

Protecting Rivers, Supporting Communities

A report series by The Wilderness Society for the House of Representatives Economics Committee's *Inquiry into issues affecting Indigenous economic development in Queensland and review of the Wild Rivers (Environmental Management) Bill 2010*

Environmental Regulation in Queensland

Report 3 of 6 – Feb 2011



Summary

This report provides an overview of existing environmental regulation in Queensland, and considers whether this regulatory system is adequate to protect healthy river systems, using Cape York Peninsula as a case study to demonstrate how environmental regulation affects key development activities. A brief summary of each section in this report is as follows:

Environmental Regulation in Queensland: Queensland's environmental legal system is comprised of four levels; international law, federal law, state law and common law. The major area of regulation is governed by the State of Queensland, which has powers under the Australian Constitution to regulate land and water management. Some Commonwealth laws, particularly the *Environment Protection and Biodiversity Conservation Act 1999* also play a key role in this regulatory system.

Healthy River Protection – Are Current Regulations Adequate?: Using a benchmark test of the precautionary principle, we broadly conclude that the Queensland regulatory system is reasonably well developed to provide for the protection of healthy river systems, mostly because of the *Wild Rivers Act 2005*, and the vital gap it fills in whole-of-catchment management. Overturning the *Wild Rivers Act 2005*, as the Opposition Leader Tony Abbott has previously stated as his intention with his *Wild Rivers (Environmental Management) Bill 2010*, would greatly erode the effectiveness of this regulatory system.

Environmental Regulation and Development Activities on Cape York Peninsula: A summary table outlining various forms of development activities with analysis of the level of applicable environmental regulation, indicates that large-scale irrigated agriculture and native forest logging are the most tightly controlled development activities in the region, given their very high environmental impact. Other development activities are either strongly supported by the regulatory regime, or require reasonable regulation to minimise environmental impact.

How this report relates to the Terms of Reference of the Inquiry

This report addresses the following components of the Terms of Reference:

- [The Committee should consider:] existing regulation, legislation in relation to mining and other relevant legislation including the *Wild Rivers Act (Qld) 2005* and the *Environment Protection and Biodiversity Conservation Act 1999*
- [The inquiry should pay particular attention to the following:] The effectiveness of current State and Commonwealth mechanisms for appropriate preservation of free-flowing river systems which have much of their natural values intact, including the preserving of biodiversity
- [The inquiry should pay particular attention to the following:] Options for improving environmental regulation for such systems

Environmental Regulation in Queensland

The Queensland environmental legal system is comprised of four levels; international law, federal law, state law and common law. This report provides a snap-shot of the Queensland and Commonwealth Government laws that relate directly to the regulation of land and water management and therefore, regulation of development activities. (see McGrath 2006 for an excellent synopsis of the entire system of environmental legislation and regulation)

Queensland Legislation

The Australian Constitution vests core responsibility for the regulation and management of land and water in the states. It is therefore at the state level where the majority of Queensland's environmental regulation is based. Below is a brief summary of the core state legislation relating to environmental protection and the regulation of development activities in Queensland:

“The Australian Constitution vests core responsibility for the regulation and management of land and water in the states”

Cape York Peninsula Heritage Act 2007 – Provides for a vehicle number of reforms in relation to land use and Indigenous rights on Cape York Peninsula. This includes special clearing exemptions for Indigenous communities through the creation of “Indigenous Community Use Areas” (ICUAs); and a pathway for a World Heritage listing for the region by the declaration of a “Areas of International Conservation Significance” (AICS), a new form of Aboriginal owned and jointly managed National Park; and confirmation of native title rights in the *Wild Rivers Act 2005*. The Act was negotiated by various parties as a settlement to disputes over sustainable development, Wild Rivers and other land use matters.

Coastal Protection and Management Act 1995 - Provides for the development of State and regional planning and integrated approval processes in relation to coast development. The Act also provides for the regulation of dredging, quarrying, canal construction, tidal works and other activities in the coastal zone, in particular in coastal management districts and erosion prone areas. (McGrath 2006)

Environmental Protection Act 1994 – This is a multifaceted Act with the aim of ensuring “ecologically sustainable” development in Queensland. It does this by providing for a number of regulatory tools including: Environmental Protection Policies for water, air, noise and waste management; Environmental Impact Statement process for mining activities; a licensing system for “environmentally relevant activities”; establishment of the general environmental duty; a system of environmental evaluations and audits; Environmental Management Programs; Environmental Protection Orders; Financial Assurances; a system for the management of contaminated land; Environmental Offences; investigative powers of authorised officers including power to give an emergency direction; civil enforcement provisions to restrain breaches of the Act with widened standing for public interest litigants; and public reporting on information on the environment.

Fisheries Act 1994 – Provides the State's legislative framework for the regulation of fisheries, coastal areas important as fisheries habitat, and marine plants. The Act provides a range of mechanisms aimed at the sustainable management of fisheries including management plans, quotas, offences, licences and declarations of closed seasons, closed waters and fisheries habitat areas. (McGrath 2006)

Forestry Act 1959 – Regulates the use of forest products such as timber on all State land including State forests, leasehold land and unallocated State land (in total, approximately 80% of the State). A central definition of the Act is “forest products” which means all vegetable growth and material of vegetable origin. For designated timber producing areas such as State forests, “forest products” also include honey, native animals, fossils and quarry material. (McGrath 2006)

Land Act 1994 – Provides a framework for the allocation of State land either as leasehold, freehold or other tenure. The importance of the allocation of land to the environmental legal system is central to resource use and management. The decision to lease land, sell land as freehold, dedicate it as national park or other tenure will in large part determine how that land is used. This creates the fabric of tenures, which in practice constrain the environmental legal system, politically if not legally. (McGrath 2006)

Land Protection Act (Pest & Stock Route Management) 2002 – Provides a framework for the control of declared pests such as foxes, feral pigs and groundsel??. In addition to pests, the Act also provides a framework for managing Queensland's 72,000km of stock routes, which remain of considerable importance in rural areas for the movement and agistment of cattle and sheep, and also remnant biodiversity corridors. (McGrath 2006)

Marine Parks Act 2004 – Establishes a framework for the identification, gazettal and management of protected areas as Marine Parks and the protection of marine species. It adopts a planning and management approach of establishing zoning plans for multiple-use management and a permit system for activities within marine parks such as collecting marine products or commercial whale watching. (McGrath 2006)

Mineral Resources Act 1989 – Provides a framework to regulate tenure and royalty issues associated with exploration and mining for minerals (defined not to include petroleum) on land in Queensland. Mining is exempt development under the Sustainable Planning Act 2009. In effect mining may occur at any location where sufficient mineral reserves are established and the public interest (including any deleterious environmental effects) warrants the grant of the mining lease. The one exception to this rule is in the case of mining leases in a national park or conservation park. (McGrath 2006)

Native Title Act 1993 – Validates past acts attributable to the Queensland Government that may have affected native title and asserts that certain acts have extinguished native title. Importantly for environmental law, s17 asserts the existing ownership of the State Government to all natural resources, the right to use, regulate and control the flow of waters and fishing access rights. Whether native title has been extinguished for these matters remains uncertain. (McGrath 2006)

Nature Conservation Act 1992 - Establishes a framework for the identification, gazettal and management of protected areas (such as national parks) and the protection of native flora and fauna (protected wildlife). Section 27 of the Act prohibits the granting of a mining lease in a national park or conservation park. (McGrath 2006)

Petroleum and Gas (Production and Safety) Act 2004 – Regulates petroleum exploration, extraction (including coal seam gas) and pipeline licensing for tenures granted after 2004. Due to native title complications, the Petroleum Act 1923 continues to regulate the exploration and extraction of petroleum (including natural gas) for licences granted prior to 2004. (McGrath 2006)

State Development and Public Works Organisation Act 1971 – Draws together a range of powers and functions which are used by the State Government to promote and facilitate large projects in Queensland. The Act provides a formal environmental impact statement process in ss26-35 for significant projects. The Act provides a range of mechanisms to facilitate large development projects including declarations of prescribed development of State significance, State development areas and a power to compulsorily acquire land for large infrastructure facilities. The latter provision aims to facilitate large infrastructure projects such as dam construction by private companies. (McGrath 2006)

Sustainable Planning Act 2009 – This is Queensland’s central planning legislation, which seeks to achieve “ecological sustainability” by managing the effects of development on the environment, and seeks to integrate planning across government at the local, regional and state levels. “Development” is defined in the Act as carrying out a building, plumbing or operational work, reconfiguring a lot, or making a material change of use of premises. Importantly, the Act establishes the Integrated Development Assessment System (IDAS), which covers the approvals process for almost all developments in Queensland. For this reason, the Act is tightly linked with many other bits of legislation dealing with the regulation of development, including the Wild Rivers Act 2005. However, mining is exempted as development under the *Sustainable Planning Act 2009*, meaning this Act has little capacity to address sustainability issues with mining.

Vegetation Management Act 1999 – Operates closely with the *Sustainable Planning Act 2009* to prevent broad-scale clearing of remnant vegetation on all tenures except State forests, national parks, forest reserves and other tenures defined under the *Forestry Act 1959* and *Nature Conservation Act 1992*. It does this by requiring permits for clearing to be assessed against regional vegetation management codes. Some important regrowth vegetation is also protected via the *regrowth vegetation code*. Clearing for some activities such as fences, firebreaks, weed control, some urban development and most mining activities, are largely exempt from the regulations. On Indigenous and freehold land, clearing can also occur for a native forest practice, if clearing complies with the *Code applying to a Native forest practice on freehold land*.

Water Act 2000 - Provides a framework for the planning and regulation of the use and control of water in Queensland. This includes regulating both major water impoundments (dams, weirs, etc.) and extraction through pumping for irrigation and other uses. Water Resource Plans are statutory instruments under the Act which are prepared through a consultative process generally on a catchment-by-catchment basis. Water Resource Plans form the “baseline” plan for how much water can be taken out of catchments and represent a limit to water use. Resource entitlements are then granted in accordance with Water Resource Plans. In addition to these planning controls, the destruction of vegetation, excavation or placing fill in a watercourse, lake or spring is regulated through this Act. (McGrath 2006)

Wet Tropics World Heritage Protection and Management Act 1993 – Establishes a framework for regulating land use development and management within the Wet Tropics World Heritage Area, implemented through the statutory *Wet Tropics Management Plan 1998*. It provides a zoning plan to control development and activities within the Wet Tropics World Heritage Area. (McGrath 2006)

Wild Rivers Act 2005 – Provides a framework for the preservation of the natural values of rivers that have all, or almost all, of their natural values intact. Operating through enabling legislation such as the *Sustainable Planning Act 2009*, the *Water Act 2000* and other Acts, “wild river areas” are declared in healthy river catchments, effectively providing a buffer around major aquatic features, within which destructive activities such as strip-mining, intensive irrigation and dams cannot occur. For some other development activities in these areas, the bar for environmental approval is set slightly higher, and water extraction is capped at a sustainable level.

Commonwealth Legislation

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is the major Commonwealth piece of legislation dealing with development approvals and other matters. It regulates impacts on matters of national environmental significance, impacts on the environment involving the Commonwealth or Commonwealth land, killing or interfering with listed marine species and cetaceans (e.g. whales), and international trade in wildlife.

By far the most important regulatory mechanism created by the EPBC Act is the approval system for actions with a significant impact on matters of national environmental significance (including the world heritage values of a declared World Heritage property, listed threatened species and ecological communities, listed migratory species, nuclear actions, Commonwealth marine actions, the ecological character of a declared Ramsar wetland, and the National Heritage values of a declared National Heritage place). In many cases this creates obligations for the environmental impact assessment process for developments.

Most Commonwealth legislation relating to the environment and development activities deals with issues such as the regulation of Commonwealth marine waters; trading of goods; restoring the health of the Murray-Darling Basin; and energy policy (including air pollution). In Queensland, such Commonwealth legislation includes the management and protection of the Great Barrier Reef, and fisheries:

Fisheries Management Act 1991 – This operates together with the *Fisheries Act 1994 (Qld)* to regulate fisheries within the Australian fishing zone (other than in Torres Strait) under complex arrangements made following the Offshore Constitutional Settlement. (McGrath 2006)

Great Barrier Reef Marine Park Act 1975 – Establishes a framework for the protection and management of the Great Barrier Reef Marine Park (“GBR”). *The Great Barrier Reef Marine Park Regulations 1975* establish a zoning plan for the GBR based on the concept of multiple-use management, with fully protected areas now set at 33%. The Act and Regulations also provide a range of specific management tools such as plans of management and compulsory pilotage areas for shipping. *The Great Barrier Reef Marine Park (Aquaculture) Regulations 2000* prescribe a licensing system to regulate aquaculture discharges into the GBR. (McGrath 2006)

Water Act 2007 – Establishes the *Murray-Darling Basin Authority* tasked with ensuring that Basin resources are managed sustainably by preparing a Basin Plan. The Act also establishes a *Commonwealth Environmental Water Holder* to manage the Commonwealth’s environmental water, and provides the Australian Competition and Consumer Commission (ACCC) with a central role in developing and enforcing water charge and water market rules.

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Healthy River Protection – Are Current Regulations Adequate?

The Terms of Reference for this Inquiry calls for attention to the “effectiveness of current State and Commonwealth mechanisms for appropriate preservation of free-flowing river systems which have much of their natural values intact, including the preserving of biodiversity”. So does the current regulatory system in Queensland, outlined above, deliver on this goal of protecting healthy, free-flowing river systems?

Measuring the Health of River Systems

“River health” is a useful and widely understood concept for understanding the ecological condition of a river system, including its various values, ranging from those relating to human needs (such as freshwater and recreation), and biodiversity. Current methodologies for assessing river health include examining physical form, water quality, aquatic biota, hydrological disturbance and catchment disturbance. Examining the health trajectory of Queensland’s free-flowing rivers is therefore one way of determining the effectiveness of Queensland’s regulatory system. However, this is not a straightforward task.

“Measuring the health trajectory of free-flowing river systems in Queensland poses the additional problem that it does not assess the level of immediate or future threat to the river system ...”

Data collection across Queensland is highly variable. The vast bulk of scientific research and monitoring is done in stressed river systems on the east coast and in the Murray-Darling Basin, where there are higher levels of population and development compared with other regions (and therefore greater political and economic impetus to focus research in these areas).

For instance, in South East Queensland there is an excellent collaborative program between governments, industries, research organisations and community groups (“Healthy Waterways”), which produces an annual report card on the health of river catchments in the area. Similarly, the “Sustainable River Audit” is another collaborative river monitoring program focussed in the Murray-Darling Basin, providing regular assessments of the health of the river systems in the basin area.

But for the free-flowing rivers of Cape York Peninsula and the Gulf of Carpentaria, this level of investment, infrastructure (such as stream gauges) and capacity does not exist to conduct such a rigorous monitoring program. While it is well established in the scientific literature that these river systems are currently in good ecological health (for example see Department of Environment and Heritage 1998; Mackey et al 2001; Smith et al 2005), it is difficult to measure the trajectory of their relative health (eg. declining or improving) to the same degree as areas in South-East Queensland or the Murray-Darling Basin.

Measuring the health trajectory of free-flowing river systems in Queensland poses the additional challenge that it does not assess the level of immediate or future threat to the river system: one year a river system might be deemed as healthy, and the next in a rapidly declining state to the construction of a dam or extensive strip mining. If there are immediate threats that cannot be stopped by regulation, the regulation is inadequate. We must therefore consider other measures of regulatory success.

Precautionary Principle as an Additional Measure of Regulatory Success

A more useful measure of regulatory success is to examine whether or not the system prevents the types of development and other human-caused environmental impacts that present a very high risk to river health; in other words, assessing whether the regulatory system sufficiently embraces the precautionary principle.

“Essentially this principle calls for decision makers to prevent environmental harm before it occurs, particularly when the risk of such harm is high and there is scientific uncertainty of the consequences of an action or development”

The precautionary principle is a preventative concept stemming from the “duty of care” in English common law (Neville 2005: p.2). The 1982 United Nations *World Charter for Nature* was the first international agreement that adopted the precautionary principle, influencing future international treaties and declarations, and therefore Australian law. Chief among the declarations is the 1992 *Rio Declaration on Environment and Development*, which further established the principle by providing that:

“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.” (Principle 15)

Essentially this principle calls for decision makers to prevent environmental harm before it occurs, particularly when the risk of such harm is high and there is scientific uncertainty of the consequences of an action or development. The application of this approach also helps reduce the effect of cumulative impacts and the “tyranny of small decisions” (see Odum 1982), where many small-scale developments may as a whole produce a significant environmental impact.

So how can this principle be used as a measure of the Queensland regulatory system? The first thing to establish is a set of broad threats agreed by ecologists as posing a serious threat to the health of river system. Some of the world’s foremost river ecologists have grouped these threats into five major categories (see Dudgeon 2005 et al):

1. **Water pollution:** this includes agricultural runoff, and toxic chemicals or heavy metals from mining and urban areas.
2. **Habitat destruction and degradation:** river systems drain water from the surrounding landscape, so the clearing of land and destruction of natural forests, woodlands or grasslands directly impacts on their health.
3. **Flow modification:** this includes the impoundment of water in dams and weirs and alteration of the timing of natural flows down a river system, as well as the amount of water and its chemistry.
4. **Species invasion:** invasive weeds and other feral animals quickly capitalise in modified environments, further exacerbating native species decline.
5. **Overexploitation:** this includes over-fishing and uncontrolled exploitation of freshwater species.

If the range of legislation noted in the previous section is analysed against these broad threats, a rough picture of how the regulatory system meets the precautionary principle standard as it applies to maintaining river health can be established. This is outlined in the table on the next pages.

Legislation Measured Against Key River Threats

LEGISLATION	OVERALL ASSESSMENT	WATER POLLUTION	HABIT DEGRADATION	FLOW MODIFICATION	SPECIES INVASION	OVEREXPLOITATION
Queensland Legislation						
<i>Cape York Peninsula Heritage Act 2007</i>	Limited in scope as it applies to rivers, though it may provide future benefits as being a vehicle to ensure a World Heritage listing for appropriate parts of the Cape York Peninsula region.	Does not regulate pollution into waterways.	Somewhat contradictory as it provides an exemption for some habitat destruction, but also establishes a path to World Heritage listing, which could lead to substantial protection of habitat.	Does not regulate flows or impoundments, and provides for Indigenous water reserves in declared wild river areas.	Does not deal directly with the regulation of invasive species.	Does not regulate fishing.
<i>Coastal Protection and Management Act 1995</i>	Limited in scope as it applies to rivers, some minor benefits to river health through regulation of estuary development.	Does little to regulate pollution into waterways.	Manages some destruction of habitat linked to aquatic environments, but limited in scope and geographical application (ie in coastal areas).	Regulates some development such as dredging, which can affect natural flows of river systems, as well as fish populations.	Does not deal with the regulation of invasive species.	Does not regulate fishing.
<i>Environmental Protection Act 1994</i>	Focussed on controlling contaminants and pollution, though even this is limited in effectiveness. Does not consider holistic management of river catchment.	Regulates and controls pollution into waterways and water quality, however does not manage cumulative impacts well; mine spills frequently occur; and agricultural chemicals remain a poorly regulated area.	Sets up EIS process for major development (linked with other legislation) however, the Act itself is focussed on managing contaminants rather than habitat destruction and degradation.	Sets up EIS process for major development (linked with other legislation) however, the Act itself is focussed on managing contaminants rather than impacts on natural flows.	Does not deal with the regulation of invasive species.	Does not regulate fishing.
<i>Fisheries Act 1994</i>	Focussed mainly on marine environment, so little bearing on river health.	Focussed on marine environment.	Focussed on marine environment.	Focussed on marine environment.	Focussed on marine environment.	Fishing regulated in some estuaries – focussed mainly on marine environment.
<i>Forestry Act 1959</i>	Limited in scope as it applies to river health, some benefits through phasing out of native forest logging.	Does not regulate pollution into waterways.	Includes provision for the phasing out of native forest logging in some areas, which directly benefits some healthy river catchments.	Does not regulate flows or impoundments.	Does not deal with the regulation of invasive species.	Does not regulate fishing.
<i>Land Act 1994</i>	The tenure system as a whole has a profound bearing on how a catchment and therefore river health is managed, but this Act does not provide regulatory oversight of key threats.	Does not directly regulate pollution into waterways.	Conditions tied to leases can affect how a landscape and catchment are managed in a significant way, though likely to be patchwork.	Does not regulate flows or impoundments.	Does not deal with the regulation of invasive species, except in a very minor way through conditions of leases.	Does not regulate fishing.
<i>Land Protection Act 2002</i>	Limited in scope as it applies to regulating invasive species primarily relating to threat to agricultural land.	Does not regulate pollution into waterways.	Does not regulate habitat destruction.	Does not regulate flows or impoundments.	Regulates and controls invasive species, though primary purpose is protected agricultural land, not ecosystems.	Does not regulate fishing.
<i>Marine Parks Act 2004</i>	Focussed mainly on marine environment, so little bearing on river health.	Focussed on marine environment.	Focussed on marine environment.	Focussed on marine environment.	Focussed on marine environment.	Fishing regulated in some estuaries – focussed mainly on marine environment.
<i>Mineral Resources Act 1989</i>	Designed to facilitate development, not provide protection. Issues related to river health are deferred back primarily to Environmental Protection Act 1994.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.
<i>Nature Conservation Act 1992</i>	Provides good protection of river systems, but only within protected areas, which is most often incongruent with catchment boundaries.	Provides good protection from pollution threats though only in the parcel of land that is a protected area.	National Parks provide high level of habitat protection for parcels of land (although these are mostly incongruent with catchment boundaries)	Prevents excessive water extraction, and destructive dams within the area.	Helps manage invasive species within the area (though resourcing for land managers is the primary issue).	Fishing regulated in some areas of some National Parks.
<i>Petroleum and Gas (Production and Safety) Act 2004</i>	Designed to facilitate development, not provide protection. Issues related to river health are deferred back primarily to Environmental Protection Act 1994.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.
<i>State Development and Public Works Organisation Act 1971</i>	Designed to facilitate development, not provide protection and instead often gives special exemptions for large projects.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.	Designed to facilitate development, not provide protection.
<i>Sustainable Planning Act 2009</i>	Is only as good as the other legislation it links to – otherwise in itself does help integrate planning decisions which affect river health.	Brings together various pieces of environment and planning legislation to integrate approvals process, so only as good as other legislation it links to.	Brings together various pieces of environment and planning legislation to integrate approvals process, so only as good as other legislation it links to.	Brings together various pieces of environment and planning legislation to integrate approvals process, so only as good as other legislation it links to.	Brings together various pieces of environment and planning legislation to integrate approvals process, so only as good as other legislation it links to.	Does not regulate fishing.
<i>Vegetation Management Act 1999</i>	Plays an important role in maintaining the integrity of vegetation in a catchment area and therefore river health.	Does not directly regulate pollution into waterways.	Is the primary regulation in Queensland for preventing landscape destruction and clearing of forests, which has direct positive benefits for river systems.	Does not regulate flows or impoundments.	Invasive species most often follow disturbed and cleared environments, so there is a direct benefit of this legislation here.	Does not regulate fishing.
<i>Water Act 2000</i>	Can provide a good level of flow protection if used in this manner, major gap is lack of regulation of development near rivers.	Provisions for water quality and pollution regulation are very limited given the primary focus is water allocation and management.	Some habitat and waterway destruction is controlled, but there are significant exemptions for mining activities.	Has the capacity to prevent dams on certain streams, and cap water extraction at sustainable levels, though much is left to Ministerial discretion.	Does not deal well with the regulation of invasive species.	Does not regulate fishing.
<i>Wet Tropics World Heritage Protection and Management Act 1993</i>	Provides good protection of river systems, but this is only within the listed area so is not holistic management.	Provides good protection from pollution threats through management of development and zoning system.	Prevents habitat destruction near waterways and helps maintain health of entire catchments within the area.	Prevents excessive water extraction, and destructive dams within the area.	Helps manage invasive species within the area (though resourcing for land managers is the primary issue).	Does not regulate fishing.
<i>Wild Rivers Act 2005</i>	A critical regulatory tool in Queensland. Without this Act, many serious risks are only partially managed in healthy river systems.	The High Preservation Area buffer zone plays a major role in preventing high risk development and pollution near streams.	Aside from National Parks, there is no other explicit regulatory tool available to prevent strip-mining near river system than this Act – it therefore plays a major role in preventing habitat destruction.	Explicitly prevents the construction of dams on important river systems and caps water extraction at a sustainable level.	Helps prevent the deliberate introduction of pest fishes and high risk weed species.	Does not regulate fishing.
Commonwealth Legislation						
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	Protecting river health requires holistic management and this Act is too piecemeal and focussed on individual species and places to deliver this alone.	Deals poorly with cumulative impacts of pollution as it relates to entire river health – is more focussed on single species or parcels of land listed as World Heritage areas or Ramsar wetlands.	Deals poorly with cumulative impacts of habitat destruction as it relates to entire river health – is more focussed on single species or parcels of land listed as World Heritage areas or Ramsar wetlands.	Has been used to prevent destructive dams, but decisions are highly discretionary. There is no trigger in the Act for excessive water extraction or protection of whole river systems.	Does not deal well with the regulation of invasive species, particularly as it applies to affecting a whole river system.	Does not regulate fishing unless they are a threatened species.
<i>Fisheries Management Act 1991</i>	Focussed mainly on marine environment, so little bearing on river health.	Focussed on marine environment.	Focussed on marine environment.	Focussed on marine environment.	Focussed on marine environment.	Focussed on marine environment.
<i>Great Barrier Reef Marine Park Act 1975</i>	Focussed mainly on marine environment, so little bearing on river health.	Focussed on marine environment.	Focussed on marine environment.	Focussed on marine environment.	Focussed on marine environment.	Focussed on marine environment.
<i>Water Act 2007</i>	The Act applies to a degraded system (with the exception of the Paroo), and does not deal with broader river health threats such as point-source pollution or inappropriate development.	Focussed on regulating water extraction and management, though the capping and reduction of water extraction would very likely lead to some reduction of pollution risks.	Focussed on regulating water extraction and management.	This Act only applies to the Murray-Darling Basin. It does have the capacity to cap and reduce water extraction, but as the plan has not been resolved the benefits for healthy river systems (the Paroo chiefly) remains to be seen.	Does not deal well with the regulation of invasive species.	Does not regulate fishing.

The major points that can be drawn from this table assessment are:

- *The Wild Rivers Act 2005* is a vital piece of the regulatory system, given that it is the only holistic regulation that links the health of the catchment with the health of the river, and applies a strong precautionary principle approach to the sorts of development permitted near a river system;
- Commonwealth legislation plays a minor role in the Queensland regulatory system in protecting healthy river systems;
- *The Environment Protection and Biodiversity Conservation Act 1999* is too piecemeal and focussed on protecting certain places and individual species rather than whole-of-landscape protection, including river systems. This is an important point, as some have argued that the Wild Rivers Act 2005 is unnecessary with this legislation in place;
- The major gap in Queensland's *Water Act 2000* in protecting health rivers is the lack of regulation of development activities in and near waterways and other important aquatic features;
- National Parks and protected areas play a role in maintaining river health, but this is limited only to the parcels of land within which the river flows or catchment lies. They are ineffective by themselves to manage whole river catchments, unless it falls entirely within the protected area;
- The *Vegetation Management Act 1999* plays a key role in the regulatory system of maintaining whole-of-landscape health and habitat – it is an important complimentary tool to the Wild Rivers Act 2005; and
- The regulation of invasive species is not particularly robust across the board – this emphasises the need for both stronger regulation in this area, as well as complimentary, non-regulatory programs such as the *Indigenous Wild River Ranger Program*.

Applying this measure of the precautionary principle, then, we can broadly conclude that the Queensland regulatory system is well developed to provide for the protection of healthy river systems, mostly because of the *Wild Rivers Act 2005*, and the vital gap it fills in whole-of-catchment management. There is absolutely no question that overturning the *Wild Rivers Act 2005* or seriously undermining current and future Wild River declarations, as the Opposition Leader has said he intends with his *Wild Rivers (Environmental Management) Bill 2010*, would greatly undermine the effectiveness of this regulatory system.

Wild Rivers Act leading the world

Queensland is privileged to retain some of the world's last free-flowing, healthy rivers. Just like our most treasured places, including the Great Barrier Reef and the rainforests of the Wet Tropics, these highly valued rivers deserve a special form of protection to safeguard their future.

The Wild Rivers Act 2005 achieves this. It is a unique piece of environmental legislation, specifically designed to protect and manage the important natural values of our last healthy river systems, while supporting sustainable economic development.

There is nowhere else in the world with this type of stand-alone river protection legislation that has the ability to manage destructive threats across an entire catchment area. For this reason, Queensland's environmental regulatory system is dramatically enhanced with this legislation.

Environmental Regulation and Development Activities on Cape York Peninsula

Having briefly analysed the Queensland environmental regulatory system, particularly as it applies to managing healthy rivers; it is useful to look at the way in which this system affects development activities.

The following table summarises key development activities that require some level of environmental regulation on Cape York Peninsula outside of the protected area estate (this does represent an exhaustive list of all activities). We have used Cape York Peninsula as an example given much of the focus of the debate around Wild Rivers is related to Indigenous economic development in this region.

The following table shows that large-scale irrigated agriculture and native forest logging are the most tightly controlled development activities in the region, given their very high environmental impact. Other forms of economic development are either strongly supported by the regulatory regime, or require sensible hurdles to minimise environmental impact (other than mining, which is exempt from key pieces of legislation including the *Vegetation Management Act 1999*).

Environmental Regulation and Development Activities on Cape York Peninsula

Form of Development	Level of Regulation	Comments
Animal Husbandry		The effluent from this type of development (ie cattle feedlots or pig and poultry factories) is the major point of regulation, with permits granted through the Sustainable Planning Act 2009 and the Environmental Protection Act 1994. In declared Wild River areas, these activities are not permitted within 500m – 1km of major watercourses or wetlands, unless they are within an urban zone.
Aquaculture		In declared Wild River areas, open aquaculture systems in major water courses are not permitted. However they are permitted in estuarine and coastal areas (with requirement relating to effluent control, health and quarantine), which is where CSIRO has identified as having the most potential for prawn aquaculture. Closed-ring tank aquaculture is permitted throughout Cape York, setback from major watercourses in Wild River areas (water reserves are available in Wild River areas to supply water for this type of activity). Location and supply chains are a major constraint to this industry, rather than regulatory control (see Kleinhart 2005).
Arts and Crafts		There are few regulatory constraints to this industry. It could be strongly argued that the industry is enhanced by the protection of natural and cultural resources.
Bush Foods and Medicines		There are few regulatory constraints to this industry, provided there is no excessive clearing of forests. It could be strongly argued that the industry is enhanced by the protection of natural and cultural resources.
Carbon Abatement (Fire Management)		This is an emerging economic development opportunity on Cape York Peninsula, with other Indigenous communities in the Northern Territory already earning a significant income from such projects. There are few regulatory constraints to fire management – the key hurdle to realising this opportunity is establishing a national carbon price, and clarifying complex tenure issues related to Traditional Ownership and realising broader carbon market opportunities.
Crocodile Farming		Under the Cape York Peninsula Heritage Act 2007, there is a scientific assessment process underway to examine the sustainability of harvesting Crocodile eggs in the community of Pormpuraaw.
Fishing (Commercial)		There are extensive commercial fishing operations in the Gulf of Carpentaria and the Torres Strait with regulatory oversight from the Federal and Queensland Governments (there are very few Marine Protected Areas in these marine waters). On the eastern side of Cape York Peninsula, marine waters are protected by the Great Barrier Reef Marine Park, however most of the zoning in this area allows for commercial fishing (with some conditions).
Irrigated Agriculture (Small-scale)		In declared Wild River areas, irrigated agriculture is not permitted within 500m – 1km of major watercourses and dams cannot be constructed. However for each declaration there is an Indigenous water reserve, plus there are special exemptions for small-scale tree clearing for Indigenous communities under the Cape York Peninsula Heritage Act 2007, which allows for small-scale, boutique irrigated development set back from major watercourses.
Irrigated Agriculture (Large-scale)		In declared Wild River areas, irrigated agriculture is not permitted within 500m – 1km of major watercourses and dams cannot be constructed. There is also little water available for large irrigation schemes, and large areas of forest cannot be cleared to allow for this development. Most importantly, there are significant ecological constraints. This includes low nutrient levels in soil, soils with high erodibility, low water availability (due to seasonality of flows), flooding threats, and acid sulfate soils (CSIRO 2009).
Market Gardens		The primary regulation relating to market gardens is within a High Preservation Area in a declared Wild River area, where 4 hectares is the maximum allowable size. This includes the ability to sell produce commercially. Any tree clearing for a market garden must also comply with the Vegetation Management Act 1999, though there are special clearing exemptions available for Indigenous communities under the Cape York Peninsula Heritage Act 2007.
Mining (Strip-mining)		In declared Wild River areas, new strip mining is not permitted within the 500m – 1km protective buffer zone around major watercourses, springs and wetlands (existing mining leases are exempt). Outside of these areas, however, strip mines are exempt from Queensland's tree clearing laws, so if the company demonstrates that it reaches the low bar set by the Federal Environmental Protection and Biodiversity Conservation Act 1999, the mine will invariably go ahead. In reality, given a range of significant exemptions and the fact that most mining occurs away from waterways and springs (with Cape Alumina being the exception here), there are few constraints to this industry beyond the protective buffers in a Wild River declaration.
Mining (Underground or Point-source)		There are few regulatory constraints to this industry, with the ability to mine underneath a High Preservation Area in a declared Wild River area (providing it can be demonstrated there will be no ground subsidence or impact on groundwater), and establish gas/petroleum wells in this buffer zone, with a setback of 200m from watercourses. In addition, a company has to demonstrate that it reaches the low bar set by the Federal Environmental Protection and Biodiversity Conservation Act 1999.
Natural Resource Management		This is an emerging economic development opportunity on Cape York Peninsula, which includes Indigenous ranger programs and other environmental services. It could be strongly argued that the industry is enhanced by the protection of natural and cultural resources.
Native Forest Logging		Although some selective logging on freehold land is permitted (regulated in Queensland via the Code Applying to a Native Forest Practice on Freehold Land), overall there are reasonably tight controls around native forest logging. There are, however, moves to establish Indigenous timber salvaging operations on lands subject to future bauxite mining.
Pastoralism		There are few regulatory constraints to cattle grazing on Cape York Peninsula, other than permitting required for some infrastructure such as fences, roads, houses, etc (depending on level of impact). Broad-scale tree clearing is not permitted, however given the existing availability of native grasses, and past failures of tree clearing for cattle in the region, this is not seen as necessary for the industry. Feedlots are not allowed in the High Preservation Area of declared Wild River areas (there are currently no feedlots on Cape York Peninsula anyway). The Cape York Peninsula Heritage Act 2007 provides for 75 year pastoral leases, if the owner opts into the "Area of International Significance".
Plantation Timber		Native vegetation cannot be cleared to establish new plantations, however there are special exemptions for small-scale tree clearing for Indigenous communities under the Cape York Peninsula Heritage Act 2007, which could allow for plantation establishment (with the caveat that the timber is not used for woodchip export). Regulation of plantations established on cleared land relate primarily to some control of agricultural chemicals.
Renewable Energy Infrastructure		Regulation for this type of infrastructure (wind farms, etc) relate to sensible requirements for vegetation clearing, a sensible setback from watercourses and reaching the low bar set by the Federal Environmental Protection and Biodiversity Conservation Act 1999.
Service Industries (Buildings)		There are few regulatory constraints to this industry, other than some sensible requirements relating to vegetation clearing, effluent control, and a sensible setback from watercourses.
Tourism (Building and Campsites)		There are few regulatory constraints to this industry, other than some sensible requirements relating to vegetation clearing, effluent control, and a sensible setback from watercourses. It could be strongly argued that the industry is enhanced by the protection of natural and cultural resources.

KEY: ■ Few regulatory constraints ■ Moderate regulatory constraints ■ Tight regulatory constraints

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