5 April 2013

Agriculture, Resource and Environment Committee
Parliament House
Cnr George and Alice Streets
Brisbane QLD 4000

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Dear Committee Secretary

Re: Submission to the Land, Water and Other Legislation Amendment Bill 2013

Healthy Waterways is a non government, not-for-profit organisation working to protect and improve waterway health in South East Queensland (SEQ). We facilitate careful planning and coordinated efforts among a network of members from government, industry, research and the community to achieve our shared vision for healthy waterways.

The Healthy Waterways Network includes 43 members, including the State Government, local governments and water utilities in SEQ, , industry groups (e.g. Incitec, Stocklands, GHD) as well as community groups. We receive advice from seven Scientific Expert Panels as well as four steering committees (providing representation from our broad membership).

I will limit this submission to the proposed amendments to the Water Act 2000 that will directly impact on the ability of waterways in SEQ to support our communities' needs and provide critical services.

General comment:

Healthy Waterways agrees that improvements can be made to both the legislation and the way the legislation is applied, to support improvements in waterway management at the scale of the individual landowner as well as the sub-catchment and catchment.

Many of the risks associated with water resource management, including security of supply and flood damage, occur as a consequence of the way an entire catchment is managed. Hence, to mitigate these risks governments need to support and enhance collaborative actions that are applied at the sub-catchment scale, involving multiple landowners.

Healthy Waterways is concerned that the proposed amendments reduce the ability for collective decision making to occur; hence the best outcomes for a catchment community are not likely to be achieved. Many of the proposed amendments devolve the decision making to individual landowners, which is likely to increase risks for the community as a whole.

To avoid increasing risks to communities of Queensland, through a reduction in water resource management, government support to enhance landowner involvement in collaborative planning initiatives, at the sub-catchment and catchment scale need to be prioritised.

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Please see below a list of specific proposed amendments that concern Healthy Waterways:

Clause 228 and 290:

Amendment of s 20 (Authorised taking of, or interference with, water without water entitlement)

Healthy Waterways is concerned that these amendments will reduce the ability to manage water supply in a holistic fashion and will reduce the security of existing water entitlements if the cumulative impact of multiple uses is not combined through a Total Water Cycle Management approach. Specifically amendments that concern Healthy Waterways are:

1 (g) interfere with overland flow water

2 (c) take or interfere with subartesian water

4 (a) ... diversion of a watercourse ... associated with a resource activity

Recommendation:

These amendments are removed until a process is identified that ensures the combined impacts of all interference (including take) of ground water and surface water, within a water catchment, are included in the assessment and approval of new activities.

Clause 293, 294, 299:
Amendment of s 266 (Applying for permit to destroy vegetation, excavate or place fill in a watercourse, lake or spring)

Healthy Waterways has strong scientific evidence that demonstrates the benefits of retaining and increasing vegetation within watercourses, wetlands and floodplains. To reduce community risks and economic loss to individuals and local governments it is critical that a whole of government approach be developed that enhances the ability of vegetation in watercourses to mitigate risks. Please see the attached information on benefits of vegetation adjacent to watercourses.

For riparian zones to provide the critical services of riverbank stability, flood risk reduction, water quality improvement and general river health imporvement , including biodiversity, it is essential that above and below ground vegetation is maintained and enhanced. Removal of the above ground vegetation will eventually result in loss of the bank stability provided by the below ground (roots). The removal of this requirement, that helps to focus community and government attention on the values of vegetation within watercourses, is likely to result in poorly planned modification to watercourses that will increase public risks and community recovery costs, following extreme weather events (e.g. floods). Healthy Waterways would like to work with state and local governments as well as community groups to identify appropriate solutions for entire river systems to reduce individual and community risk. These solutions need to include the ability for landowners to make necessary modifications to the riverfront and floodplain without unreasonable delays. We believe a collaborative solution can be found that will reduce community risks and streamline approval for landowners.

Recommendation:

This amendment is removed.

A new amendment is drafted to facilitate the development of a collaboratively developed catchment vegetation plan. This plan would assist in the issuing of permits for minor works, removing unnecessary delays in process.

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Part 2 Division 1, subdivision1; 967 Applications for levees

Healthy Waterways agrees that there are specific locations where the provision of a levee system to protect individual or community owned infrastructure outweighs any additional risks, caused by the levee, due to changes in water flow.

However, the negative impacts of levee construction in the past have been poorly assessed and an expansion of levee systems in Queensland in the future, if poorly managed, could have perverse outcomes that increase risks to community safety as well as infrastructure damage.

It is important that any legislative change that supports the development of levee construction ensures the following risks associated with levee development are taken into consideration during any assessment process.

Risks posed by levee construction are:

- Concentration of flood waters and an increase in the destructive energy of flood water, including an increased risk of flash flooding downstream of levees.
- Interference with overland flow of flood water, reducing groundwater recharge. This can increase risks to the security of water supplies that rely on groundwater during dry periods.
- Reduced productivity from floodplains that have reduced inundation. The water, sediment and nutrients delivered to floodplains during periods of inundation maintain these areas as regions of high productivity. If levee construction reduced flood inundation of farmland, it is likely that the productivity of the areas that no longer receive regular floods will decline over periods of years to decades.
- Waterways and wetland habitats rely on flooding cycles to maintain many of their flora and fauna If flooding cycles are significantly modified it is likely that the services provided by these diverse ecologies will be negatively impacted.

Recommendation

The amendment to include that a permit to construct levees can only be granted after the results of an assessment of the social, economic and environmental impacts caused by the levee are considered.

Extending the term of water licences

The proposal to extend the term of water licences until 30 June 2111 provides a false sense of security to landowners and anyone who has extractive water licenses. This is because it will limit the government's ability to protect water resources from over extraction, if conditions change over the next 99 years. Extending extractive licences where very little is understood about the ability of the water resource to continue to meet demand is likely to cause unnecessary social and financial hardship on communities if water resources are unable to meet licencee expectations in the future. If climate variability or other changes to water availability reduce the water resource, this amendment will limit the community's ability to prioritise water use during dry periods, by prioritising individual licence holder's requirements over community values. There is also the additional issue that during the last drought significant bed and bank disturbance was caused, by landowners attempting to access limited water supplies. It is important that if any change occurs to water licences that this is linked to a new condition that requires licencee's to mitigate any disturbance caused by the extractive equipment so as to prevent an increase in risk to downstream users, including downstream drinking water storages.

Recommendation

The extension to the term of existing water licences be in line with other government strategic and/or planning documents (10 years for Water Resource Plans or 30 years for strategic documents not impacted by a Water Resource Plan).

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That any extensions to water licences include a condition that in-stream modification cannot cause an increase in risk to downstream water users, either due to an increased erosion hazard, caused by the in-stream extraction equipment, or increased sediment load due to disturbance to the river bed or bank.

Given the time provided for comment, Healthy Waterways feels the above points are the most important to address. I would be delighted to work more closely with the parliamentary committee to provide further information and details on which improvements to the current legislation can be based. In addition, I welcome the opportunity to discuss these matters in more detail at the public hearing on 12 April and/or at another time suitable to the Agricultural, Resource and Environmental Committee.

Yours sincerely

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Chief Scientist

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Vegetation Fact Sheet

Reduce Flood Impacts
By planting vegetation along our riverbanks

In South East Queensland, planting trees and vegetation along degraded waterways and protecting existing riverbank vegetation is the number one priority to protect our communities from future floods.

Lockyer Valley Regional Council

Damage following the January 2013 Flood at My Sylvia

Keeping mud on the land

The 2011 and 2013 floods in Queensland demonstrated the destructive power of water causing over $10 billion dollars of damage to productive farmland, houses, roads and bridges.

We will continue to receive intense rainfall events which are a regular feature of the sub-tropical climate in South East Queensland.

In order to protect our farms, homes and infrastructure, and reduce the destructive energy of flood waters, we must prepare our catchments for rainfall events by establishing healthy vegetation along our riverbanks.

Response to Flooding

If we fail to respond to the warnings from recent flood events and neglect to restore floodplains and increase vegetation in the catchments we will:

- Continue to lose valuable agricultural land
- Disrupt and endanger lives
- Increase the cost of repairing or replacing infrastructure following future floods
- Risk the security of our drinking water supply
- Increase sediment and nutrients entering our waterways
- Smother aquatic habitats that support recreational and commercial fisheries as well as endangered species.

Collaboration is required with farmers and landowners to improve catchment resilience to flood events through revegetation programs in strategic areas.

SEQ Catchments

To reduce the amount of mud entering waterways, we must minimise riverbank erosion.

HEALTHY WATERWAYS

Brisbane City Council

More than 80,000 trees have been planted in the Oxley Creek Catchment

Vegetation reduces flood impacts

Since European settlement, it is estimated that 80% of South East Queensland's native vegetation has been cleared for agriculture, industry and housing.

During large rainfall events, vegetation plays an important role in holding the soil in place and preventing erosion. Vegetation creates a rough surface, which helps to slow the flow of water, giving it time to soak into the ground. This reduces flooding downstream and reduces erosion associated with fast flowing water. Slower moving water also allows the mud to settle on the land before it reaches our waterways.

Scientific modelling predicts that planting vegetation in the upper catchments can reduce the speed of flood water by up to 50% therefore protecting roads, bridges and other infrastructure downstream.

In addition, by planting vegetation along riverbanks and keeping mud on the land, we are protecting fertile farming lands and keeping valuable top soil on the land to grow crops.

We need to strategically increase native vegetation along riverbanks and in the floodplain, to provide resistance to the flood water, in the same way trees and hedges have been used by farmers to protect paddocks and stock from strong wind.

Multiple benefits of riverbank vegetation

Riverbank vegetation:

- reduces the risk of flood damage to farms, homes, roads and other infrastructure.
- limits the amount of mud entering waterways because the roots of vegetation hold the soil in place and reduce erosion.
- filters rainwater and traps mud, pollutants and other debris before it reaches waterways.
- provides habitat for both land-based and aquatic animals.
- provides shade and moderates water temperature through over-hanging trees.

Healthy Waterways

Healthy riverbank vegetation helps to reduce erosion and keep mud on the land

Three steps for flood mitigation

Floodplains are areas of low-lying land next to a waterway which are subject to flooding. Floodplains with well established vegetation help to spread and slow the flow of floodwater and allow water and mud to soak into the ground.

Follow the three steps below to manage flooding downstream, increase productivity of land and reduce damage associated with fast moving water.

1) Be aware of local topography and avoid developing in high risk areas. Steep slopes or areas where the floodplain is narrow will concentrate water and cause high energy flooding.

Queensland Wetlands Program

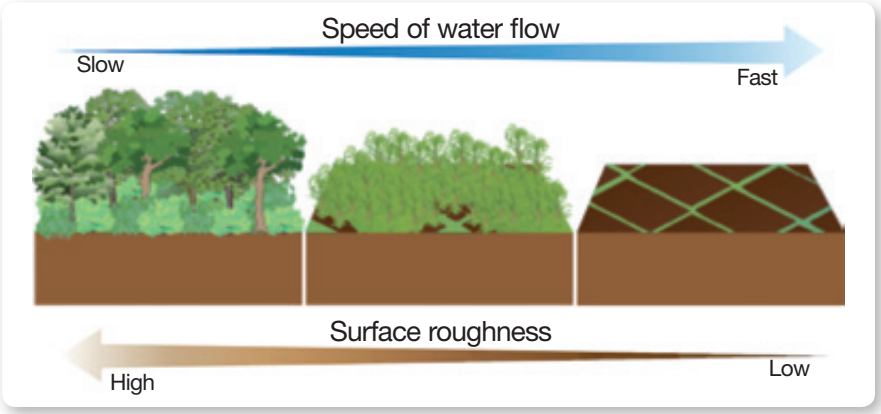
Avoid developing areas of the floodplain which are restricted by surrounding hills, as these are commonly flash flood areas.

2) Increase vegetation in the catchment and along riverbanks. Vegetation will slow the flow of water and cause flood water to spread across the floodplain, reducing the destructive energy of floods.

Queensland Wetlands Program

Rain water is intercepted and absorbed by well established vegetation, reducing the amount of runoff.

3) Reduce the amount of hard surfaces in the catchment. Hard surfaces and levee banks increase water energy, causing erosion and loss of paddocks, roads and bridges downstream.



Queensland Wetlands Program

Well established vegetation significantly reduces the speed of water moving across the landscape.

What you can do

We all have a role to play in protecting and improving waterway health.

There are a number of things you can do on your farm to manage erosion and reduce the amount of mud entering local waterways.

- Plant native vegetation along waterways.
- Ensure adequate vegetation is planted around production areas.
- Fence off riverbanks and provide off stream watering points to limit animal access to local waterways.
- Cover exposed soil with mulch.
- Cover stockpiled soils to prevent soil being transported into waterways by wind or rain.
- Revegetate cleared land as soon as possible.
- Seek property management advice from SEQ Catchments or your local council.

Healthy Waterways

By managing erosion we can reduce the amount of mud entering local waterways.

Healthy Waterways

Healthy Waterways is a not-for-profit, non-government organisation working to protect and improve waterway health in South East Queensland.

By becoming a member of Healthy Waterways, you will belong to a network of people who are working together to protect our waterways. Contact us to find out more.

Healthy Waterways
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There are other fact sheets and educational resources available.
For more information about the waterways of South East Queensland please visit the Healthy Waterways website.

Front banner: Department of Environment and Resource Management
Back banner: Helidon Hills Murphys Creek Landcare Group