ Note that operations work does not include clearing vegetation on a forest reserve or a protected area under the *Nature Conservation Act 1992*; an area declared as a State forest or timber reserve under the *Forestry Act 1959*; or a forest entitlement area under the *Land Act 1994*.



Table 4 lists the types of development activities and where they are assessable, the relevant part of the Wild Rivers Code and the assessing agencies.

Table 4: Types of Activities, Applicable Parts of the Wild Rivers Code and Assessing Agencies			
Activity	Description	Code Part	Assessing Agencies
MCU and OW for agriculture and animal husbandry activities	- cultivation for crops, market gardens and orchards - planting a species that is listed in relevant wild river declaration as a moderate risk species - changing type of cultivation occurring - crocodile farms - emu farms - lamb feedlots	1	DERM
MCU for aquaculture ^a	- fish hatcheries - commercial fishery production facilities	2	Primary industries and Fisheries
MCU for environmentally relevant activities ^b (other than mining and petroleum)	- chemical storage - manufacturing plant - waste disposal - Aquaculture - cattle feedlotting - pig farming - poultry farming - extraction - screening - asphalt manufacturing See Appendix D for full list of ERAs	3	EPA
OW for tidal works or works within a Coastal Management District BW and OW in a fish habitat area and OW for the removal, destruction or damage of marine plants	- desnagging - earthworks - jetties	4	EPA Primary industries and Fisheries
MCU and OW associated with RaL for residential, commercial and industrial development (not ERAs)	MCU (e.g. rezoning of land) OW associated with reconfiguring a lot (e.g. doing earthworks for an easement)	5	LG
OW for taking overland flow	Include pumps used to take and storages used to store overland flow water, as well as sumps, drains and pipes; pumps and drains; other structures used to hold or pond water; levees and diversion banks used to direct water into a storage or to increase the amount of water that infiltrates the soil; and tailwater storage for holding contaminated runoff.	6	DERM
OW for interfering with overland flow	levees, diversions, drains, bunds, ring tanks used to store watercourse or underground water that incidentally interferes with overland flow water (i.e. do not result in water use).	7	DERM
OW for waterway barrier works	- dams - weirs - bunds (may include culverts)	8	Primary industries and Fisheries
In-stream activities in non-tidal reaches	- stream crossings - weed and pest management - stream rehabilitation works - desilting pump holes	9	DERM
MCU and other development for riverine quarry material extraction	- dredging in waters - extraction in waters	10	LG, DERM & EPA
Forest production	- log timber - sandalwood Management of State forests (both native forests and plantations), timber reserves and forest entitlements areas in the wild river area; and getting forest products in the wild river area & associated activities such as constructing tracks.	11	DERM
OW for clearing native vegetation	Clearing of native vegetation (within HPA) - native tree - native plant (other than grass or non-woody herbage, a plant within a grassland regional ecosystem prescribed under a regulation and a mangrove.)	12	DERM

Source: Wild Rivers Code, February 2007, DERM.

^a Aquaculture developments that are deemed to be an environmentally relevant activity are subject to Part 3 of the Code. Aquaculture becomes an ERA when: - the total area of impoundments is 5 ha (regardless of whether wastes are released to waters or not) or the total area of impoundments is less than 5 ha and wastes are released to waters.

^b Some ERAs are delegated to a local government or another agency not assessed under IDAS.



Table 5 lists those activities prohibited within HPA, nominated waterways and flood management areas where overland water is concerned (along with any exceptions). These exceptions capture the extent to which activities are allowed, and therefore the likely scale and nature of future new development within these areas. Table 6 shows those activities which are restricted within remaining WR areas (most often PAs outside of the nominated waterways).

A more extensive list of prohibited, restricted and assessable/exempt activities within wild river areas is provided in Appendix C. Based on the tables 5 and 6, as well as Appendix C, the following section puts forward evidence to support the SRC's assertion that overall, the wild rivers legislation will stifle future development (both new development and expansion of existing development), thereby significantly limiting future increases in the standard of living for those living in declared wild river areas.



Table 5: Prohibited Activities and Exceptions - HPAs, Nominal Waterways in PAs (and FMAs where overland flow water concerned).

Prohibited Activity	Exception	Description	Type of Wild River Area	Assessing Agency	Act	Implications
No taking or water No interference with flow of water	none for HPA For dams and weirs on nominated waterways in PAs	Deals with unallocated water in: -watercourses, lakes or springs - subartesian water Does not apply to unallocated water from reserves (general reserves, strategic reserves and indigenous reserves) Chief executive must not make a decision that would increase the total annual volume of water available to be taken in WRA (for applications made, but not dealt with prior to declaration). The amount available includes existing authorisations under the <i>Commonwealth Aluminium Corporation Pty. Limited Agreement Act 1957</i> and the <i>Alcan Queensland Pty. Limited Agreement Act 1965</i> .	HPA & nominated waterways in PA; subartesian management areas	DERM	Wild Rivers Act 2005 Water Regulation 2002 SPA, Schedule 1, Item 12	Water allocations or water extractions from these areas are strictly limited and regulated . No new dams and weirs on wild rivers or their main tributaries General reserves can be used for any purpose; Strategic reserves must be for a project of state or regional significance; town water supply or ecotourism in wild river areas. Indigenous reserves for indigenous communities to achieve economic and social aspirations.
Any operational works which take water (eg. dams) Any operational works which interfere with the flow of water (eg. dams)	none	Any operational works that interferes with the flow of water in a watercourse, lake or spring.	HPA	DERM	Water Act 2000 s966A SPA 2009 sch 1 item 12(a) & 12(b)	No new dams and weirs on wild rivers and their main tributaries.
All operational works which take overland flow water	For stock or domestic purposes (self-assessable provided less than a particular size.) Within specified works within FMA: - existing overland flow works - repair & maintenance existing works or works constructed under development permit - a stock yard or fence - open drain or trench of average depth of less than 300mm below ground or - works for a residential complex.	Includes: -Pumps to take and storages - Pumps and drains (used to connect storages) - other structures used to hold or pond water - levees and diversion banks used to direct water - tailwater storage for holding contaminated runoff	FMA & HPA	DERM	SPA 2009 sch 1, item 12 (c)	Limited new development to enable capture and use of overland flows. Prevent land-owners from harvesting flood waters for irrigation purposes. Limited size of works for stock or domestic purposes .
Clearing of native vegetation	Clearing allowed if for a "relevant purpose" under the VMA 1999 which includes: - necessary to control non-native plants or declared pests; or - to ensure public safety; or - for establishing a necessary fence, firebreak, road or vehicular track, or for constructing necessary built infrastructure, (each relevant infrastructure) and the clearing for the relevant infrastructure can not reasonably be avoided or minimised; or - a natural and ordinary consequence of other assessable development for which a development approval was given under the repealed Integrated Planning Act 1997, or a development application was made under that Act, before 16 May 2003; or - for clearing of encroachment; - in an urban area under the Urban Land Development Authority Act 2007; or - for clearing regrowth vegetation on freehold land, indigenous land or leases issued under the Land Act 1994 for agriculture or grazing purposes, in an area shown as a registered area of agriculture on a registered area of agriculture map in a wild river HPA. Where clearing falls within one of the exceptions listed in Schedule 24 of the Sustainable Planning Regulation 2009 (eg. a development application for a material change of use has already been approved), clearing may occur without a permit.	Criteria to be met for establishing that "built infrastructure" is for a "relevant purpose": - clearing is for establishing infrastructure (eg. necessary approvals in place) - built in nature (not a hole in the ground for refuse tip or contour banks) - necessary (imperitive requirement or need; economic benefit not sufficient to demonstrate this) - no suitable alternative site which would not require clearing (evidence of other options, or if this is the only suitable location, reasons why) Penalty provisions under the VMA are higher in areas of high nature conservation value.	HPA HPAs are declared areas of high nature conservation value	DERM	VMA 1999 s. 22A VMA 1999 s 17(A) Sustainable Planning Regulation, Schedules 3 (Part 1) and 24 (Parts 1 & 2)	HPAs are Declared Area Codes Development activities can only proceed if they do not involve clearing or they meet the criteria for "relevant purpose" within a HPA or PA. Note that the focus on "necessary built infrastructure" is unlikely to be particularly helpful for most developments , as it is mainly aimed at basic infrastructure such as electricity and pipelines. New development severely limited within HPAs , as not even "significant State projects" under SDPWOA 1971 meet these criteria. Note also the date of "before 16 May 2003" for having a DA for which a relevant purpose would include the natural and ordinary consequence of other assessable development. Exceptions listed in Schedule 24 of the Sustainable Planning Regulation are not particularly helpful in most development scenarios . Note that, unlike PAs outside of nominated waterways, clearing "for thinning" is not considered to a "relevant purpose". This is particularly problematic, with timber thickening a major problem since the floods of 1974. In some areas, such thickening can choke out grasses. Indeed, it is within HPAs and nominate waterways that thinning activities would yield the greatest results. Small scale clearing for special indigenous purposes is allowed under the Cape York Peninsula Heritage Act, however, this is relatively minor in nature (e.g. subsistence farming 10-50 people) and non-commercial .



Table 5: Continued

Prohibited Activity	Exception	Description	Type of Wild River Area	Assessing Agency	Act	Implications
No use of quarry materials (no allocations) Development for riverine quarry material	For specified works For residential complexes	Applications for the allocation of quarry materials	HPA, nominated waterways and FMAs	DERM	The Water Act 2000 s280 & s282	Can only use quarry material for specified works or residential purposes, thereby severely limiting the types of development and commercial opportunities.
			WR area	EPA	CPMA 1995 s73	
		Dredging in waters Extracting in waters (all operational works for removing quarry materials)	HPA & nominated waterways	LG, DERM, EPA	EPA 1994 s73AA Water Act 2000 s966C	No new development for dredging or extraction unless an allocation notice is held, with allocation notices only issued for specified works and residential complexes. Higher transport costs associated with obtaining some types of quarry materials, especially where prohibited areas adjoin national parks.
All operational works associated with waterway barrier works Fish hatcheries Commercial fishery production facilities	none	Eg. dams, weirs, bunds, culverts -MCU for aquaculture - Release and possession of non-indigenous fisheries resources	HPA & nominated waterways in PA	Primary Industries and Fisheries	Fisheries Act 1994 s76DA & s90	No new development to construct or raise a waterway barrier. Therefore no new development dependant upon such constructions. No new aquaculture activities
All operational works for tidal work All operational work in Coastal Management Districts	Specified works (desnagging, earthworks, public jetties providing access to indigenous land)		WR area Declared fish habitat area	DERM	CPMA 1995 s. 104A	Under IDAS, development applications for "operational work" must be refused (s.104A(3)) with exception of OW for "specified works" which must comply with wild rivers code (s.104A(4) and (5)).
All building works All operational works	For specified works		Declared fish habitat area within a HPA	Primary Industries and Fisheries	Fisheries Act 1994 s76DC	Only new development within declared fish habitat areas will be for specified works. Severely limits opportunities for wealth creation.
In-stream activities in non-tidal reaches	For: - control of non-native plants or declared pests in the area; - necessary for specified works; - necessary or unavoidable part of installing or maintaining works or infrastructure required to support other development for which a development permit is not required, or if a development permit is required, the permit is held or has been applied for.	In-stream activities that disturb non-tidal reaches of watercourses: - destroying vegetation - excavating or placing fill in a watercourse, lake or spring	HPA & nominated waterways (watercourse component)	DERM	Water Act 2000 (s266(4))	No new development that involves in-stream activities in non-tidal reaches.



Table 5: Continued

Prohibited Activity	Exception	Description	Type of Wild River Area	Assessing Agency	Act	Implications
All operational work which leads to removal, destruction or damage of marine plants	For specified works For work that is a necessary and unavoidable part of installing or maintaining works or infrastructure (required to support other development for which a development permit is not required, or if a permit is required, it is held or has been applied for).		HPA and declared fish habitat areas	Primary Industries and Fisheries	Fisheries Act 1994 s76DB (2) & (3) Fisheries Regulation 1995	Most new development which damages or removes marine plants is prohibited, other than for specified works, maintenance work or work for which a permit is held or has previously been applied for. Can still undertake research, education and monitoring activities, but these activities do not create a lot of wealth.
Agricultural activities: - material change of use - operational works	Note 'agriculture' does not include: - growing crops or products of domestic needs of the occupants of the land; - baling or cutting pasture; - broadcasting seed to establish improved pasture; - forestry activities; - improving pasture using low impact soil disturbance methods provided neither high nor moderate risk pasture species are being used.	- MCU for agricultural activities e.g. cultivating or disturbing the soil, or using the land for horticulture or viticulture	HPA High risk species	DERM	WRA s.42(2)(a) and 3 Water Regulation 2002	Very small scale and non-commercial agricultural development within HPAs. Limited opportunities to develop new technologies (associated with grazing) to the extent that this involves what is considered to be "high risk species". Also limited by prohibition on dams, weirs within HPAs
All animal husbandry activities: - material change of use	Note 'animal husbandry' does not include (& therefore the list below are 'effectively' exceptions): - grazing - raising livestock for domestic needs of occupants of land; - keeping livestock (eg. horses) necessary for working the land; - giving livestock supplementary feed, either to maintain their survival or improve its fertility; - preparation of livestock for sale if predominantly reliant on native or improved pasture for feed. - operational works for animal husbandry	- MCU for animal husbandry activities e.g. crocodile farms, emu farms and lamb feedlots.	HPA	DERM	WRA s.42(2)(a) and 3	Very limited commercial developments involving animal husbandry. Within HPA only allow communal domestic gardens limited to number of people relying on them (i.e. subsistence scale 10-50 people) (Also limited by fact that can only have dams and weirs for stock and domestic purposes along nominated waterways in PAs)



Table 5: Continued						
Prohibited Activity	Exception	Description	Type of Wild River Area	Assessing Agency	Act	Implications
Granting of mining tenements	For low impact exploration permits outside streams For mining leases	There are five tenements that exist under the <i>Mineral Resource Act 1989</i> (MRA): 1 prospecting permits, 2 mining claims, 3 exploration permits, 4 mineral development licences, and 5 mining leases.	HPA	DERM	Mineral Resources Act 1989 s383	HPAs are excluded from the prospecting permit, mining claim or mineral development licence granted in WR areas (s383(1)). <u>In the case of exploration permits, only "low impact activities" may be undertaken in HPA (other than watercourses or lakes) and only "limited hand sampling techniques" may be used in the watercourses and lakes of HPA or nominated waterways.</u> For mining leases, mining operations may not be carried out on the surface of land (which term includes the bed of a watercourse and the waters above land) in a HPA or nominated waterway.
Mining lease activities on the surface of land	For "projects of state significance" under SDPWOA 1971 For projects for which a special agreement was enacted (& applications allowed under the special agreement act)	Mining mineral resources and processing	HPA & nominated waterways in PA	DERM	Mineral Resources Act 1989	For mining leases, mining operations may not be carried out on the surface of land (which term includes the bed of a watercourse and the waters above land) in a HPA or nominated waterway. See exceptions to this. Note also that the Comalco operation at Weipa occurs under a special agreement act. Implication of these exceptions is that the government is prepared to treat mining differently to most other types of development.
Most new Environmentally Relevant Activities (ERAs) (See appendix D for various types of ERAs)	Exempt ERAs in Designated Urban areas: - ERA 14 crematorium - ERA 28 motor vehicle workshop - all previous level 2 ERAs <i>(other than ERA 1 aquaculture, ERA 2 cattle feeding, ERA 3 pig-farming, ERA 4 poultry farming, ERA 20 extraction, ERA 22 screening, and ERA 59 asphalt manufacturing.)</i>	Eg. chemical storage, manufacturing plant and waste disposal	HPA Designated Urban Areas within HPA	EPA	Wild River Act 2005 EPA 1994, s.73AA	Most ERAs prohibited within a HPA. Assessment manager must be satisfied that there is no viable location for the development outside the HPA. See exceptions - <u>exempt activities are low impact and for specified works or residential complexes. Approximately 13 out of a possible 184 ERAs meet these criteria. New development activities unlikely to be commercial in nature, thereby little opportunity for wealth generation.</u>
Any ERA that relates to development in waters and is for an extraction ERA	ERAs accompanied by an allocation notice ERAs for sewage, water treatment, dredging, extraction if activity is low impact and carried outside waters, screening is carried outside waters and all are either: For specified works For residential complexes	See Appendix D for a complete list of ERAs	HPA FMA	LG, DERM & EPA	EPA 1994 s73AA(4)	<u>New development opportunities limited to those DAs accompanied by allocation notices.</u> <u>Exceptions again related to specified works and residential complexes, therefore limited potential for wealth generation.</u> <u>Exemptions</u> within Designated Urban Areas <u>low impact and therefore small scale.</u>
Master planned areas	none	Master planned areas are identified by local governments in their planning schemes or in a document under a regional plan.	WR area	LG	Wild Rivers Act 2005	No impact in CYP as no master planned areas
Forest production	For: - honey - all forms of indigenous animal life - any nest, bower, shelter or structure of any form of indigenous animal life - fossil remains and relics - timber products that are cut sections and processed (generally taken from felled trees) and specialty pieces and timber by-products (e.g. charcoal, sawdust, bark)	Log timber, sandalwood	HPA and nominated waterways	DERM	Forestry Act 1959 Forestry Plantations Qld Act 2006	No new plantation forests on State lands within HPA (and setback a certain distance from nominated waterways within PAs) <u>Very limited new development</u>
All crude oil or petroleum product storage	For residential complexes outside a designated urban area	Storage of crude oil or petroleum	HPAs and nominated waterways	DERM	EPA 1994 s73AA(4)	<u>Increases cost of pumping from areas where pumping is permitted,</u> as need mobile trucks for access to petroleum and crude oil.

Source: Wild Rivers Declaration, DERM, Wild River Code, relevant statutes, Annexure provided by Balkanu and Wild rivers and Other Legislation Amendment Act (2006), Summary of Amendments to Wild Rivers legislation, DERM.



Table 6: Restricted/Regulated Activities and Exceptions - PAs, Designated Urban Areas (and FMAs where overland flow water is concerned).

Restricted/Regulated Activity	Exception	Description	Type of Wild River Area	Assessing Agency	Act	Implications
Environmentally relevant activities in PAs (non-compliant with Part 10 and Part 3 of WR Code)	<ul style="list-style-type: none"> - sewage treatment (ERA 15) - Municipal water treatment plant (ERA 16) - dredging material (ERA 19) - screening (ERA 22) outside a watercourse <p>Designated Urban Areas can develop:</p> <ul style="list-style-type: none"> - crematorium (ERA 14) - motor vehicle workshop (ERA 28) - all level 2 ERAs [check] 	<p>See Appendix D for a full list of ERAs</p> <p>Part 10 of WR code relates to the non-ERA aspects of riverine quarry material extraction</p> <p>Part 3 relates to ERA related aspects (i.e. setback, contaminated water and slopes).</p>	<p>PAs</p> <p>Designated Urban Areas</p>	<p>EPA</p> <p>LG</p> <p>DERM</p>	<p>EPA 1994 s.73AA</p>	<p>Very limited industrial and urban development (e.g. small scale 'eco-friendly' tourism.)</p> <p>Effectively leaves a total of 13 ERAs able to be done within a Designated Urban Area, with all of these low scale activities.</p> <p>ERA developments within PAs limited by restrictions on clearing of native vegetation (must meet the criteria "for relevant purpose", for which most would not).</p>
Extracting riverine rock or other material (ERA 20) prohibited	<p>If an allocation notice is held (under Water Act 2000 or CPMA 1995) for which new allocation notices can only be issued:</p> <ul style="list-style-type: none"> - For specified works - For residential complexes 		<p>PAs (outside HPA & FMA)</p> <p>Within non-tidal streams</p> <p>Off-stream pits in wild river area</p>	<p>EPA</p>	<p>EPA 1994 s.73AA</p>	<p>Very limited development as new allocation notices only issued for specified works and residential complexes (within non-tidal streams)</p> <p>Outside HPAs and FMAs, are allowed for any purpose, subject to assessment (off-stream quarry pits).</p>
Operational works if they interfere with the flow of water in a nominated waterway	<p>For dams</p> <p>For weirs</p>	<p>Any operational works that interfere with the flow of water in a watercourse, lake or spring.</p>	<p>Nominated waterways of PA</p>	<p>DERM</p>	<p>Water Act 2000 s966A</p> <p>SPA 2009</p>	<p>Storage is relatively expensive due to erosion. Land-owners are prevented from flood-lifting straight out of the river (which is more economical).</p> <p>Limited access to electricity and relatively high cost of electricity associated with pumping can make some activities unviable, or less likely to be undertaken.</p>
<p>Operational works can take overland flow outside FMAs</p> <p>Operational works can interfere with overland flows provided outcomes in section B, part 7 of the WR code met</p>	<p>Exceptions are operational works that are assessable or self-assessable (see Part 7 WR code):</p> <p>For a borrow pit</p> <p>For a levee bank or other solid earth work for a commercial or industrial development or a non-domestic agricultural building other than for (i) specified works & (ii) an off-stream storage for storing water taken from a watercourse, lake, spring or aquifer.</p>		<p>PAs (excluding FMAs)</p>	<p>DERM</p>	<p>Water Act 2000 (s.966A)</p> <p>Water Act 2000 (s.966B)</p> <p>SPA 2009 Regulation sch 3, part 1, table 4; item 3(c)(i) and 1(b)(ii)</p>	<p>Works do not concentrate overland flows to the extent of causing soil erosion. (PS. 4 Part 6 WR Code)</p> <p>Note that in Part 7 of the code, there are no probable solutions for:</p> <ul style="list-style-type: none"> - specified works (open drain or trench) more than 30cm deep; - borrowed pits deeper than 50cm; - levees and other solid earth works in relation to commercial and industrial development or non-domestic agricultural buildings larger than permitted self-assessable works. <p>This would make these developments more difficult to receive approval.</p>



Table 6: Continued

Restricted/Regulated Activity	Exception	Description	Type of Wild River Area	Assessing Agency	Act	Implications
All assessable development that is operational work that is clearing of native vegetations.	<p>Clearing allowed if for a "relevant purpose" under the VMA 1999 which includes:</p> <ul style="list-style-type: none"> - a project declared to be significant under the SDPWOA 1971^c - necessary to control non-native plants or declared pests; or - to ensure public safety; or - for establishing a necessary fence, firebreak, road or vehicular track, or for constructing necessary built infrastructure, (each relevant infrastructure) and the clearing for the relevant infrastructure can not reasonably be avoided or minimised; or - a natural and ordinary consequence of other assessable development for which a development approval was given under the repealed Integrated Planning Act 1997, or a development application was made under that Act, before 16 May 2003; or - for fodder harvesting; or - for thinning; - for an extractive industry; or - for clearing of encroachment; - in an urban area under the Urban Land Development Authority Act 2007; or - for clearing regrowth vegetation on freehold land, indigenous land or leases issued under the Land Act 1994 for agriculture or grazing purposes, in an area shown as a registered area of agriculture on a registered area of agriculture map in a wild river HPA; or - for a special indigenous purpose under the CYPH Act. <p>Where clearing falls within one of the exceptions listed in Sch 24 of the Sustainable Planning Regulation 2009 (eg. a development application for a material change of use has already been approved), clearing may occur without a permit.</p>	<p>Criteria to be met for establishing that "built infrastructure" is for a "relevant purpose":</p> <ul style="list-style-type: none"> - clearing is for establishing infrastructure (eg. necessary approvals in place) - built in nature (not a hole in the ground for refuse tip or contour banks) - necessary (imperitive requirement or need; economic benefit not sufficient to demonstrate this) - no suitable alternative site which would not require clearing (evidence of other options, or if this is the only suitable location, reasons why. <p>Penalty provisions under the VMA are lower outside areas of high nature conservation value.</p>	PA	<p>DERM, LG</p> <p>Where a local government Planning Scheme requires an MCU for the development, the concurrence agency could apply.</p>	<p>VMA 1999 s. 22A</p> <p>Sustainable Planning Regulation, Schedules 3 (Part 1) and 24 (Parts 1 & 2)</p>	<p>Within PAs, existing regional vegetation management codes apply (i.e. <i>Regional Vegetation Management Code for Ongoing Clearing Purposes, Cape York Peninsula Bioregion</i>).</p> <p>Although, there are slightly more criteria for "relevant purpose", thereby more activities allowed, the end result is still very limited new development (including expansion of existing development), unless clearing is not required.</p> <p>Exclusions for special indigenous interests under the CYPH Act still facilitate relatively minor clearing for purposes of subsistence farming.</p> <p>While the purpose of VMA defines "environment" as including "the social, economic, aesthetic and cultural conditions" affecting and affected by "ecosystems", the application of "relevant purpose" is such that advise is that "economic benefit" is not sufficient to demonstrate "necessary" in assessing whether "built infrastructure" is for a relevant purpose.</p> <p>Exceptions listed in Schedule 24 of the Sustainable Planning Regulation are not particularly helpful in most development scenarios.</p>
master planned areas	none	Master planned areas are identified by local governments in their planning schemes or in a document under a regional plan.	PA	LG	Wild Rivers Act 2005	No impact in CYP as no master planned areas
MCU for agricultural or animal husbandry activities OW for agricultural activities	operational works for animal husbandry activities	<p>Establishment of new areas for cultivation of crops, market gardens and orchards</p> <p>Establishment of new areas for cultivation of moderate risk species</p> <p>Changing the type of cultivation</p> <p>Crocodile farms, emu farms, lamb feedlots</p>	PA	DERM	Wild Rivers Act 2005 s42	<p>Limited agricultural development due to the fact that most viable soils occur within HPAs;</p> <p>Little opportunity to use new technology (e.g. artificial grasses) where these are classified as high risk species. If moderate risk, must satisfy set-back requirements from nominated waterways.</p>
Assessable development related to: - residential - commercial - industrial under a local govt planning scheme or the reconfiguration (RaL) of a lot provisions of SPA, providing that it complies with the WR code	Designated urban area	Could require a material change of use (MCU) or reconfiguration of lot (RaL) or operational works within a WR area must comply with the relevant wild rivers code	Designated Urban Area	LG	WRA s.43	<p>Most (roughly 95%) of ERAs are not permitted within Designated Urban Areas.</p> <p>Those which are permitted are very small scale (eg. crematorium, motor vehicle workshop)</p>
Self-assessable development which complies with applicable development codes.	na	Self-assessable development relevant to a WR area is operational work for taking water from a watercourse, lake, spring, overland flow water or subartesian water if the work is "mentioned as" self-assessable development in a wild river declaration.	na	na	Sustainable Planning Regulation 2009, schedule 3, part 2, table 4	Limited development activity is self-assessable - likely to be low scale and non-commercial in nature

Source: Wild Rivers Declaration, DERM, Wild River Code, DERM and relevant statutes, Annexure provided by Balkanu and Wild rivers and Other Legislation Amendment Act (2006), Summary of Amendments to Wild Rivers legislation, DERM.



4.3.2 Implications for Development

In essence, most prohibitions within wild river areas apply within high preservation area (HPAs) and nominated waterways within preservation areas (PAs). Within these areas, activities are restricted to non-commercial activities or residential complexes. Since most commercial activities are prohibited within HPAs and nominated waterways (or FMAs in relation to overland flow water), this leaves PAs or designated urban areas as the area where such development may occur.⁵⁸

The overall effect of these prohibitions and restrictions is that very limited agricultural, urban and industrial development (eg. small scale “eco-friendly” tourism) is allowed within HPAs and nominated waterways of PAs of wild river areas. This is problematic because these areas (referred to by local residents as “river land”) are the most productive and therefore most viable areas for those relying upon the land for their income.

Water allocations or water extractions from wild rivers and nominated waterways are strictly limited and regulated. No new dams or weirs are permitted on a wild river or its main tributaries, with operational works for the taking of overland flow water only permitted for stock and domestic purposes. These new off-stream storages are limited in capacity, which affects the scale of activities and consequently viability.⁵⁹

Most exceptions to the rules relate to development activity for specified works or residential complexes (see table 3 for definitions). While some mining lease activity (including surface mining) is permitted with the Co-ordinator General declaring a significant project under the *State Development and Public Works Organisation Act 1971* (SDPWOA), opportunities for projects to meet one or more of the criteria for “significant projects” are very limited within the region.⁶⁰

Where a prospective developer wants to pursue an application which fails to meet these strict requirements, there is a mechanism to apply to the Minister for a Property Development Plan, which may result in a change to the WR Declaration. Competent planning advice commissioned by the SRC (see SRC 2009 report) concludes that this remedy is unlikely to provide relief for most people because of the time, cost and uncertainty associated with its implementation.⁶¹ If The Minister approves the application (ie. removes the prohibitions in the declaration), then after a formal process including public notification, they may amend the WR declaration to remove the prohibition.

⁵⁸ Note that there are no designated urban areas in the Wenlock wild river area.

⁵⁹ There is no WRP for the CYP area. However, based on the Water Resource (Gulf) Plan 2007 s.43, “the chief executive may accept and decide the application only if the purpose of the proposed interference or increase in interference is:

- (a) to store water for stock or domestic purposes; or
- (b) to provide a pumping pool to enable water to be taken under an authorisation in existence at the commencement of this plan; or
- (c) to store water for a purpose not related to the taking of water under a water entitlement.

(4) However, the chief executive must not approve an application for a proposed interference or increase in interference for a purpose mentioned in subsection (2)(b) or (c) if the proposed storage capacity is greater than:

- (a) for a purpose mentioned in subsection (2)(b)—10ML; or
- (b) for a purpose mentioned in subsection (2) (c)—250ML.

(5) This section does not apply to an application about unallocated water.”

⁶⁰ Based on the SRCs discussions with the Department of Infrastructure Planning.

⁶¹ This mechanism is available to certain types of development prohibited by a wild rivers declaration.



In assessing the overall economic impact of these prohibitions or restrictions, it is important to consider:

- The nature of the development activity (**commercial versus subsistence**);
- The **scale** of the development activity and the consequence this may have for viability and wealth and job creation;
- The **location of the development activity and the impact of location on viability** (eg. productivity, costs associated with distance etc)
- Any other legislative “**hurdles**” which currently exist (While some may prohibit a development (eg. VMA 1999), others may increase the cost of compliance (eg. EPA 1994).⁶²
- The likely **impact on new development** (both in terms of what is assessable and the impact on compliance costs and operating costs);
- The likely impact on existing development (although existing development is exempt from the WRA, it is affected to the extent that **opportunities for expansion** or opportunities to use new technology may be affected); and
- The **cumulative impact of numerous wild river declarations** and their proximity to each other.

Such impacts will vary depending on the nature of the activity, the landscape and natural resource values within particular areas. In addition, the impacts are compounded by the effect of other statutes (eg. VMA 1999) operating within wild river areas.

Grazing accounts for the greatest area of land use. While cattle can still graze within HPAs and nominated waterways of PAs, the industry is still impacted in several ways. The four largest costs for graziers are:

- 1 labour;
- 2 fuel;
- 3 freight; and
- 4 electricity.⁶³

High preservation areas and nominated waterways within PAs (“river country”) are the most productive country in 90% of northern Australia. Prohibitions on clearing (VMA 1999) and irrigation (WRA 2005), as well as the use of artificial grasses (moderate and high risk species WRA 2005), reduce business viability, and as such deter investment, thereby reducing land values. Native pastures are not particularly suitable for livestock, except within HPAs and nominated waterways of PAs.⁶⁴ Preservation areas, in and of themselves, are not viable, since soils in PAs are phosphate deficient.⁶⁵ As a consequence, the quality of the vegetation is not of the right quality for feed.⁶⁶

⁶² For example, the *Environmental Protection Regulation 2008 - Regulatory Impact Statement for SL 2008 No. 370* made under the Environmental Protection Act 1994 states ...“*although some sectors have significant costs for environmental compliance...*” p20.

⁶³ Graziers estimated that as a percentage of gross income, labour costs account for approximately 17%, fuel 4.5%, freight 7% and electricity 1.3%. Feed on phosphate deficient soils can account for between 20 to 30% of gross income. Feed costs are significantly lower on “river country” soils and where weaners are trucked out to better country where graziers do not have to feed. However, with the latter, freight costs would be higher. Other significant costs include government charges (rent), maintenance on roads and fencing, and botulism programs.

⁶⁴ Based on discussions with graziers.

⁶⁵ The pastures of northern Australia are generally regarded as very low quality for cattle production. This is because they are deficient in phosphorus (P), particularly a wet season problem, deficient in protein, especially



Using natural grasses in the HPA, it is possible to run 1 beast to 30 acres, with productivity in the PA (outside nominated waterways) half this level (ie. one beast to 60 acres).⁶⁷ Smaller numbers of cattle over such a large area, which still need to be supplementary fed, make this proposition unviable. It is only the combined use of "river country" that makes the combined HPA and PA grazing profitable.

Adequate animal supplementation could overcome all of these problems, support high levels of breeder production and pay handsome dividends. However, the viability of such practices will require greater infrastructure and development so that markets can sustain cattle production. These practices must be backed up by a well managed Botulism vaccination program, weaning all calves down to three months at each muster, or seasonal mating of breeders, and a systematic and structured breeder culling program. Properties which have effectively implemented this management do not have major problems with native pasture quality, although they should not run cattle at higher stocking rates because they use such practices.

Some graziers questioned how long it would be sustainable to grain-feed cattle, since they are inefficient converters of grain to beef. Under conditions that currently exist, grain feeding will never be viable in the area, except as part of a supplement for weaners under 6 months of age. Currently, cattle are sent south to be grown out (ie.. in backgrounding country with good grasses) and then go to the feedlots. Each step in the process takes them closer to the meatworks and the final beef market or export port.⁶⁸

Different farming methods involving the use of improved grasses, may overcome some of these problems. While graziers noted that it is currently not economic to use such "new technologies", this could change as market conditions change in the future. However, under the wild rivers legislation, graziers noted that there is little opportunity to use future technology (eg. different ways of running cattle), as most of species of improved grasses are (or will be) banned, and strict vegetation clearing laws make this difficult. For example, buffel grass is declared to be a weed by conservationists, because it is an introduced species and uses a lot of nutrients.

There are enormous opportunities to grow forage crops such as leucaena, forage sorghum, corn/maize, with winter temperatures of 30 degrees allowing these crops to grow well 12 months of the year. However, to do so requires irrigation from March to October. Based on discussions with experts and land-owners, potential large scale water impoundment dam sites in the CYPLUS study area are few and far between. As is usually the case, most favourable sites lay up-stream of potential development areas.⁶⁹ These sites tend to be more remote from potential agricultural land due to the fact that the preferred soils are narrow "ribbons" of alluvial and levee formation

in the late wet season and the dry season, and low in energy. Generally the soils of Cape York Peninsula are grossly P deficient, 2 to 3 parts per million (ppm). For optimum cattle production 8 to 10 ppm of soil P is needed. Low soil P is the reason for P deficient pastures and low soil nitrogen (N) is the reason for low pasture protein. Fertilizing to raise soil P or N levels is uneconomic at present. However, providing P and N supplementation direct to the cattle in the form of licks is economic. In general, some large flood plains in the southern Gulf will have higher P levels than CYP.

⁶⁶ At some stage in the future it may be viable to fertilize, or to grow improved grasses, provided it is not over a vegetation area described as vulnerable.

⁶⁷ Based on discussions with graziers in the southern part of the Peninsula. See section 2.1 of this report for the results of the CYPLUS about carrying capacities within Cape York Peninsula.

⁶⁸ Note that the nearest meatworks is in Townsville. Similar operations in Cairns and Mareeba closed as viability decreased due to declining cattle numbers (eg. TB eradication program in the early 1980s), changing tenure, urban expansion and competition for real estate and union problems.

⁶⁹ The higher up such impoundments are, the greater the depth of water. Where the country is too flat, the water spreads too far.



causes.⁷⁰ There are also major geological constraints to getting water from these sites to where it could be used. Therefore, wet season on-property water harvesting from streams and on-property storage will be both necessary and eminently possible.⁷¹

The condition of the roads in far north Queensland is such that CYP is one of the few areas in the world without proper road access, with existing dirt roads sometimes sitting one metre below water during the wet season.⁷² The impact of these conditions on trucks makes for higher freight costs for diesel fuel, with inaccessibility during the 6 months of wet season causing the businesses to have to store diesel for six months of the year, with this greatly increasing costs.⁷³ For example, the roads from Kowanyama to Mareeba and from Kowanyama to Normanton (600km and 400km respectively) are all dirt roads.⁷⁴

The poor road conditions limit access to markets, which is also a major constraint on viability, which needs to be bulk transport to gain from cost efficiencies. Air access is restricted, with return flights to Cairns from Kowanyama offered four days per week at \$800. While most of these flights are for government employees, the average person finds this too costly. Graziers also rely on helicopter transport during the wet season, with approximately 100 hours at \$700/hour associated with the loss of roads. Graziers noted that while grazing (cattle) is currently the only real viable industry, this would be very different if adequate infrastructure was in place.⁷⁵

Lack of access to the economical electricity supply is a major deterrent on development within the region. The "rural power scheme" has failed to deliver electricity to much of CYP, consequently businesses rely on generators, and as a result face higher repair and maintenance costs.⁷⁶ One grazier noted that 18 years ago, to put 2 pumps in the river required electricity lines costing \$300,000 (approximately \$1,000,000 in today's dollars). Another grazier noted that their recent offer to pay \$1,000,000 for installing power lines in order to access electricity was rejected by the North Queensland Electricity Board (NORQUEB). While some people try to irrigate without it, the lack of electricity is a huge deterrent. Therefore, while some activities are permitted within a PA (eg. a piggery), they are less likely to be viable, with no electricity, being too far from the main rivers and prevented from boring down to access sub-artesian water.

⁷⁰ The few potential large dam sites within North Queensland that have been investigated lie mainly south of the Staaten River.

⁷¹ Based on personal communication with people with extensive knowledge of the Cape York Peninsula land use. As noted in an earlier footnote, water harvesting from streams into on-farm storages is preferred over vastly expensive "Govy" schemes. This is particularly so when one considers the cost of the spillway facilities required to pass the regular flood flows safely through on-stream dams.

⁷² In some instances (eg. main arterial roads or parts thereof) roads could be made of bitumen, whereas in other instances, a more realistic solution at the current time may involve ensuring that there is adequate drainage to minimize bogging.

⁷³ For example, graziers would need to store approximately 30,000 litres of diesel in November, and would not get more until mid April, or sometimes as late as late June.

⁷⁴ One grazier noted that efforts to realign the road is hampered by Native Title, where land owners are forced to negotiate with the Indigenous land owners via the State and local governments (Indigenous land councils take advantage of the prospect to earn money, as they are paid \$800 per person per day to look for artefacts).

⁷⁵ See section 3 for a discussion of infrastructure and the proper use of cost benefit analysis to determine its provision within remote areas of Queensland.

⁷⁶ Other graziers pointed out that little money has been spent on the rural power scheme in the central highlands since 1990s. Discussions with the Department of Infrastructure indicated that there is currently a significant project declared under the SDPWOE 1971 for a power line from Rockhampton to Conclurry, with this largely due to demand from mining companies.



As opportunities for profit arise, population will be attracted to the region. Over time, this will reduce the labour supply problems currently experienced within the region, causing labour costs to adjust downwards (*ceteris paribus*).

While there are fewer legislative restrictions within PAs, practical considerations may override this. For example, while cattle are still able to use the water in the main rivers, there are large beds of sand (which can extend from 100m to 2000m long) where water lies 15cm below the surface. Locals are required to apply for a permit if they wish to pump this water within a PA. The DERM requires property owners to submit a full property plan to dig holes and let the water keep running. However, this is only sensible to do in the HPA and nominated waterways, as elsewhere it is not much use because of soil conditions. In addition, it is not possible to have a pump on the bank of a river since one cannot have oil or fuel. Therefore, pumping can only be done via truck (in which case it is mobile). In one instance, the department insisted that a 2-inch pump coming out of a river bed that was 1 km wide and 15-20 feet deep was interfering with the flow of the river.

Permits are required to fence. If the fence needs to cross a nominated stream, a separate permit is required. Permits are required to put roads in place, with requirements for crossing a river such that if one comes in from a southern bank, the road must come in on the inside of a bend and the only place one can go out must be the inside of a bend again. In some instances, meeting these criteria are impractical, as the distance between two such bends may be anywhere from 1 km to 10 km. Likewise, bush roads require channelling on all sides of the road where the road is 12 ft wide. Concrete channels must be placed in a bed of sand so that the banks are not disturbed. All of these requirements significantly increase costs. For example, building a 20 kilometre fence would necessitate a legal road for accessing the fence for maintenance. Graziers noted that building such a fence which crosses say 8 creeks would add approximately \$80,000 to the initial fence cost of approximately \$4,000/km, representing a 100% increase in costs.⁷⁷

Cummings (2010) argues that most regional economies are supported mainly by agriculture, mining and fishing industries and that there are very few areas of Australia where tourism development has not depended on the infrastructure initially laid down by agricultural and other base industries.⁷⁸ He states:

"By and large, tourism opportunities are extremely limited. First the lack of infrastructure and remoteness adds cost penalties that mitigates against their development. Secondly, the reality is that the combination of natural environments of rainforest and reef in the Cape [York Peninsula] nowhere matches the intensity of those of the immediate Cairns area where infrastructure is available. It is unlikely that tourism will develop on a substantial scale in the Cape [York Peninsula] area in the foreseeable future."

Infrastructure is fundamental to development. The impacts of the wild rivers legislation on sustainable development are, to some extent, dependent on the level of existing infrastructure. To the extent that the legislation restricts future business opportunities, it will also inhibit the future development of infrastructure, since prospective revenue flows will be relatively lower. Hence there is a continuation of a cycle of low growth and lack of infrastructure.

Another major impediment to development is the VMA 1999. The report *Land Cover Change in Queensland 2007-08* provides the first full annual period since the Queensland government ended broad scale remnant clearing on 31 December 2006 under Vegetation Management Laws. Cape York Peninsula encompasses an area of 12,117,000 ha of which 93.5% was wooded vegetation cover in 2007, compared with 51% for Queensland. This difference in the relative base levels of

⁷⁷ This is based on channelling costs of \$8,000 per small creek, \$15,000 per larger creek and \$30,000 across a river.

⁷⁸ Bill Cummings is an economist who has been based in North Queensland for many years.



available cleared land is, in and of itself, a relative disadvantage of the operation of the VMA to developers and prospective developers within CYP.

In 2007/08, 2,870 ha of remnant vegetation were cleared on CYP, amounting to 2.34% of clearing in Queensland. The combined clearing of remnant and non-remnant land amounted to 0.03% on CYP, which is a relatively very low compared with comparable figure of 0.1% for Queensland, especially when combined with the fact that in the case of the latter, there is more available cleared land from which development opportunities can lie. Note that the CYP land area is approximately 7% of the Queensland total.⁷⁹ Statistics for Woody Vegetation Clearing by Subcatchment on Cape York (ha/yr) show that for all bar the Archer River where there was an increase of 15 hectares of clearing in 2007/08 over the previous year, the other 3 sub-catchments in Wild River declared basins showed a fall of 261 cleared hectares for the year. Such falls represent decreases of between 93% to 100%, depending on the subcatchment.⁸⁰

The cumulative impact of successive wild river declarations is that development opportunities across the entire region are negatively impacted.⁸¹ The more declarations declared within a particular region, the greater the costs associated with further prohibitions. This will have clear impacts on the ability of residents to earn income from the land. In particular, the ability of Indigenous groups to engage with the real economy will be further reduced.

4.3.3 Inconsistencies in the Implementation of the Wild Rivers Act

In addition to the likely impact on sustainable development opportunities, there are a range of inconsistencies in how the wild rivers legislation is implemented. Some of these inconsistencies could be avoided if:

- more scope existed and/or greater emphasis was placed on economic benefits to be derived from activities;
- any prohibitions or restrictions were based more on the latest “scientific evidence”; and
- greater focus was placed on assessing the impacts of particular types of activities, rather than prohibiting large categories of activities out-right (ie.. avoid over-generalising).

4.3.3.1 Treatment of Economic Benefits

Overall, the statutes related to resource management appear to treat the issue of economic benefit differently. In some cases, there is little emphasis on economic benefits, while others do allow for it.

For example, in applying for a vegetation clearing approval, under s22A of the VMA 1999, the applicant is required to present whatever information is necessary to secure confirmation of it being

⁷⁹ Wooded vegetation clearing by replacement cover shows that approximately two-thirds of this clearing is for mining activity, followed by 32% for pasture. Pasture includes “*woody vegetation clearing for grazing, woody thinning, fodder clearing, rural residential, future urban land use and privately owned plantations (ie. not replanted as plantations)*”. Source: Land Cover Change in the Cape York – Natural Resource Management Region, Table 5, DERM.

⁸⁰ See Land Cover Change in the Cape York Natural Resource Management Region, 2007-08, Table 3, Woody Vegetation Clearing by Subcatchment.

⁸¹ As noted in section 2, within the United States, only one quarter of one percent of rivers are designated wild river areas under the Wild and Scenic Rivers Act 1968.⁸¹ In Canada, approximately 11,000 km of rivers are designated as heritage rivers, In the case of the latter, no activities that are specifically prohibited on Canadian Heritage Rivers, as the program is not legislative, but voluntary. As noted in an earlier footnote, it is also important to note that Canadian Heritage Rivers are not necessarily “wild”, with several of them urban and some with impoundments. The latter are designated for their cultural values or role in Canadian history, rather than natural values.



for a "relevant purpose". For built infrastructure, the material presented must satisfy the assessment agency that the clearing proposal meets all of the elements under s22A(2)(d) of the VMA:

- The clearing is for establishing infrastructure;
- The infrastructure is built in nature;
- The infrastructure is necessary, and
- There is not suitable alternative site for the infrastructure.

The third criterion of "necessary" implies an imperative requirement or need. Economic benefit is not sufficient to demonstrate a development is necessary.⁸²

This is inconsistent with the application of the SDPWOA 1971 s.26 for which mining lease activities are allowed in nominated waterways if a mining lease is, or is included in a project declared to be a significant project and the EIS shows that among other conditions, the "*value of the natural resource is sufficient to warrant the grant of the lease*" over the nominated waterway.⁸³

The State Policy for Vegetation Management (21 October 2009) is based on a principle of "balanced decision-making" which states that:

*"Special consideration for significant community projects, such as a hospital or essential public infrastructure that has an aesthetic, conservation, cultural **or economic benefit** to a local or regional community or the State is appropriate to ensure that the benefit of the development is realised while minimising the environmental impacts."*

However, there appears to be little or no consideration given to economic benefit for development activities which do not fall within this category (ie. which are not significant community projects or essential public infrastructure.)

4.3.3.2 Public versus Private

Public jetties providing access to Indigenous land are treated differently to private jetties within HPA and nominated waterways, with the former exempt from the prohibitions on operational works for tidal work or work in Coastal Management Districts (CPMA s.104A).

Section 719 of the SPA 2009 notes that development for the purpose of public housing is exempt (ie.. no DA needed) and therefore the VMA 1999 doesn't apply. However, the construction of private housing outside urban areas is assessable and therefore subject to the VMA 1999.

4.3.3.3 Commercial versus Non-commercial

The test for what is "ecologically sustainable" should be based on an analysis of the many factors listed under the meaning of this term in the SPA 2009. It is a much more complex mix of factors than simply prohibiting a particular activity if it is for commercial purposes. For example, communal gardens are allowed in a HPA, but horticulture is prohibited.

⁸² Based on advice from DERM received by Balkanu (13 October 2008) regarding how the application of "a relevant purpose" under section 22A (2) (d) states that "*The word necessary implies an imperative requirement or need. Economic benefit is not sufficient to demonstrate a development is necessary.*"

⁸³ These other conditions include:

- the relevant natural values of the wild river, included in the PA, will be preserved
- it is not reasonably feasible to take the natural resource under the lease by underground mining



4.3.3.4 Size of the HPA Buffer Zone

The size of the riparian buffer zones are scientifically established, and this should be the basis on which areas for high protection are designated, as opposed to a “one-size-fits-all” approach making blanket prohibitions on certain activities (ie. anything within 1 km of a wild river or a nominated waterway).

For example, the State government declared a 1km HPA buffer on the Archer River although the State had a consultants report which recommended a 500 m buffer.⁸⁴ The government recognized that the riparian width is an average width of 250m from the watercourse bank. They identified an additional 250m wide buffer of terrestrial vegetation as representative and necessary for preservation (ie. total of 500m) yet still declared a 1km HPA either side.⁸⁵

4.3.3.5 Appropriate Categorisation of Activities

The Wild Rivers declarations prohibit all aquaculture in HPAs and nominated waterways of PAs. This fails to distinguish the various types of aquaculture and the varying degrees of environmental impact resulting from each type of activity. To apply the same strict regulation regardless of these differing impacts may prevent sustainable and highly viable activities from occurring in wild river areas.

The *Fisheries Act 1994* sets out the following definitions:

- *Aquaculture* means the cultivation of live fisheries resources for sale other than in circumstances prescribed under a regulation; and
- *Aquaculture furniture* means a cage, rack, tank, tray or anything else used, or capable of being used, in aquaculture or to assist in aquaculture.

To the extent that different methods of aquaculture have differing impacts on the environment, the legislation which regulates that activity should take these into account, so that sustainable development opportunities are not unnecessarily prohibited.

4.3.3.6 Environmental Impacts to be based on Scientific Evidence

Secondly, prohibitions or restrictions on activities should be based on their likely impact, using the latest science. Where technology has changed to significantly reduce impacts, the legislation should allow for these activities to be assessed and approved if the development is ecologically sustainable.

In assessing what is ecologically sustainable, it is interesting to note that natural floods do many times more damage in terms of shifting soils than many activities which are prohibited under the legislation. It is important that regulators do not adopt preservation values instead of conservation values. In the case of the former, the focus is on keeping the environment as it currently is. In the case of the latter, the environment is understood to be dynamic and continually changing. One can divert the way it changes and with careful monitoring, can allow the land to be productive at the same time.

⁸⁴ Documents ascertained by Balkanu under the *Freedom of Information Act 1992* and Environmental Hydrology Associates (EHA Pty Ltd) report *Review of submissions relating to the hydrology and ecosystem functions of 'Bauxite Springs' on and in the vicinity of Bertiehaugh Station, Cape York Peninsula, 4 December 2009* which states “There appears to be no clear justification of the magnitude of the HPA setbacks.”

⁸⁵ In other cases, there are declared wild rivers which have 50m average riparian vegetation (eg. Running Creek in the Stewart Basin in the Gulf declared in 2007), such that a 1 km HPA is excessively restrictive, particularly in light of the above discussion about productivity and viability.



4.4 Imbalance in Addressing Toward Q2 Goals

The same imbalance between the competing objectives of sustainable development, is also reflected in the inconsistency of the Wild Rivers legislation with certain goals specified in the Queensland Government's overarching policy framework *Towards Q2: Tomorrow's Queensland*. Notwithstanding the fact that there will inevitably be a certain degree of tension between competing goals, it is important to recognise the extent to which some policy objectives have been compromised by an ideology favouring preservation over conservation. In particular, *Towards Q2: Tomorrow's Queensland* puts forward the following policies aimed at meeting a 2020 Target that "Queensland is Australia's strongest economy, with infrastructure that anticipates growth":

- "A diverse economy powered by bright ideas:
 - *Putting all our eggs in one basket isn't smart; it makes our economy and people's jobs vulnerable;*
 - *Research shows about 70 per cent of our economic growth is the result of productivity improvements – using resources in smarter ways to produce more.*
 - *We know innovations drives economic and jobs growth and gives business a competitive edge."*

- "...we must create a culture that champions innovation. The Queensland Government must play its part by:
 - *Investing in research and development and innovation infrastructure and incentives;*
 - *Facilitating collaboration between research institutions and industry, and among firms that can learn from each other;*
 - *Connecting early-stage knowledge businesses with the finance they need to grow;*
 - *Reducing red tape which can get in the way of good ideas."*

- "We need industry and community members to create their own success too. This might be by investing in new technology or by collaborating with research organisation to find ways of operating smarter.

- "Having the right infrastructure – such as roads and other transport links – in the right place and working efficiently enables people to do their jobs to the best of their ability."

These principles or policies are no less relevant in remote and rural regions than they are for South East Queensland. The implications of the Wild Rivers legislation discussed above are clearly at odds with these stated policy objectives. While the economic activities undertaken in CYP will be determined by the existing markets, failure to address these policies objectives in CYP will only impede its economy from reaching its potential over time.



5 Indigenous versus Non-Indigenous Use

The DERM has undertaken the following initiatives in order to promote Indigenous social and economic goals:

- Under that *Cape York Peninsula Heritage Act 2007* (CYPHA), additional reserves of water to help Indigenous communities to achieve their social and economic aspirations.⁸⁶
- Under the CYPHA 2007, there are Indigenous community use areas which are aimed at allowing some subsistence level Indigenous activities to get around provisions of the VMA 1999;
- The Land Tenure Resolution Program has been running for approximately 10 years, with considerable tracts of land handed back to the Indigenous communities on Cape York Peninsula, ensuring that "traditional owners" are given formal ownership of the land.⁸⁷ As at 2009, 4 pastoral lease properties have been handed back, with 13 planned in total.⁸⁸ In late May, 2010, the fifth jointly owned and managed Indigenous national park was created, making for a total of 274,635ha across Queensland. The state's newest national park, Alwal National Park, is a 42,500ha block west of Cooktown. In a "historic joint-use agreement", the land will be jointly managed with traditional owners.⁸⁹ As a result of the handovers, ILUAs with the State government are entered into and the land is handed over to a Land Trust. Fifty percent of the land becomes National Park (Cape York Peninsula Aboriginal Plan) and 50% becomes Indigenous freehold land.

While any initiative which promotes social and economic development for Indigenous communities is worthwhile, it is important to recognise that these Indigenous specific programs are not likely to be sufficient in and of themselves to bring about significant long-term gains in terms of wealth creation and job opportunities for Indigenous people.

It is imperative that one recognise the importance of preserving a capacity for sustainable development across the entire region, and with that, the important contribution to that sustainable development to be played by both non-Indigenous and Indigenous groups if Indigenous communities are to eventually prosper. Over time the dependence of Indigenous well-being on non-Indigenous development and growth may decline.

To the extent that the initiatives listed above still only facilitate subsistence level activities, the prospects for new development and hence greater economic and social well-being will be limited. To the extent that such initiatives occur in a vacuum of no changes as far as the WRA, the VMA and the WA are concerned, such excessively restrictive land management regulations on such vast areas of land will result in a failure to bring about the level of economic development necessary for "closing the gap".

⁸⁶ While no WRP has been undertaken for CYP, the Mitchell WRP notes that 5000 ML/a of water have been reserved for the purpose of helping Indigenous communities achieve their social and economic goals.

⁸⁷ Much of this has occurred within the last four years.

⁸⁸ For example, the McIlwraith Range saw 160,000 ha created as National Park and 158,358 ha as Indigenous freehold land. Based on personal communication with a representative of the Department of Environment and Resource Management.

⁸⁹ A former 37,000ha cattle property known as Kalinga has also been handed back under the agreement to include a 2700ha nature refuge. Cape York cattle station owner Steve Trezise said it was part of a big picture. "The grand plan is to link Lakefield national park to Laura basin and out to the spine of Great Dividing Range," he said. "But hopefully the better cattle stations can stay pastoral. It is a way of life (that's) dying out. Sourced: The Courier Mail, Peter Michael, 27 May, 2010.



6 Conclusion

This report demonstrates that claims that there is “no evidence to support development restriction claims” is **incorrect** and that “there have been 100 applications all of which have been approved” is **misleading**. To the extent that prohibited activities are deemed not be applications and based on the fact that applications are required for fairly minor works (eg. clearing to build a fence), the number of applications and approvals is of limited use. Indeed, it is impossible to know the number of foregone opportunities by looking at approval data.

Research undertaken by the SRC has indicated both a high degree of frustration and despair by Indigenous land-owners who rely on the land to derive their income. Much of this frustration is also shared by the non-Indigenous communities of the Peninsula. In addition, our consultations with those who, while not reliant on the land for their income, but instead have a long experience with land management and conservation issues, suggests that the wild rivers legislation is a “tipping point” for what has been a long and gradual process of land management regulation shifting towards the “preservation” end of a spectrum – a spectrum which at one extreme has “preservation” values and at the other, rampant development.

This report has demonstrated conclusively that, in implementing the wild rivers legislation (which operates through other statutes), the concerns raised about a lack of balance between well-being and poverty reduction on one hand and ecosystem services and biodiversity on the other are legitimate. It is simply incorrect for the State Government to continually claim that its actions do not impede sustainable development, with the operative word here being “sustainable”. A case study of an existing development, to grow Pongamia (*Milletia*) trees and harvest their seeds for oil in order to produce biodiesel fuel is used to demonstrate one example of a sustainable new development opportunity that would be impeded by the wild rivers legislation.

The challenge for the Peninsula (and the Gulf) lies in the need to deal with extreme seasonality, whereby 80% of the rainfall occurs within the summer months. This entails a regime where water storage and use of overland flow waters is fundamental to productivity. Within this context, the Wild Rivers declarations thwart this challenge, by prohibiting many activities within the most productive land areas (ie. HPAs and nominated waterways) and restricting the scale of activities in the less productive areas (PAs).

The nature of the social and economic assessments undertaken for water resource planning were examined, with the SRC questioning whether the underlying assumptions allowed for a meaningful determination of “future water requirements”, and consequently a meaningful balance between the need for development and environmental protection. Some of the fundamental assumptions in relation to water resource planning were highlighted, and in particular, the SRC challenges the notion that limiting the take to less than 1.5% of run-off is necessary for sustainability. Such water resource planning underpins the regulations set out in the WRA.

The SRC's assessment of the various statutes which operate within wild river areas and their implementation is that **too little emphasis is placed on economic benefits from activities**. The obvious exception to this is mining, which accounts for two thirds of the “applications” which were approved and, perhaps not surprisingly, two thirds of the replacement land cover following clearing.

The result of this is that a very small population is at risk of not having their interest and rights to earn income from the land protected, and indeed, facilitated. While recognising the importance of protecting the environment, the apparent lack of parliamentary scrutiny in this particular instance has paved the way for either:

- the political process to be at risk of being captured by environmental lobby interests; or



- alternatively, one department making land use regulations which do not provide a balance with the need to derive income from the land and increase wealth and well-being.

It is unjust for the strong opposition from some Indigenous groups and non-Indigenous groups affected by wild river declarations to be ignored on the basis of their political expediency or lack of adequate representation within the democratic process.⁹⁰

The importance "good science" and "wise use" in actually bringing about ecological sustainability cannot be overstated. The SRC maintains its position that the wild rivers legislation does and will continue to impede sustainable development. The extent of this negative impact is exacerbated by both other statutes (such as the VMA 1999 and the *Water Act 2000*), as well as successive governments' failure to provide adequate levels of basic infrastructure to this region.

⁹⁰ For a more in-depth explanation of the historical and political factors leading to the enactment of the *Constitution Act Amendment Bill 1921*, the 1992 Electoral and Administrative Review Commission (EARC) review of Parliamentary committees and the subsequent *Parliamentary Committees Act* passed in 1995, see Parliamentary Education Services, *Abolition of the Upper House* (updated March 2001), Factsheet 39, Information on Parliament and Government in Queensland.

Note that the wild rivers declarations are not subordinate legislation in terms of the *Statutory Instruments Act 1992* (SIA) and consequently, operate outside the scrutiny of State Parliament. In Queensland the making and review of Subordinate Legislation is governed by three Acts: the *Statutory Instruments Act 1992*, the *Parliament of Queensland Act 2001* and the *Legislative Standards Act 1992*. The Goss Government's policy intent behind this requirement was that "costs and benefits" should be identified in terms, not only of the general community and business, but also special interest or minority groups.



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Water Act 2000

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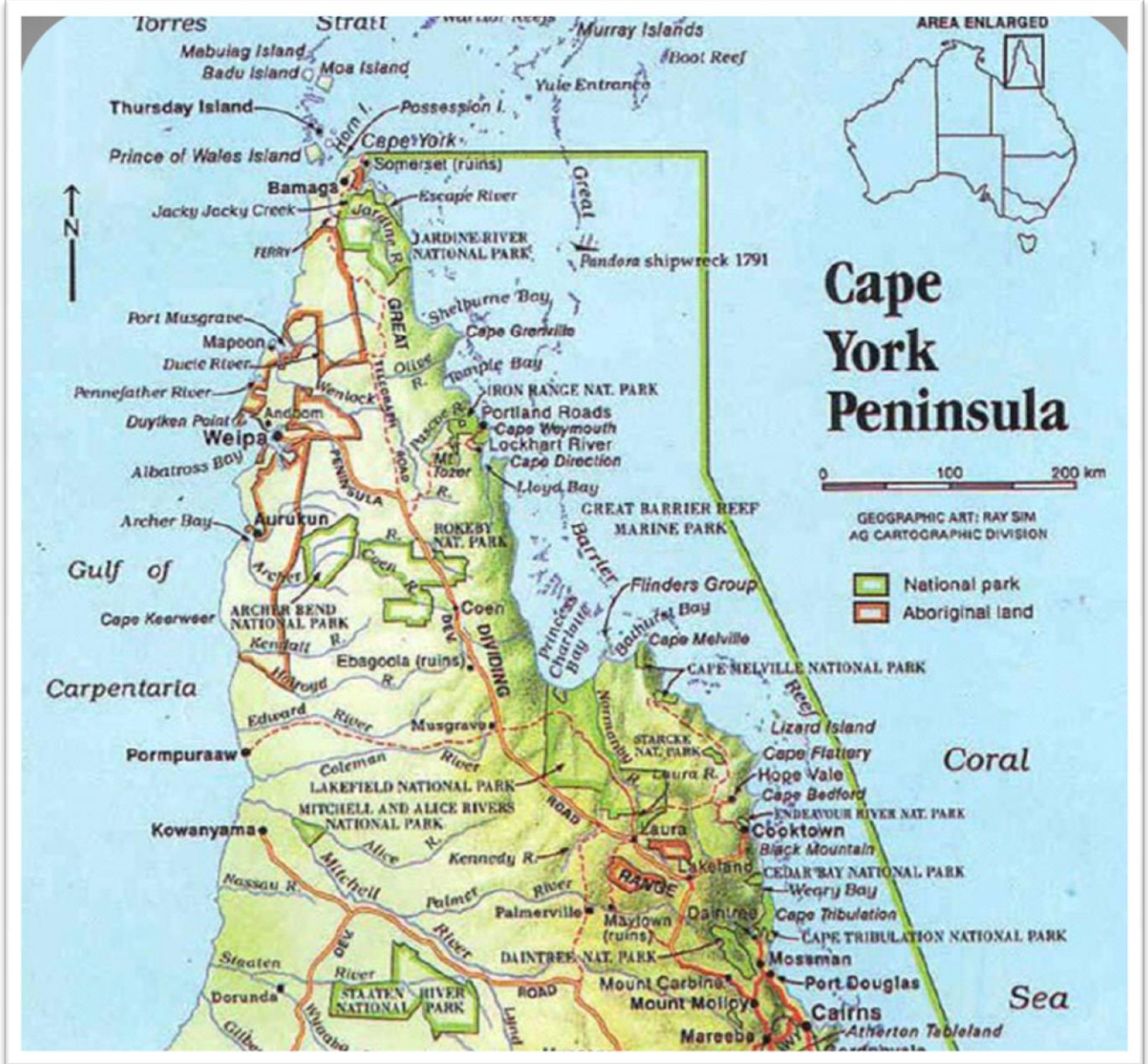
Legislative Standards Act 1992

National Parks and Wildlife Act 1974 (NPW Act)

Wild and Scenic Rivers Act 1968 (US Act)



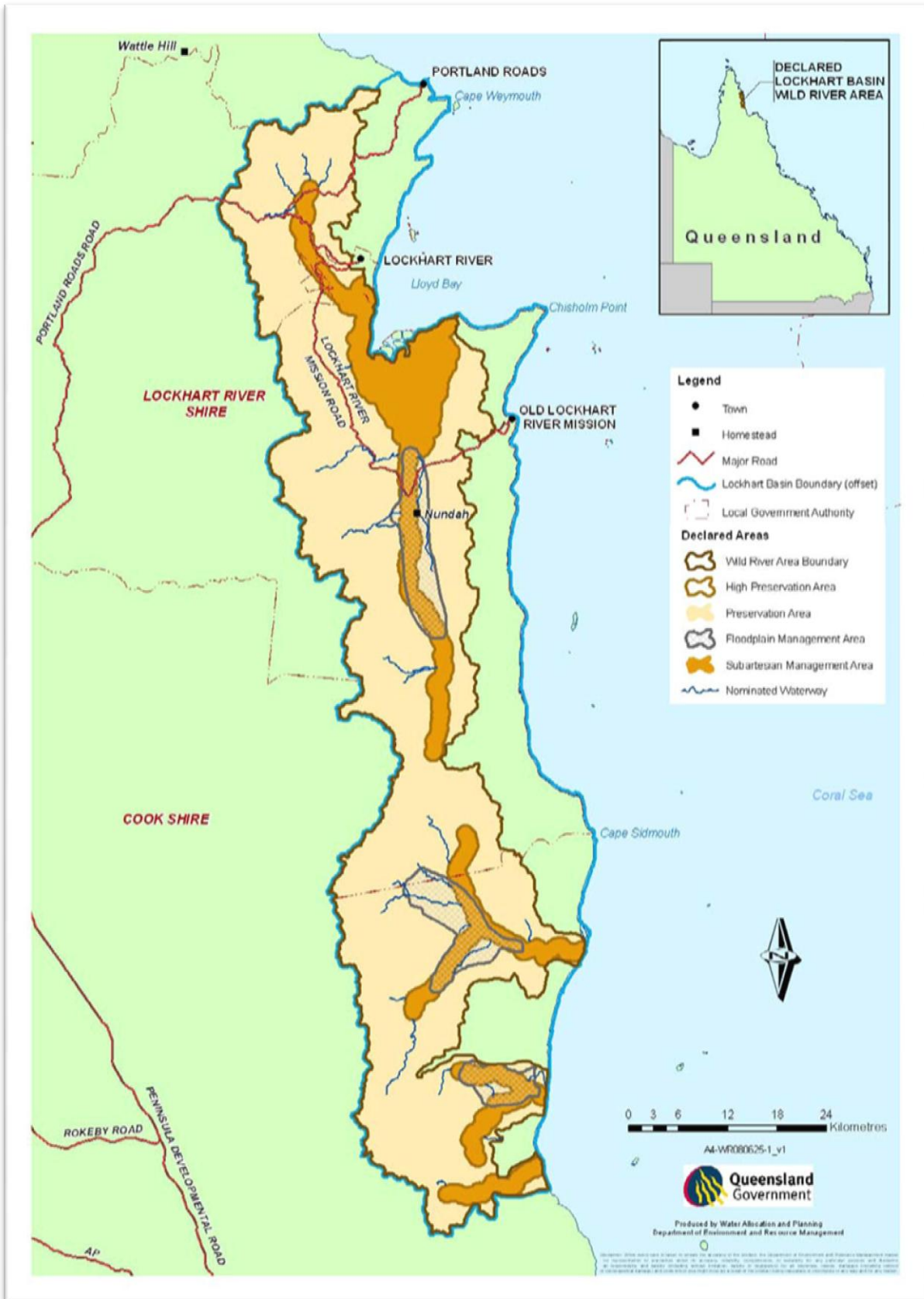
APPENDIX A – CAPE YORK PENINSULA⁹¹



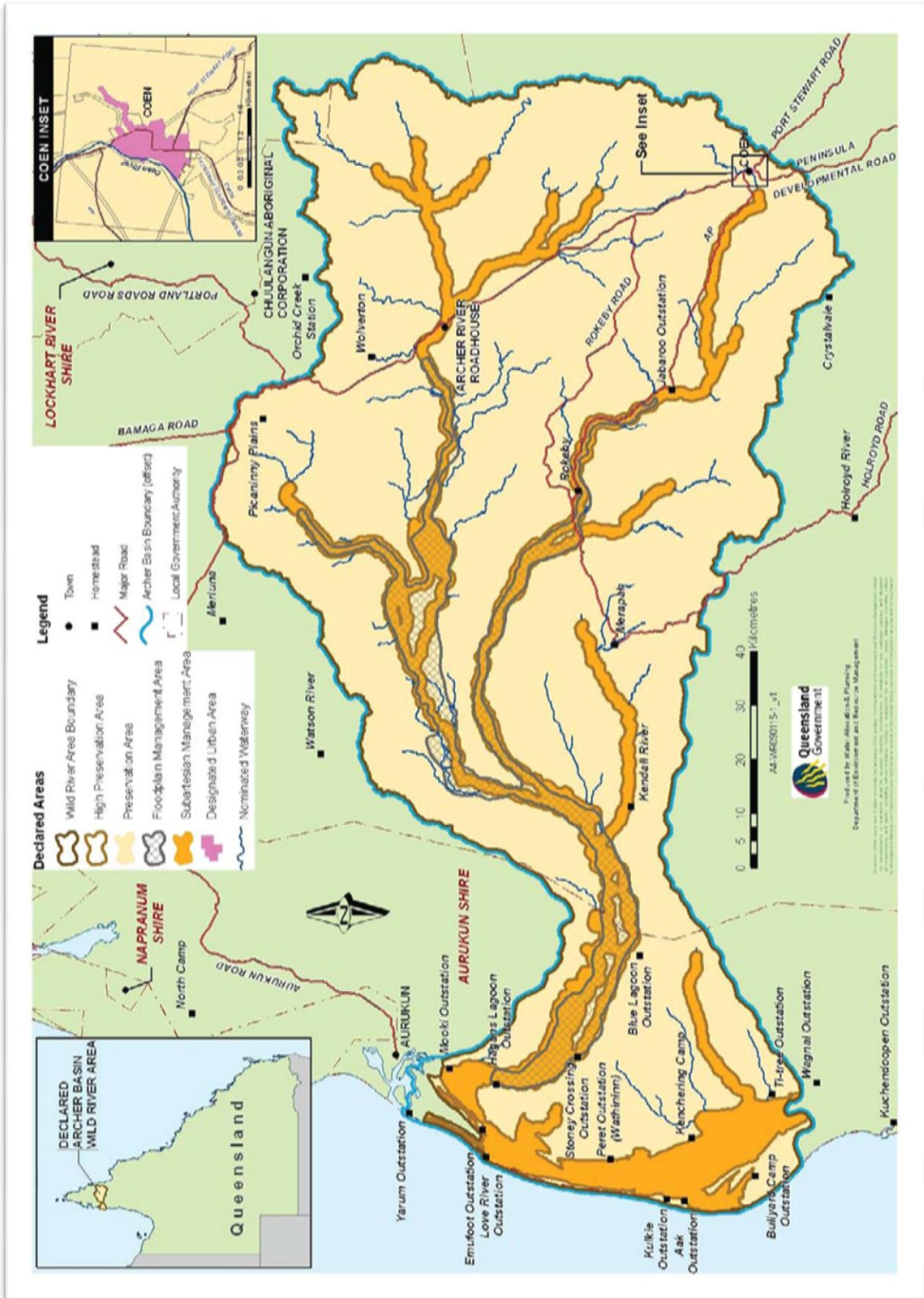
91 Map sourced from http://colnzblog.blogspot.com/2007_07_01_archive.html.



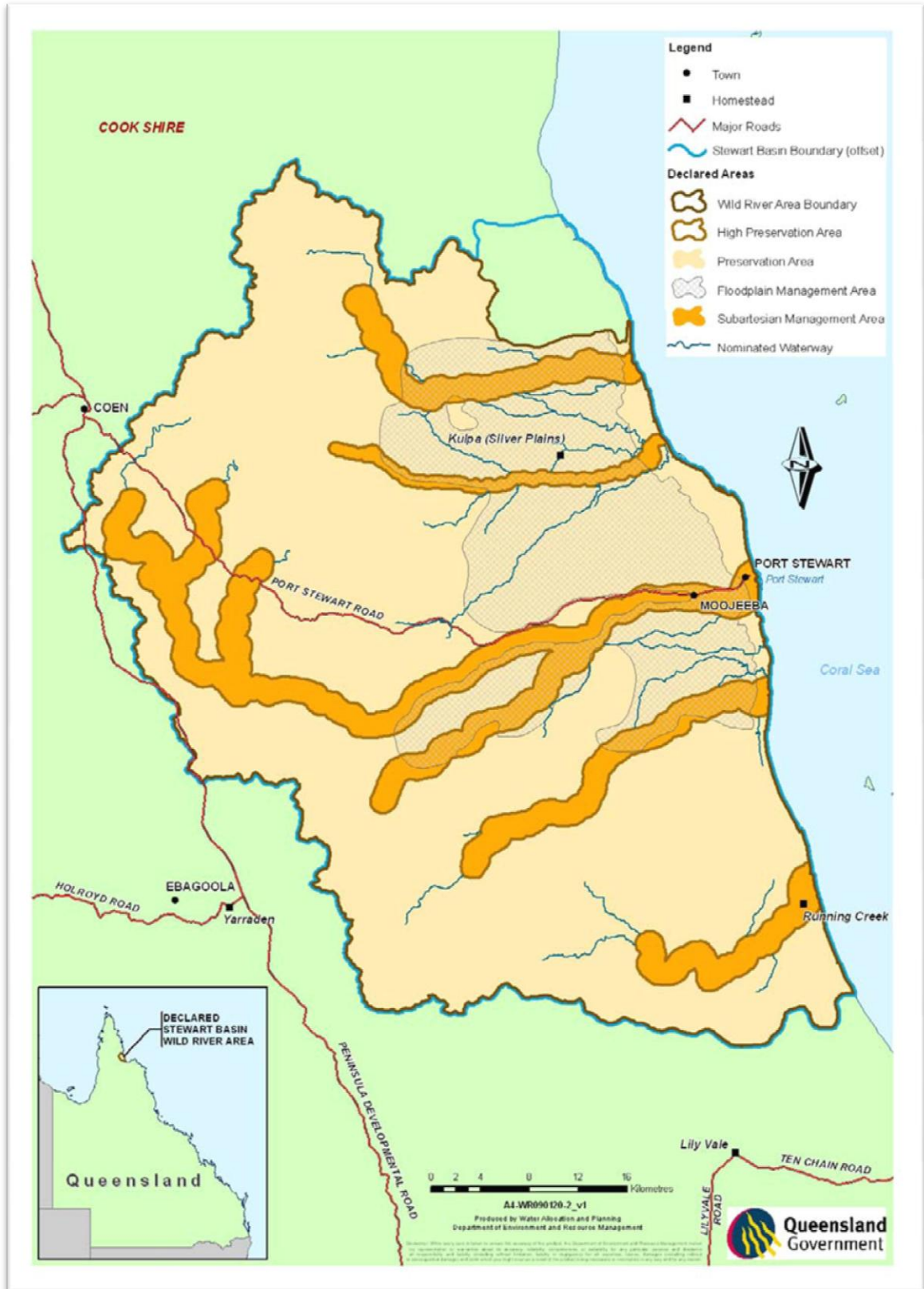
APPENDIX B – DECLARED BASINS



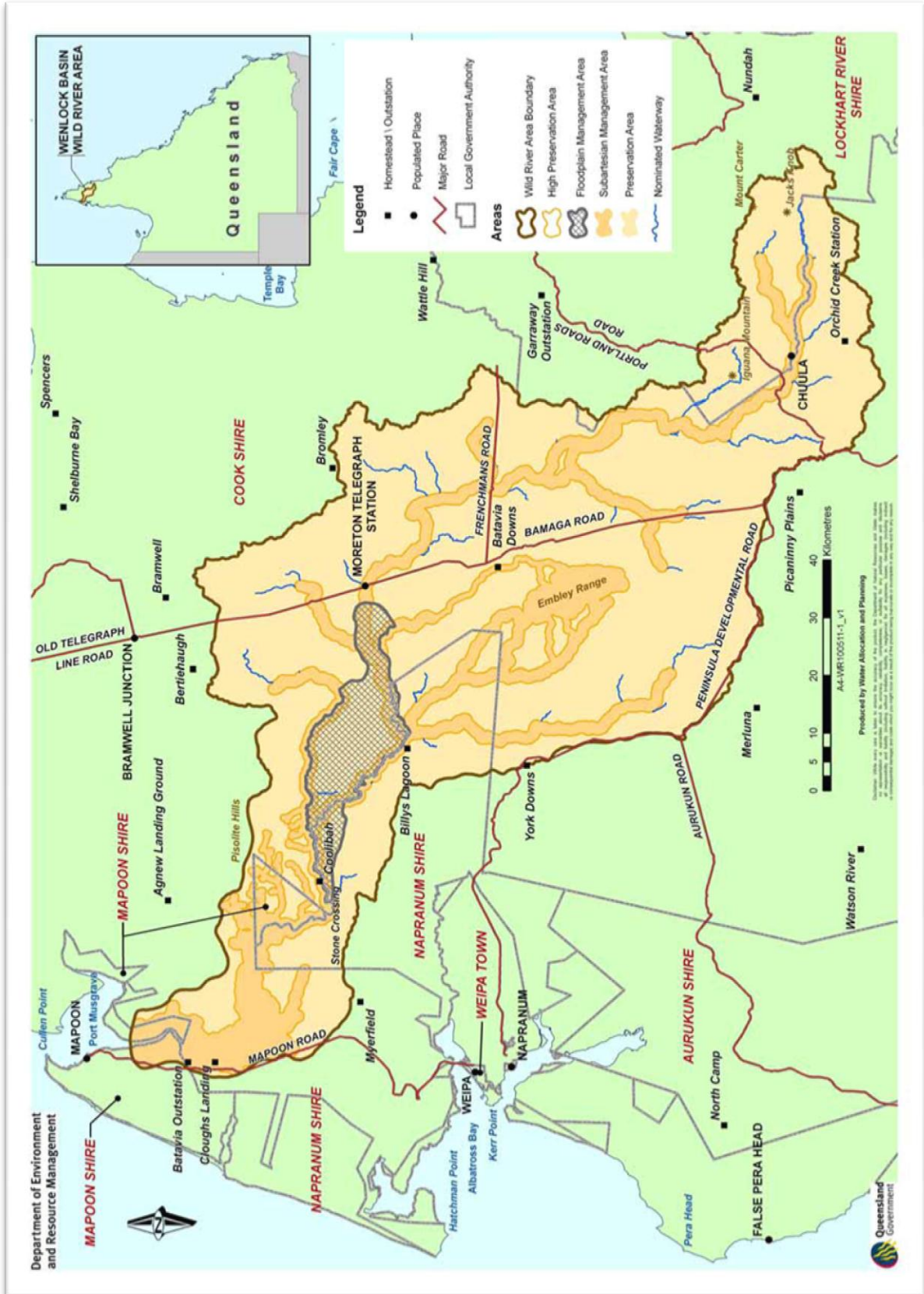
Lockhart Basin Wild River Area
Source: Lockhart Basin Wild River Declaration 2009



Archer Basin Wild River Area
Source: Archer Basin Wild River Declaration 2009



Stewart Basin Wild River Area
Source: Stewart Basin Wild River Declaration 2009



Wenlock Basin Wild River Area
Source: Wenlock Basin Wild River Declaration 2009



APPENDIX C – ACTIVITIES PROHIBITED OR RESTRICTED WITHIN WILD RIVER AREAS

4.3.1.1 Activities Prohibited Outright

In essence, most prohibitions within wild river areas apply within high preservation area (HPAs) and nominated waterways within preservation areas (Pas). Where overland flow water is relevant, the relevant areas are HPAs and flood management areas (FMAs). Within these areas, the following activities are prohibited or severely restricted to non-commercial activities or residential complexes. They include:

- No taking of water or interference with the flow of water in a watercourse, lake or spring (in effect, no dams or pumping);
- Can only use quarry materials if they are for specified works (eg. roads, pipelines) or residential complexes (*Water Act 2000*) provided that there is no alternative off-stream source within a reasonable distance;
- No allocation of quarry material within a wild river area (*Coastal Protection and Management Act 1995*); (ie. new off-stream quarry pits allowed within HPA if for specified works or residential complexes);
- Operational works which take or interfere with water (see table 2);
- All operational works which take overland flow water (other than those for stock or domestic purposes), even if HPA overlaps with a FMA (ie. no irrigation);
- All operational works associated with waterway barrier works (eg. dams, weirs, bunds, culverts) (*Fisheries Act 1994, s.76DA*);
- All operational works for tidal work or work in Coastal Management Districts (*CPMA s.104A*) in wild river areas and declared fish habitat areas, other than for specified works (eg. desnagging, earthworks, public jetties providing access to Indigenous land)
- All building and operational works in fish habitat areas (*Fisheries Act 1994, s.76DC*) (eg. no aquaculture);
- All operational work in the wild river area which leads to the removal, destruction or damage of marine plants, other than for specified works or work that is a necessary and unavoidable part of installing or maintaining works or infrastructure required to support other development for which a development permit is not required or, if a development permit is required, the permit is held or has been applied for (ie. no operational works for most new development which removes, damages or destroys marine plants);
- Granting of mining tenement, other than low impact exploration permits outside streams or mining leases, with no exploration within 100 m of any stream in a HPA or nominated water way (*Mineral Resources Act 1989*)⁹²
- Mining lease activities on the surface of land in a HPA (*Mineral Resources Act 1989*) (ie. only underground mining to a minimum safe depth, unless declared a project of state significance under *State Development and Public Works Organisation Act 1971 SDPWOA*);

⁹² Low impact methods include seismic surveys and drilling, but not bulk sampling.



- Most new Environmentally Relevant Activities (ERAs) (eg. chemical storage, manufacturing plan and waste disposal)⁹³ Note that many commercial (eg. motels, shops, sports grounds, packing sheds and tourist resorts) and industrial (eg. warehouses and small factories) are ERAs.
- Any ERA that relates to development in waters in the wild river area that is for an extraction ERA (unless the application is accompanied by an allocation notice);
- Any ERA *other than* for sewage, water treatment, dredging, extraction or screening (if activity is low impact) carried outside waters and is for specified works or residential complexes; crude oil or petroleum product storage if the activity is for residential complexes can be carried out outside a designated urban area and any exempt ERA in a designated urban area.⁹⁴ (Note this leaves a total of 13 ERAs able to be done within a designated urban area, with all of these low scale activities.)
- Any ERAs for which there is a viable location for the development outside the HPA and which are unable to comply with Part 10 and Part 3 of the WR code (*Environmental Protection Act 1994*).
- All assessable development that is operational work that is the clearing of native vegetation and is not for a relevant purpose under the VMA s.22A. This latter includes *any purpose other than*:
 - necessary to control non-native plants or declared pests; or
 - to ensure public safety; or
 - for establishing a necessary fence, firebreak, road or vehicular track, or for constructing necessary built infrastructure, (each relevant infrastructure) and the clearing for the relevant infrastructure can not reasonably be avoided or minimised; or
 - a natural and ordinary consequence of other assessable development for which a development approval was given under the repealed Integrated Planning Act 1997, or a development application was made under that Act, before 16 May 2003; or
 - for clearing of encroachment;
 - in an urban area under the *Urban Land Development Authority Act 2007*; or
 - for clearing regrowth vegetation on freehold land, Indigenous land or leases issued under the Land Act 1994 for agriculture or grazing purposes, in an area shown as a registered area of agriculture on a registered area of agriculture map in a wild river HPA.

Note that, unlike PAs outside of nominated waterways, clearing “for thinning” is not considered to be a “relevant purpose”. This is particularly problematic, with timber thickening a major problem since the floods of 1974. In some areas, such thickening can choke out grasses. Indeed, it is within HPAs and nominate waterways that thinning activities would yield the greatest results.

⁹³ Part 5 of the wild rivers code is used to assess non-ERA development which includes:

- material change of use of premises (eg. rezoning of land) and
- operational work associated with reconfiguring a lot (eg. doing earthworks for an easement).

Note that a required outcome for both of these developments is that “no pollutants are released from the activity”, for which the possible solution PS 8. states “No solution provided”. The applicant must demonstrate how it meets the required outcome.”

⁹⁴ Designated Urban Areas align with the local government urban areas within planning schemes. Exempt ERAs within designated urban areas include crematoriums (ERA 14), motor vehicle workshops and what were previously called level 2 ERAs (of which 20 out of 184 ERAs are level 2) excluding the 7 ERAs listed in Part 3 of the Code. (Those excluded ERAs from Designated Urban areas which are therefore prohibited ERAs within those areas are (Aquaculture (ERA1), Cattle feed lotting (ERA 2), Pig farming (ERA 3), poultry farming (ERA 4), Extraction (ERA 20), Screening (ERA 22) and Asphalt Manufacturing (ERA 59).



Under the Sustainable Planning Regulation (Schedule 3, Part 1, Table 4, Item 1), clearing of native vegetation is classified as assessable development, unless one of the exceptions contained in Schedule 24, Parts 1 & 2 apply. If clearing can fall within one of the exceptions, then no development application and assessment will be required and the clearing can proceed, even within a Wild Rivers high preservation area, without a development permit. It is worth noting that the exceptions contained in Schedule 24 will not be particularly helpful in most development scenarios.

(Therefore it is this classification of native vegetation clearing as assessable development that brings into effect the clearing restrictions under the Wild Rivers Code, as assessable clearing has to be assessed against the Code. Note that restrictions on vegetation clearing are one of the major factors restricting new development, with any activity not meeting the above "criteria" prohibited. Applicants must submit a property development plan to request approval outside of these criteria. Statistics for Woody Vegetation Clearing by Subcatchment on Cape York (ha/yr) show that for all but the Archer River where there was an increase of 15 hectares of clearing in 2007/08 over the previous year, the other 3 subcatchments in Wild River declared basins showed a fall of 261 cleared hectares for the year. Such falls represent decreases of between 93% to 100%, depending on the subcatchment.⁹⁵

- Master planned areas (No master planned areas exist in CYP, therefore little impact);
- Fish hatcheries and commercial fishery production facilities⁹⁶ (no aquaculture);
- Agricultural activities (eg. cultivating or disturbing the soil, or using the land for horticulture or viticulture).⁹⁷ (No commercial development from new crop areas); and
- Animal husbandry activities (eg. crocodile farms, emu farms and lamb feedlots)⁹⁸ (No commercial development from new activities).

⁹⁵ See Land Cover Change in the Cape York Natural Resource Management Region, 2007-08, Table 3, Woody Vegetation Clearing by Subcatchment .

⁹⁶ Note that aquaculture becomes an ERA (and subject to Part 3 of the WR code) when:

- the total area of impoundments is 5 ha or more and no wastes are released to waters;
- all size impoundments where wastes are released to waters.

⁹⁷ Note agriculture does not include:

- growing crops or products for the domestic needs of the occupants of the land;
- baling of cutting pasture;
- broadcasting seed to establish improved pasture;
- forestry activities;
- improving pasture using low impact soil disturbance methods provided neither high nor moderate risk pasture species are being used;
- planting, gathering or harvesting a crop of pasture or grain species provided the pasture or grain species is only for animal feed and is neither high nor moderate risk pasture species.

⁹⁸ Animal husbandry activities as defined in the WRA 2005 means establishing a feedlot, piggery or dairy or breeding, keeping, raising or caring for animals for commercial purposes, that:

1. rely on prepared, packaged or manufactured feed or irrigated or ponded pastures;
2. are kept in a pen, yard, enclosure, pond, cage, shed, stables or other confined area or structure.

It does not include aquaculture; ERAs; grazing; raising livestock for domestic needs of the occupants of the land; or keeping livestock (eg. horses) necessary for working the land; giving livestock supplementary feed, either to maintain their survival or improve its fertility, nor to prepare it for sale if it is predominantly reliant on native or improved pasture for feed.



4.3.1.2 Restrictions on Activities in PAs

Since most commercial activities are prohibited within HPAs and nominated waterways (or FMAs in relation to overland flow water), this leaves PAs or designated urban areas as the regions within development may occur.⁹⁹ Restrictions existing within PAs or designated urban areas include:

- No decisions taken by assessment agencies which would increase the total volume of water available to be taken in a wild river area;
- Operational works prohibited in PAs if they interfere with the flow of water in a nominated waterway and is not a dam or weir;
- Operational works can take overland flow water (provided they are outside a FMA) and can interfere with overland flow water, provided required outcomes are met in Section B, Part 7 of the wild river code.
- Extraction of rock or other material (ERA 20) in-stream unless an allocation notice is held (where this new allocation notice can only be issued for specified works and residential complexes; extraction for other purposes prohibited);
- New off-stream quarry pits in PAs for any purpose subject to assessment (ie. under the *Water Act 2000*, s 280, quarry material for the proposed allocation must be used for specified works or residential complexes; under the CPMA, operational works must be for "specified works" complying with the wild rivers code);
- All assessable development that is operational work that is the clearing of native vegetation and is not for a relevant purpose under the VMA s.22A. The list below encompasses those exceptions within HPAs and nominated waterways with some additional ones, such that it *includes any purpose other than*:
 - a significant project under the SDPWOA 1971, s.26 or
 - necessary to control non-native plants or declared pests; or
 - to ensure public safety; or
 - for establishing a necessary fence, firebreak, road or vehicular track, or for constructing necessary built infrastructure, (each relevant infrastructure) and the clearing for the relevant infrastructure can not reasonably be avoided or minimised; or
 - a natural and ordinary consequence of other assessable development for which a development approval was given under the repealed Integrated Planning Act 1997, or a development application was made under that Act, before 16 May 2003; or
 - for fodder harvesting; or
 - for thinning; or
 - for clearing of encroachment; or
 - for an extractive industry; or
 - for clearing regrowth vegetation on freehold land, Indigenous land or leases issued under the Land Act 1994 for agriculture or grazing purposes, in an area shown as a registered area of agriculture on a registered area of agriculture map in a wild river HPA.

Once again, restrictions on vegetation clearing are one of the major factors restricting new development within PAs, with any activity not meeting the above "criteria" prohibited. Applicants must submit a property development plan to request approval outside of these criteria. See comments made in the previous section regarding exceptions where vegetation clearing is not assessable.

Note also that while clearing for thinning purposes is allowed within PAs (outside of nominated waterways), this area is the poorer quality country, making such practices relatively less worthwhile.

⁹⁹ Note that there are no designated urban areas in the proposed Wenlock wild river area.



- Master planned areas (again, little impact since there are no master planned areas);
- Any ERA which is not permitted within a designated urban area (approximately 93% of ERAs) would be restricted to the extent that they would need to meet “for a relevant purpose” requirement of the VMA, which would be difficult for most ERAs.;¹⁰⁰
- Agricultural activities if high risk species are prohibited within PAs (no assessment is required if using low risk species, but assessable using moderate risk species).¹⁰¹

4.3.1.3 Activities Which Are Assessable (ie. may receive development approval) or Exempt

- Some dredging (removal of quarry material and placement or disposal of spoil) under dredge management plans prepared by persons (which may include a government entity or port authority) (CPMA 1995, s.93);
- Exploration or mining leases in HPA (other than watercourse and lakes) using low impact activities (see definition MRA 1989 s.482), or to all HPA and nominated waterways using only limited hand sampling techniques;
- Mining lease activities not carried out on the surface of land in HPA;
- Mining lease activity is allowed in a nominated waterway if mining lease is, or is included in a project declared under SDPWOA 1971 s.26 to be a significant project and the EIS shows:
 - the relevant natural values of the wild river, included in the PA, will be preserved
 - it is not reasonably feasible to take the natural resource under the lease by underground mining and
 - the value of the natural resource is sufficient to warrant the grant of the lease over the nominated waterway.

¹⁰⁰

In total there are 184 ERAs, where different scale operations are counted as separate ERAs. An activity is environmentally relevant if it results in the release of a contaminant or has the potential to cause harm to the environment. ERAs currently include industrial, commercial, mining, petroleum, gas, intensive animal and municipal activities. If an activity is listed as an ERA, it requires approval before it can be undertaken and a payment of a fee.

See the information sheet *Summary of Annual Fees for Environmentally Relevant Activities (ERAs)*. for a list of ERAs. It provides the Annual Emissions Scores (AES) for each type of activity, along with the fee and the administering authority. For details about level 1 and level 2 ERAs, see *Environmental Protection Regulation 2008 – Regulatory Impact Statement for SL 2008 No. 370*, Appendix 2. Twenty of the total 184 Chapter 4 activities are Level 2 ERAs, with these being activities undertaken on a very small scale.

Prescribed local governments are exempt from paying fees under s143 of the EP Reg.

¹⁰¹

The Wild Rivers and Other Legislation Amendment Act 2006, notes that the level of risk relates to the invasion of aquatic environments, however, the SRC was unable to find any list referencing what species were considered high risk.



The Coordinator-General may declare a project to be a significant project for which an EIS may or may not be required, based on whether the project meets one or more criteria as set out in SDPWOA 1971 s.26. A project cannot be declared significant if it will result in broad scale clearing for agricultural purposes. Significant projects are highly unlikely to be declared in CYP due to the small population and environmental issues.¹⁰²

- Renewal of mining claims;
- Level 2 petroleum activities, provided they are not within 200 lateral metres of a watercourse or lake in a HPA or 100 lateral metres within a PA;
- Level 1 petroleum activities, provided they are not within 100 lateral metres of a nominate waterway within a PA (not allowed within HPA);
- Sewage treatment (ERA 15);
- Municipal water treatment plant (ERA 16);
- Dredging material (ERA 19);
- Small scale extraction of rock or other material for specified works outside of a watercourse (ERA 20)¹⁰³;
- Extraction (ERA 20) in a watercourse if an allocation notice (issued under the *Water Act 2000* or *CPMA 1995*) is held;
- Screening (ERA 22) outside a watercourse;
- In designated urban areas can develop
 - crematorium (ERA 14)
 - motor vehicle workshop (ERA 28)
 - a further 11 (previously referred to as level 2) ERAs which are all small scale activities

ERAs for which there is no viable location for the development outside the HPA and which comply with Part 10 and Part 3 of the WR code; however, to the extent these require vegetation clearing and are not "for relevant purpose", these may not be given approval.

¹⁰² Based on discussions with the Department of Infrastructure and Planning, 27 May, 2010.

¹⁰³ Note that small scale generally means borrow pits that are less than 10,000 m³.