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Avoca Vale Qld 4306

SUBMISSION TO THE QUEENSLAND FLOODS COMMISSION OF ENQUIRY 2011

Section 2(g): All aspects of land use planning through local and regional planning systems to minimise infrastructure and property impacts from floods.

Section 2(g) A: Local and Regional Planning Systems

BACKGROUND

Having lived on the lower reaches of the Brisbane River at Sherwood until 1952 and since on the upper reaches of the Brisbane River at Avoca Vale, I sent a letter of concern (refer to **Attachment A** for a brief summary thereof) to the Brisbane Lord Mayor on 1 November 2010.

In his reply of 15 December 2010, he enclosed a copy of the *South East Queensland Natural Resource Management Plan 2009-2031: Regional Targets to Support the Sustainability Framework of the SOUTH EAST QUEENSLAND REGIONAL PLAN 2009-2031* (refer to **Attachment B**).

The Queensland Government publication was prepared by the South East Queensland (SEQ) Regional Co-ordination Group "**working in partnership, with a mission to support and improve through partnership the Regional Natural Resource Management arrangements for SOUTH-EAST Queensland**" (refer to **Attachment C**).

The Co-ordination Group (refer to **Attachment D**) consisted of representation from:

- State Government
- SEQ Traditional Owner Alliance
- Growcom
- SEQ Catchments Ltd
- SEQ Healthy Waterways
- Consortium for Integrated Resource Management
- SEQ Water and
- Council of Mayors (SEQ).

WHAT IS A CATCHMENT?

A catchment is an area of land surrounded by natural high features such as hills or mountains. All the runoff from rainwater in this area will flow to a low point like a stream or river and eventually out to the bay. Some will percolate down through the soil and rocks to become groundwater. Under the influence of gravity, rain falling on the land flows from the top of the catchment through a network of waterways from small gullies and streams, into larger rivers and then to the bay.

Why do I need to know about catchments and waterways?

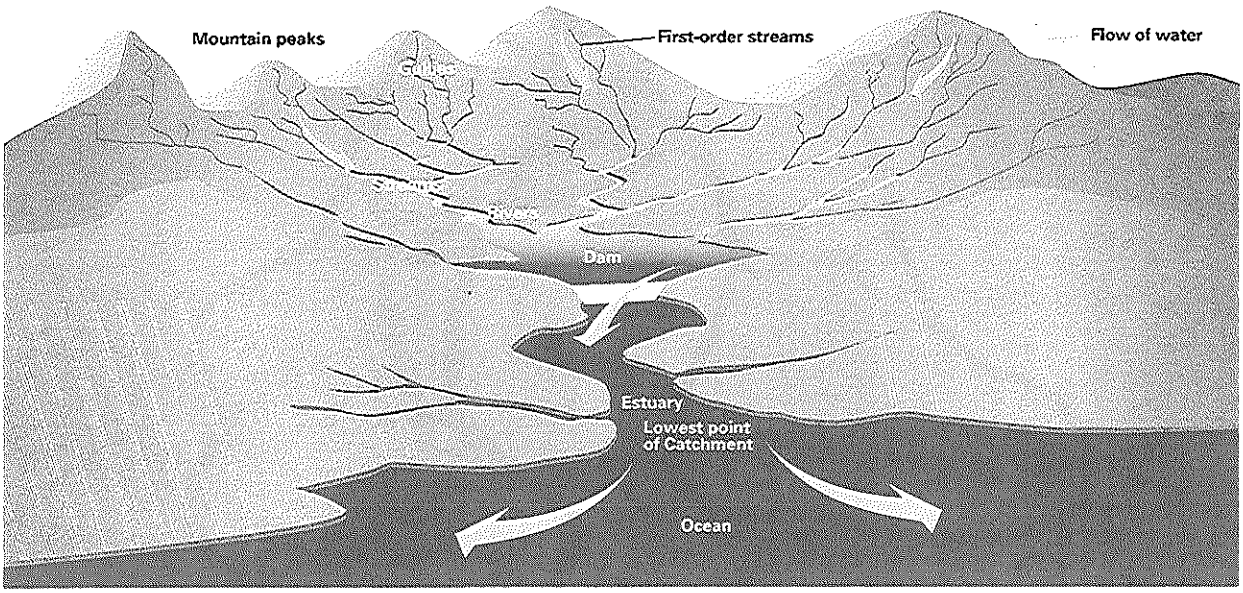
Understanding how catchments work is very important because whether we live high up in the hills or down by the coast, we all have an effect on the health of our environment. We are all connected by the waterways that flow from the mountains through the catchment to the ocean.

Water falling on the streets and in our backyards flows down into the stormwater system, then out to the local creek and river and ends up in Moreton Bay. This water is not treated at all along its journey. Therefore rubbish, leaked car oil on the roads, excess fertilisers from gardens and other pollutants will flow with the stormwater into waterways and harm the natural environment. The catchment connects us all, showing that "we're all in the same boat" and what we do in our backyard affects the health of the waterways.

The invisible waterways – 'first-order' streams

A large proportion of the waterways in South East Queensland are made up of small gullies in the top or 'upper' parts of the catchment. For much of the time, these are dry and not easily identifiable as important parts of the waterway system. However after rain, they become the drainage lines where runoff from rain collects and runs together to form the larger streams and rivers in the lower parts of the catchment.

In South East Queensland these gullies, or first-order streams make up a very large proportion of the length of our waterways. There are approximately 7,500 km of gullies in the total waterway length of 16,000 km. Most of these small gully networks have been poorly managed in the past and have lost their native vegetation cover. Vegetation plays an important role in holding the soil in place, preventing gully erosion particularly during heavy rainfall. Soil erosion in the upper catchment contributes to the sediment that can smother sea grass in Moreton Bay. The more protective vegetation there is to cover these upstream gullies, the greater the chance the waterways downstream will be healthy.



A catchment is an area of land surrounded by natural high features such as hills or mountains. All the runoff from rainwater in this area will flow to a low point like a stream or river and eventually out to the bay.

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Avoca Vale Qld 4306

Section 2(g) A: Regional Planning Systems continued

Submission

1. That the above Co-ordination Group **DID NOT**:

   (i) Define the:

   (a) natural boundary of SEQ as the ***escarpment of the Great Dividing Range*** (refer to **Attachments E and F**), *and*

   (b) **western** boundary as this natural boundary, but accepted the *19th century visually surveyed western boundary of the previous Esk Shire (now the Somerset Region)* instead of a *modern laser survey of the* ***natural catchment boundary*** *of the* ***Brisbane River****; and*

   (ii) Adopt the Queensland Government **NATURAL RESOURCES AND WATER PLANS** – particularly the ***Moreton Draft Resource Operations Planning Area*** (refer to **Attachment G**) which clearly and accurately show the ***total catchment areas*** of the:

   - *Upper Brisbane River* ***above*** *Wivenhoe Dam* ,
   - *Bremer River* ***below*** *Wivenhoe Dam, and*
   - *Lockyer Creek* ***below*** *Wivenhoe Dam,*
     (In view of the Lockyer Creek having 14 sub-catchment creeks entering it, it would appear more appropriate for it to be named Lockyer River).

   (iii) Appear to consider the anomaly that the previous Shire Council amalgamations left 5 *Regional Councils* responsible for headwaters of the **Upper** Brisbane River **above** Wivenhoe Dam with the Somerset Regional Council responsible for the major section of the **Upper** Brisbane River **above** Wivenhoe Dam and the growing satellite towns on the **Lower** Lockyer River (?Creek) which enters the **Mid-section** of the Brisbane River **below** Wivenhoe Dam (refer to **Attachment H**).

2. That the above Co-ordination Group appeared to have also failed to consider the old adage:

"Flowing water respects neither the laws of man nor the rights of individuals".

The 2011 Flood was a disaster waiting to happen.

It must be corrected by placing a single Regional Council in complete control of each Catchment, if we are to minimise the impact from future floods.

[redacted]
Avoca Vale Qld 4306

Section 2(g) AA: Local Planning Systems

Submission

That the following recommendations to amendments in local planning systems be adopted:

(i) a single Regional Council must be placed in complete control of each Catchment, to minimise the impact from future floods and develop an integrated environmental strategy; and

(ii) Divisional representation must be reinstated for each Regional Council; and

(iii) each Council Division must be delineated by a Sub-catchment and community within that Sub-catchment, with each Councillor responsible for co-ordination with the Council Office, Disaster Centre and local Police.

Section 2(g) B: All aspects of land use planning

Submission

This Submission is detailed in the following attachments:

(i) Submission by Mrs V.D. Burnett (an elder aged 83) to the **First Round Consultations of the *Somerset Futures*** dated 24 November 2010 (refer to **Attachment J** – retyped copy of submission with accompanying enclosures mentioned therein).

(ii) ***A Fluvial Audit of the Upper Brisbane River: A Basis for Assessing Catchment Disturbance, Sediment Production and Rehabilitation Potential*** (Shellberg, Jeffrey & Brooks, Andrew (August 2007, Executive Summary pp. 1-7 and Key Outcomes and Recommendations pp. 8-9) Australian Rivers Institute, Griffiths University, Nathan Qld (refer to **Attachment I**)).

It is further submitted that smaller dams up Emu and Cooyar Creeks on the **Upper** Brisbane River (surveyed by Snowy Mountains Authority and which do not interfere with infrastructure (roads, electricity or telephone services)) should be built to offset the already existing siltation that reduces dam storage capacity in the Wivenhoe Dam.

[redacted]

Avoca Vale Qld 4306

Conclusion

One woman – a determined elder of 83 years – with experience in CSIRO Division of Plant Industry Cooper Laboratory at Lawes and St Lucia; who between 1970-1990 travelled widely throughout the world in relation to Angus Cattle breeding, land management, environmental issues and general tourism; and with 55 years practical experience farming on the **Upper** Brisbane River with her husband, a former prisoner-of-war, who dedicated his life to saving the degraded **Upper Brisbane Valley**, his place of birth, and who to this end:

(i) in 1973 donated 5 acres of ***"Rathburnie Fauna Sanctuary"*** (originally an Aboriginal campsite above the junction of Avoca Creek and the **Upper** Brisbane Rive) to Lions International, that established under the Commonwealth RED Scheme **Camp Duckadang**, an environmental and recreational venue which caters for up to 100 people; and

(ii) in 1987 bequeathed the 1700 acre ***"Rathburnie Estate Nature Refuge"*** in trust to World Wide Fund for Nature Australia for education, research and demonstration into environmental and economic sustainable farming practices.

Prior to the Queensland Floods Commission of Inquiry 2011, this one woman seemed to have no chance to constructively influence a local and regional planning system for the **Upper** Brisbane Valley.

Please consider!

[redacted]

Mrs V D Burnett
(Grass and Cattle Farmer 1952 to present)

[redacted]

Avoca Vale Qld 4306
Upper Brisbane River Valley

(Enclosed herewith for electronic transmission is Attachment A only. The remaining attachments will be forwarded with the original submission by post.)

[redacted]

Avoca Vale Qld 4306

ATTACHMENT A

Summary of letter to the Brisbane Lord Mayor dated 1 November 2010 from Valmai Burnett:

Page 1: Department of Natural Resources January 2009 MAP OF MORETON DRAFT RESOURCE OPERATIONS PLANNING AREA (refer to **Attachment A1**) on which the natural western boundary of the Brisbane River Catchment is the escarpment of the Great Dividing Range; and

Department of Infrastructure & Planning DRAFT STRATEGY FOR SE QUEENSLAND MAP which followed the 19th century **administrative** surveyed boundary, of the SEQ Basin Flow Natural Boundaries.

Page 2: Subsequent STRATEGY PLANS FOR SEQ reinforced this unnatural boundary and Mrs Burnett quoted: ***"Flowing water respects neither the laws of man nor the rights of individuals".***

This anomaly was compounded by the subsequent AMALGAMATION of EXISTING SHIRES into REGIONAL COUNCILS under the old **administrative** 19th century visual surveys.

YET

The Federal Government established SEQ Catchment Authority (a non-statutory body, unlike in NSW, on **natural** boundaries (refer to **Attachment A2**).

Page 3: Outlined anomalies in REGIONAL COUNCIL areas of custodianship **above** and **below** Wivenhoe Dam.

Page 4: Outlined "causes for concern" in catchment custodianship:

(a) Regrowth of Native Trees effect on water supply,
(b) Escalating Weed Infestations, and
(c) Increasing siltation of Somerset and Wivenhoe Dams and turbidity in Brisbane City.

Page 5: Outlined irresponsible response of Somerset Regional Council to control of noxious weeds on Council roads and lands; and

Concern of Professor Joe Baker AO, OBE, FTSE, MSc, PhD, FRACI, C. Chem (Senior Scientist Qld DPI) of synthetic chemicals used to control escalating weed outbreaks leaching into waterways.

Page 6: Program of WET SEASON SPELLING OF NATIVE PASTURES (as introduced by CSIRO Ecograze Project to save the Great Barrier Reef) must be introduced to the **Upper** Brisbane Catchment to reduce chemicals and siltation entering Wivenhoe and Somerset Dams.

Page 7: Meat and Livestock Australia (Weekend Australian of 23/01/10) wrote:

> ***...beef and veal prices had fallen steadily since 2005, bringing the fall since that time to around 15%;*** and

Professor Julian Cribb (Queensland Country Life of 06/05/10) wrote:

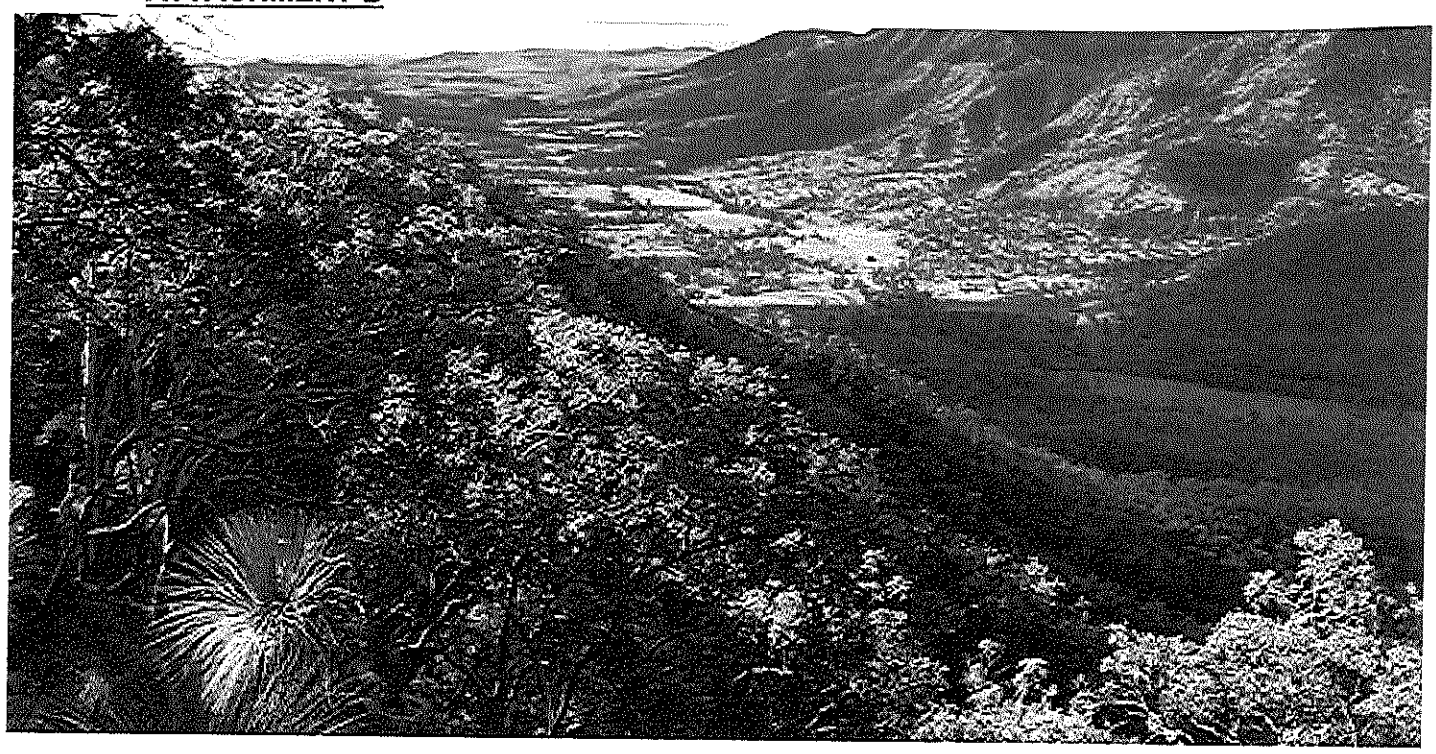
> ***...everyone in society receives fair pay – except for farmers.***

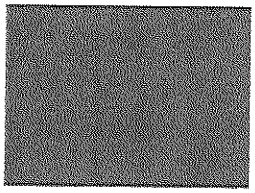
The well-being of all Australians depends on how well landholders can husband the land. It takes people to "husband" the land; and people are in short supply on the land today.

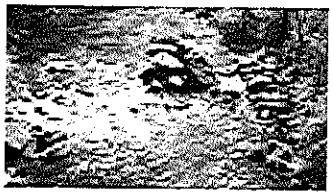
This letter offered possible solutions.

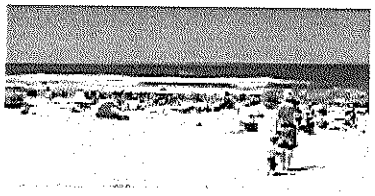
[redacted]
Avoca Vale Qld 4306

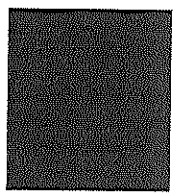
ATTACHMENT B











South East Queensland

Natural Resource Management Plan 2009–2031

Regional targets to support the sustainability framework of the South East Queensland Regional Plan 2009–2031

Queensland Government

ISBN 9311662183491 #28951

Disclaimer

The *South East Queensland Natural Resource Management Plan 2009–2031* does not commit, or pertain to commit, government agencies to implement, fund or otherwise resource specific activities or programs.

More information

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Photos: Thank you to the following agencies and individuals—DERM, Department of Infrastructure and Planning, South East Queensland Catchments Ltd, Gary Scaroni and Melinda Serico.

Working in partnership

The South East Queensland Regional Coordination Group incorporates: State Government and SEQ Traditional Owner Alliance, Growcom, SEQ Catchments Ltd, SEQ Healthy Waterways, Consortium for Integrated Resource Management, Queensland Conservation Council, SEQ Water, and Council of Mayors (SEQ).

With a mission to support and improve through partnership the regional natural resource management arrangements for South East Queensland

Queensland Government
South East Queensland Regional Coordination Group

Queensland Conservation

Council of Mayors South East Queensland

SEQ Catchments
Healthy Land – Healthy Water

growcom
together we grow

seqwater
WATER FOR LIFE

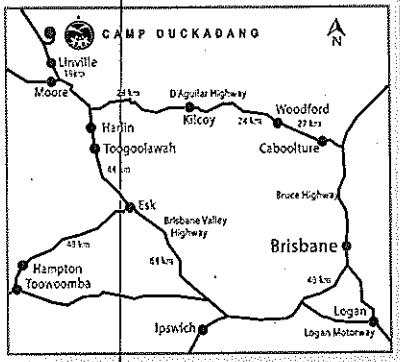
Healthy Waterways

CIRM

SEQ

Location

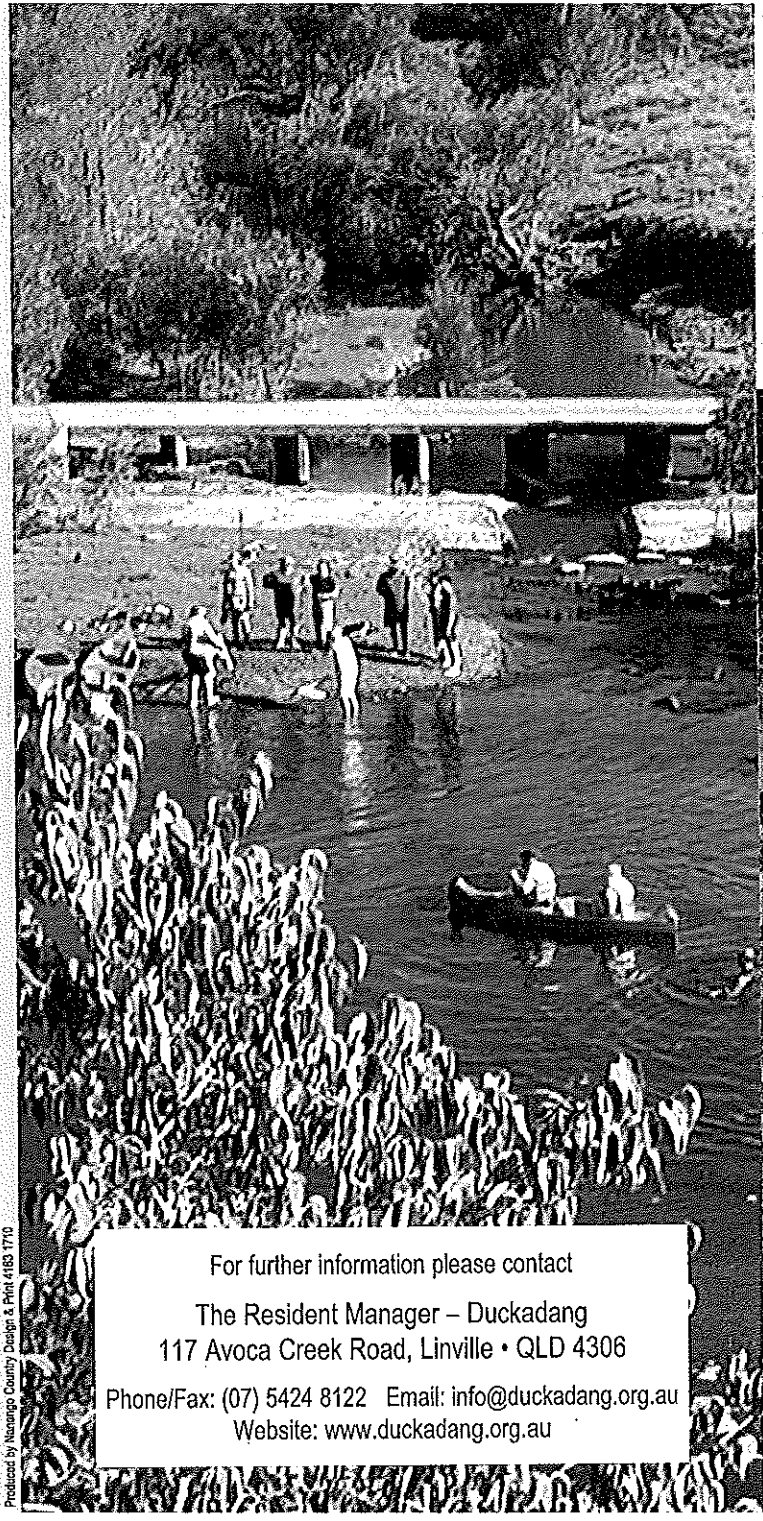
Duckadang is nestled between Blackbutt and Conondale Ranges and is within an easy two hour drive of the Brisbane CBD and other major population centres of southeast Queensland.



Invitation

Duckadang caters for schools, community and service organisations, recreational clubs, support agencies and business groups for meetings, training and recreational pursuits. Our managers will ensure that your group has a memorable stay and becomes one of our many regular clients enjoying the relaxed natural bushland environment.

Contact Duckadang to arrange an inspection or make your booking or visit our website at www.duckadang.org.au



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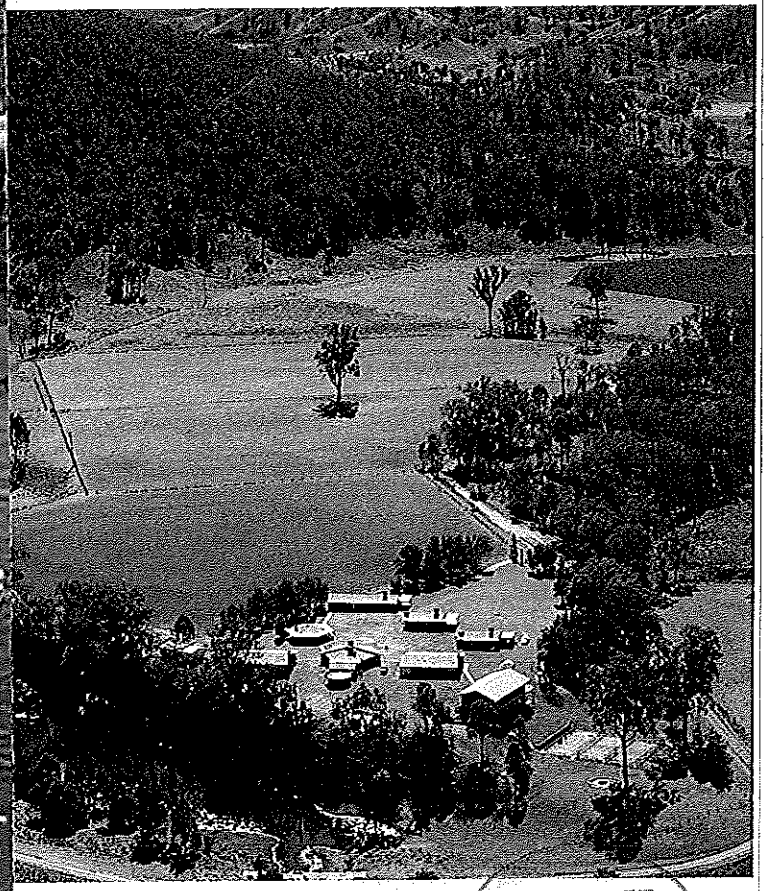
For further information please contact

The Resident Manager – Duckadang
117 Avoca Creek Road, Linville • QLD 4306

Phone/Fax: (07) 5424 8122 Email: info@duckadang.org.au
Website: www.duckadang.org.au

DUCKADANG

A RECREATIONAL CAMP FOR YOUTH AND ADULT GROUPS IN A MAGNIFICENT RURAL SETTING



Origin

Duckadang is a recreational and meeting facility that is owned and operated by Lions Clubs International. Situated on a 1.5 hectare site on the upper reaches of the Brisbane River, it was named after a local aboriginal leader. Our mission is to provide unique educational, recreational and environmental opportunities through the provision of high quality facilities, programs and services for youth, the disadvantaged, community groups and other organisations.

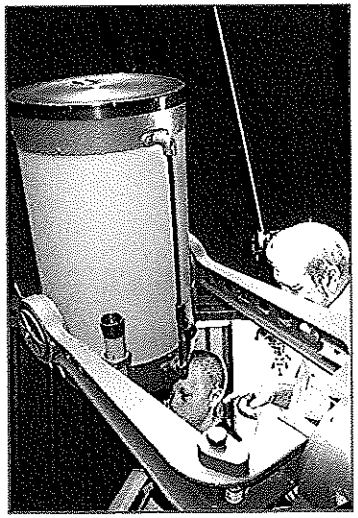
Facilities

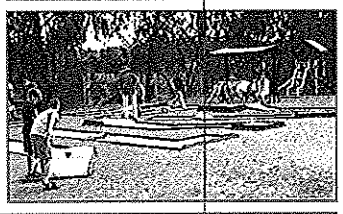
Duckadang's facilities include:

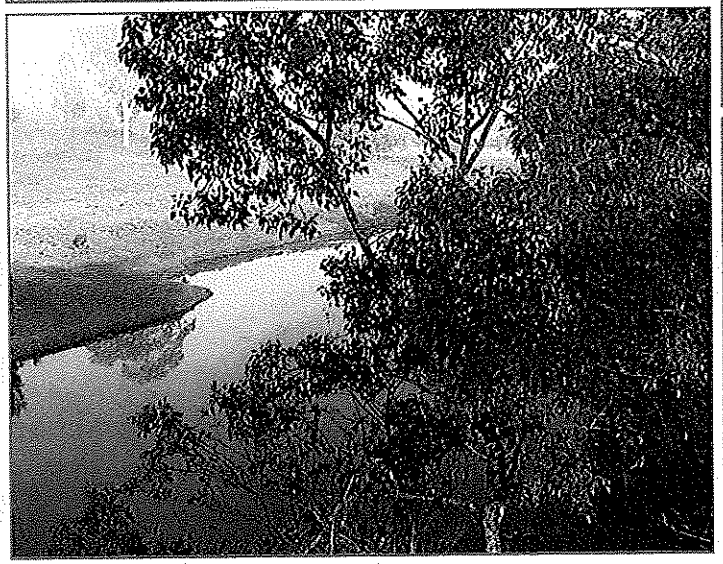
- Bunk-style accommodation for up to 90 people
- Modern amenities in each dormitory
- Fully equipped meeting facilities
- Large dining hall with professional catering
- Rotunda with BBQ and outdoor seating
- Indoor recreational facilities
- Swimming pool
- Astronomical observatory with television link
- Open-air chapel

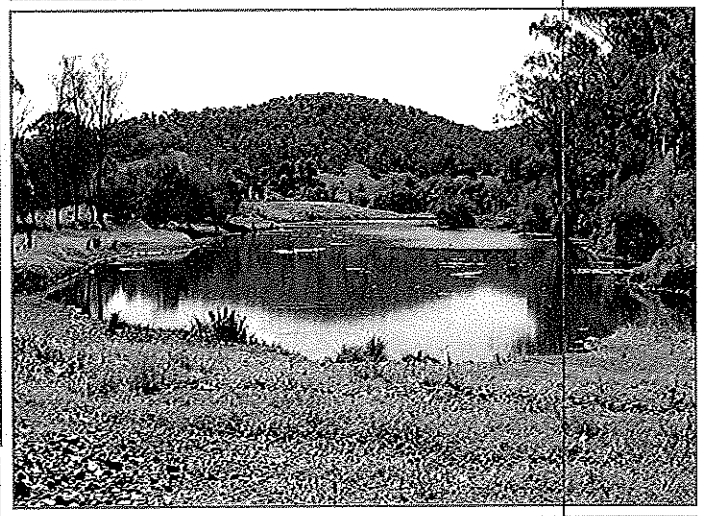
Recreational pursuits include tennis, basketball, volleyball, canoeing, table tennis, bowls, rope activities, abseiling, mini golf and an exercise course.

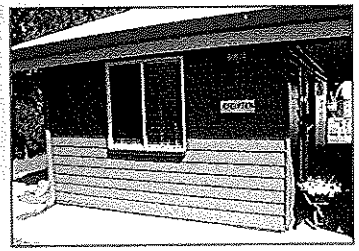
DUCKADANG

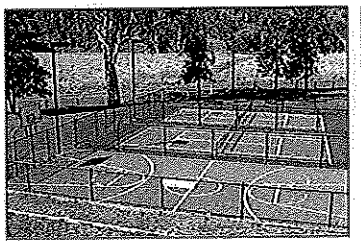


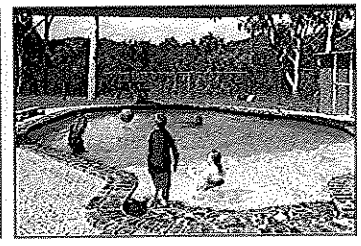


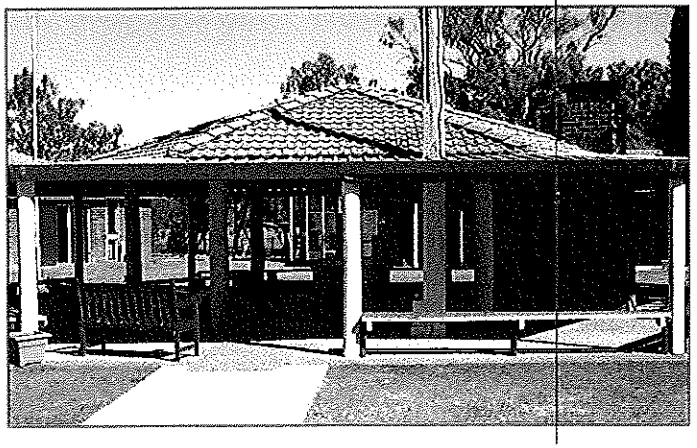












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Avoca Vale Qld 4306

ATTACHMENT C

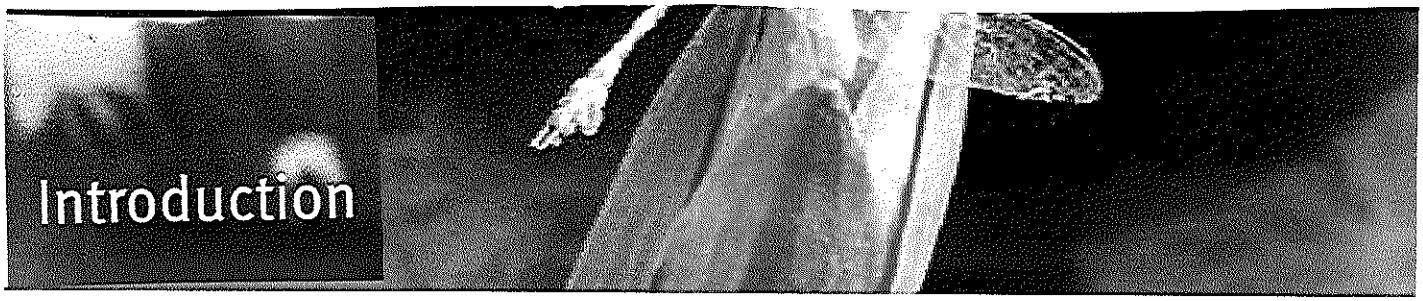
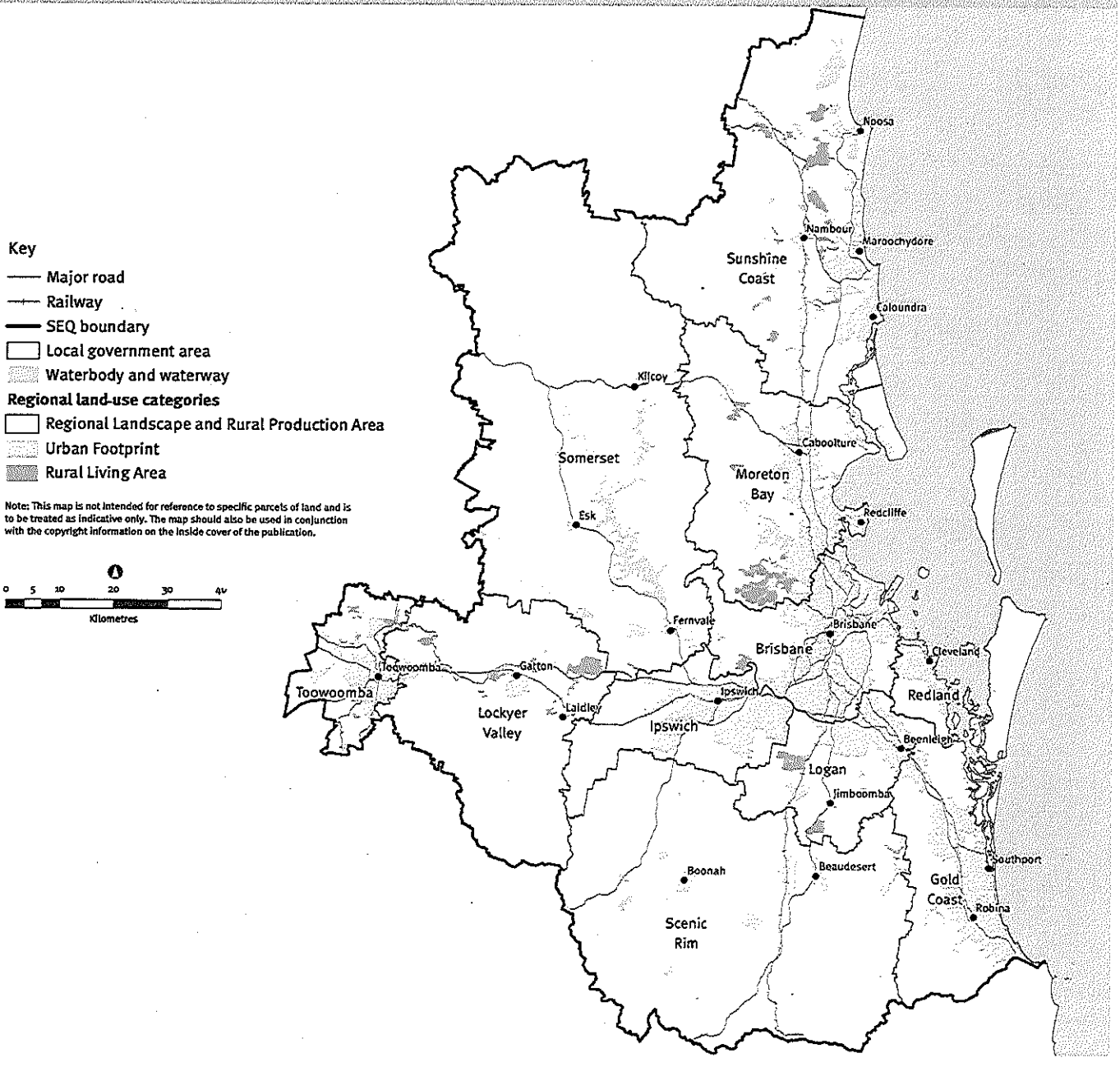


Figure 1.1 Map of SEQ region



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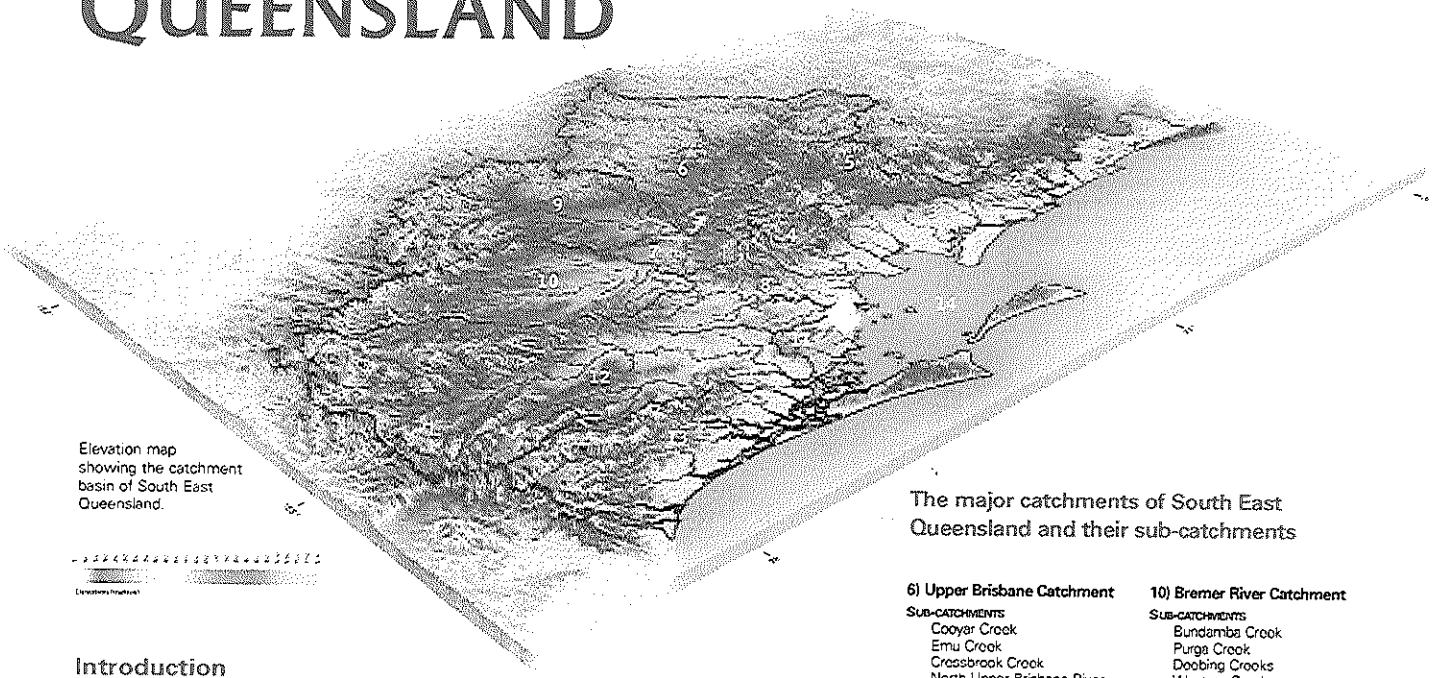
Avoca Vale Qld 4306

ATTACHMENT D

CATCHMENTS OF SOUTH EAST QUEENSLAND



Elevation map showing the catchment basin of South East Queensland.

Introduction

South East Queensland (SEQ) is a diverse mosaic of mountain ranges, hills, valleys, rivers, lakes, floodplains, beaches, bays and islands, from the Gold Coast south, north to Noosa and west to Toowoomba. These environments support a rapidly growing population of 2.7 million people and many rich and varied habitats that are home to a great diversity of plants and animals.

South East Queensland Catchment Facts

A catchment is an area of land surrounded by natural high features such as hills and mountains from which all runoff water flows to a low point through a network of waterways. Under the influence of gravity, rain falling on the land flows from the top of the catchment through small gullies and streams, into larger rivers and then to the bay.

In the South East Queensland catchment, the high points are the hills and mountains of the Great Dividing Range that circles the outer edges of the region. The total catchment area is 22 672 square km including the 1523 square km of Moreton Bay. This whole catchment area is divided into major catchments, each with their own sub-catchments.

Many of these waterways contribute to the Moreton Bay Marine Park, which stretches from Southport up to Caloundra, encompassing some tidal rivers and extending east three nautical miles offshore.

The major catchments of South East Queensland and their sub-catchments

1) Noosa River Catchment
SUB-CATCHMENTS
- Teewah Creek
- Upper Noosa River
- Lower Noosa River
- Kin Kin Creek / Cootharaba
- Cooroibah
- Noosa River Wetlands
- Weyba
- Beaches & Coastal Waters

2) Maroochy Catchment
SUB-CATCHMENTS
- Maroochy River Estuary
- North Maroochy River & South Maroochy River
- Coolum Creek
- Yandina Creek
- Petrie Creek
- Yandina Creek
- Paynter Creek
- Eudlo Creek
- Stumer Creek
- Beaches & Coastal Waters

3) Pumicestone Region Catchment
SUB-CATCHMENTS
- Bells Creek
- Mellum Creek
- Elimbah Creek
- Caboolture River
- Burpengary Creek
- Bribie Island
- Beaches & Bay Waters

4) Pine Rivers Catchment
SUB-CATCHMENTS
- North Pine River
- Kurwongbah
- South Pine River
- Saltwater Creek
- Redcliffe Peninsular
- Beaches & Bay Waters

5) Somerset Stanley River Catchment
SUB-CATCHMENTS
- Eastern Stanley River
- Western Stanley River
- Southern Stanley River

6) Upper Brisbane Catchment
SUB-CATCHMENTS
- Cooyar Creek
- Emu Creek
- Cressbrook Creek
- North Upper Brisbane River
- South Upper Brisbane River
- Lake Wivenhoe

7) Mid-Brisbane River Catchment
SUB-CATCHMENTS
- Spring Creek
- England Creek
- Black Snake Creek
- Branch Creek
- Lake Manchester
- Boreilon / Mt Crosby
- Mid-Brisbane River

8) Lower Brisbane Catchment
SUB-CATCHMENTS
- Brisbane River Estuary
- Breakfast Creek
- Bulimba, Stacks & Scrubby Creek
- Cabbage Tree Creek
- Cubberla, Sandy, Tockwong and Witton Creeks
- Jindaloo and Mt Ommaney Creeks
- Kedron Brook and Boggy, Jubilee and Crab Creeks
- Moggill Creek
- Norman and Perrin Creeks
- Nundah and Nudgee Creeks
- Oxley Creek
- Pullen Pullen, Bellbowrie, Farm Kholo and Little Ugly Creeks
- Wolston and Woogaroo Creeks
- Six Mile, Goodna and Sandy Creeks

9) Lockyer Creek Catchment
SUB-CATCHMENTS
- Murphys Creek
- Gatton Creek
- Sandy Creek
- Sandy Creek – Grantham
- Flagstone Creek
- Ma Ma Creek
- Tenthill Creek
- Lake Clarendon
- Sandy Creek – Forest Hill
- Laidley Creek
- Lake Dyer
- Woolshed and Plain Creeks
- Bjarraba Creek
- Lake Atkinson

10) Bremer River Catchment
SUB-CATCHMENTS
- Bundamba Creek
- Purga Creek
- Deebing Creeks
- Western Creek
- Warrill Creek
- Reynolds Creek
- Bremer River

11) Redland Catchments
SUB-CATCHMENTS
- Lota and Wynnum Creeks
- Tingalpa and Coolnwynpin Creeks
- Terradarrapin Creek
- Hilliards Creek
- Eprapah Creek
- Moogurrapum Creek
- Cleveland and Thornlands
- Coochiemudlo Island
- Russel Island
- Karragarra Island
- Lamb Island
- Beaches & Bay Waters

12) Logan Albert Catchment
SUB-CATCHMENTS
- Logan River
- Albert River
- Teviot Brook

13) Gold Coast Catchments
SUB-CATCHMENTS
- Pimpama River
- Coomera River
- Coombabah
- South Stradbroke Island
- Biggera Creek
- Loders Creek
- Nerang River
- Mudgeeraba Creek
- Tallebudgera Creek
- Currumbin Creek
- Flat Rock Creek
- Coolangatta Creek
- Beaches & Coastal Waters

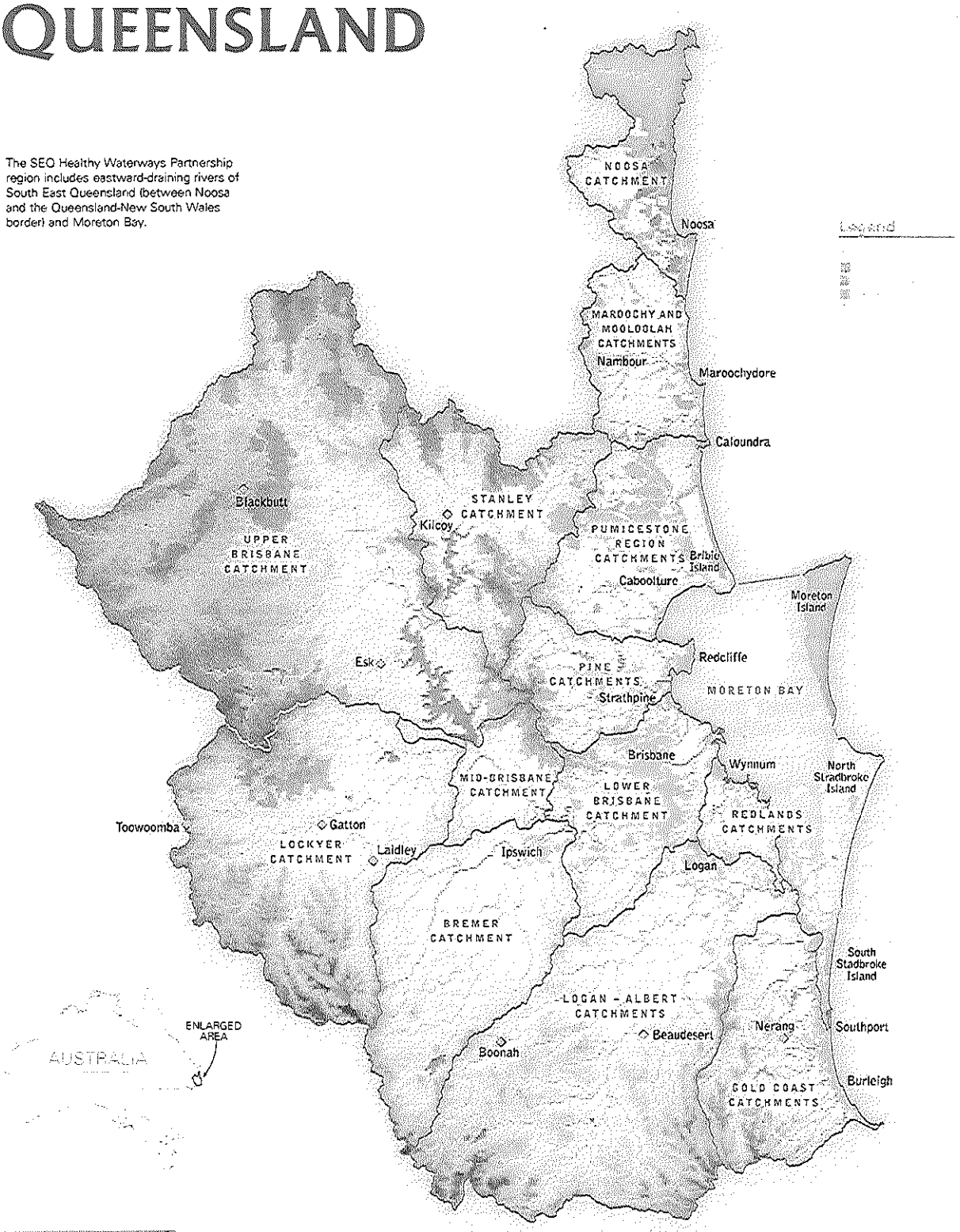
14) Moreton Bay
SUB-CATCHMENTS
- Bramble Bay
- Waterloo Bay
- Eastern Moreton Bay
- Southern Moreton Bay

[redacted]
Avoca Vale Qld 4306

ATTACHMENT E

CATCHMENTS OF SOUTH EAST QUEENSLAND

The SEQ Healthy Waterways Partnership region includes eastward-draining rivers of South East Queensland (between Noosa and the Queensland-New South Wales border) and Moreton Bay.

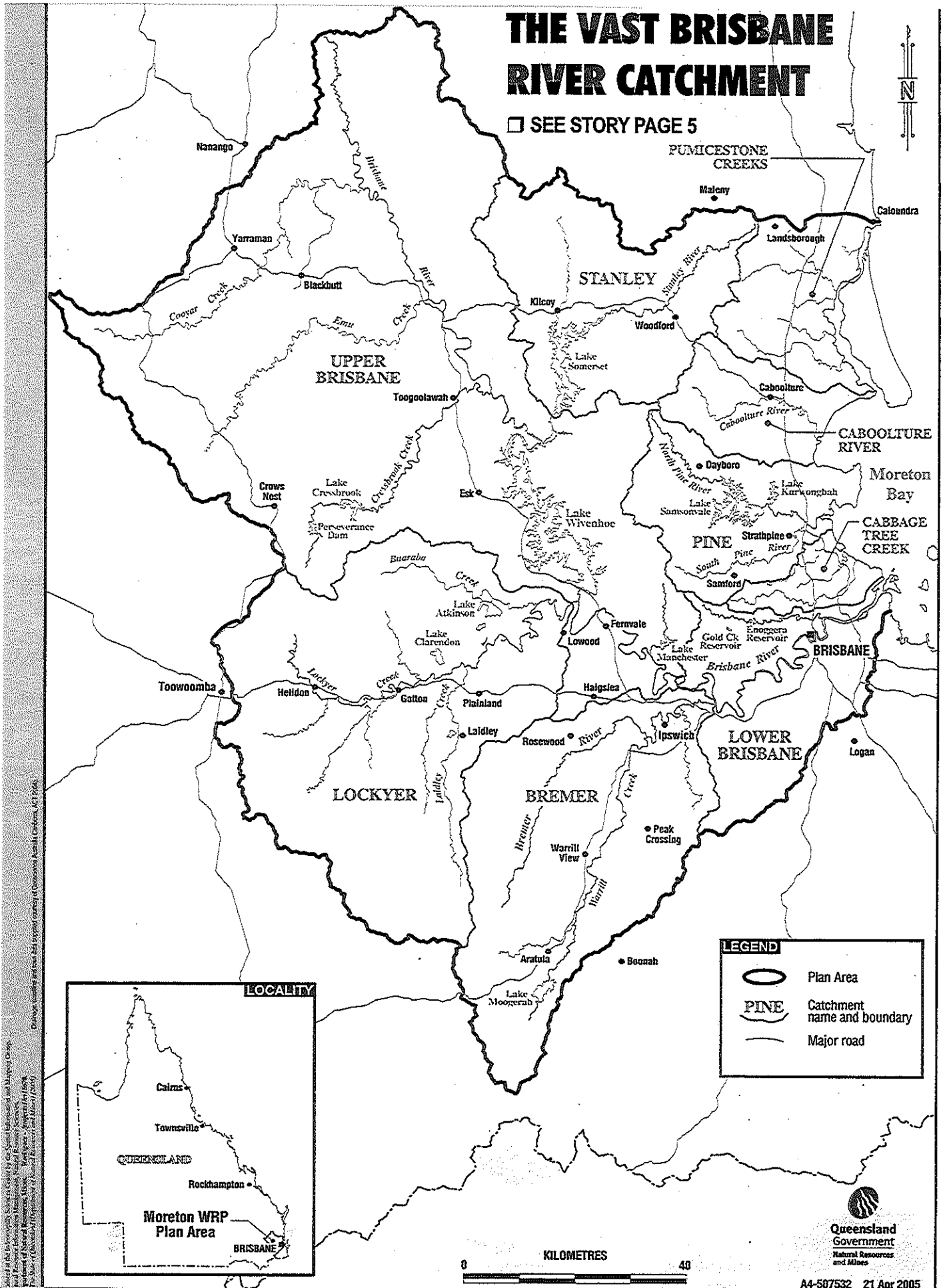


HEALTHY WATERWAYS

For further information about the SEQ Healthy Waterways Partnership telephone **(07) 3402 4206** or visit: **www.healthywaterways.org**

[redacted]
Avoca Vale Qld 4306

ATTACHMENT F

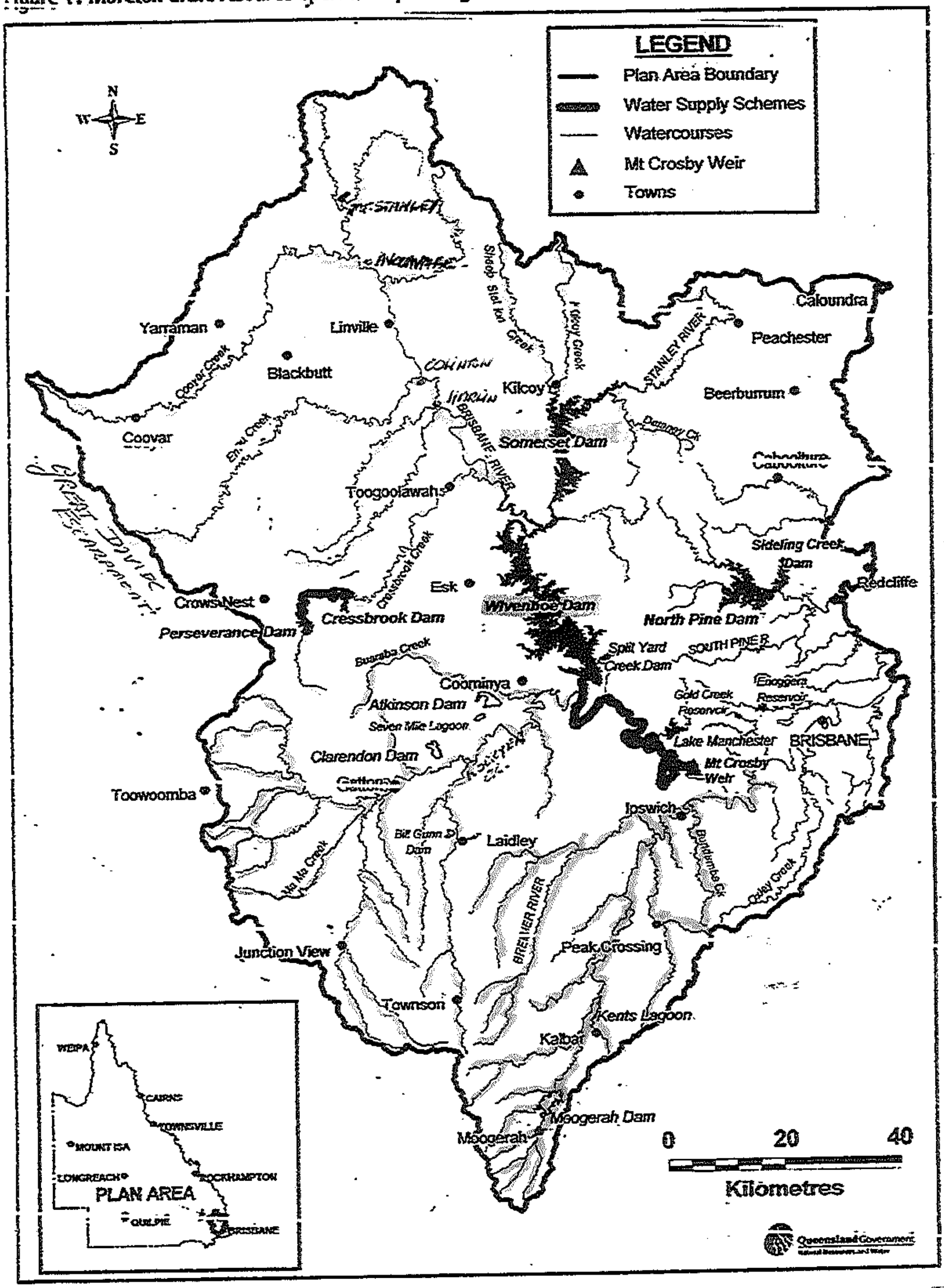


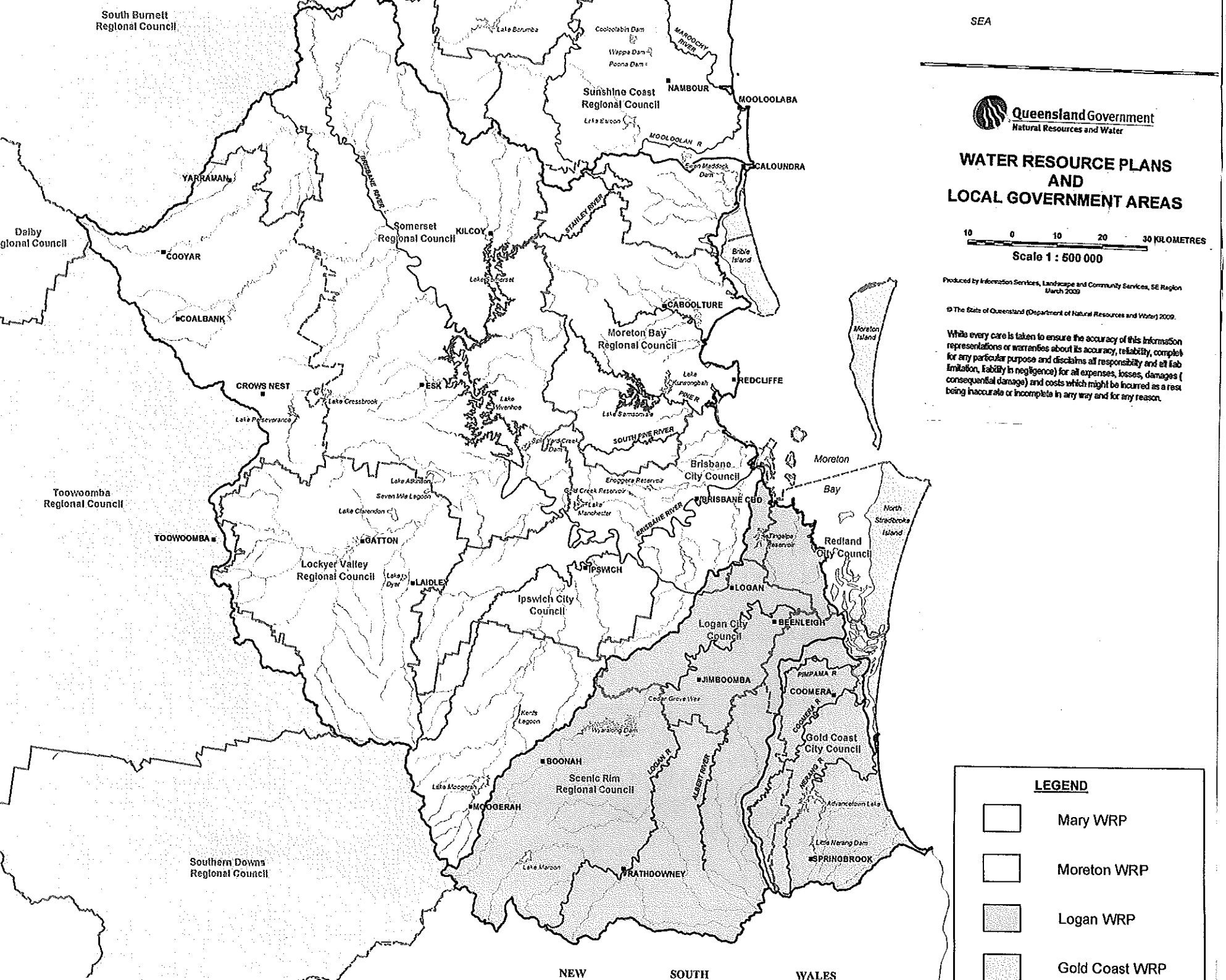
[redacted]
Avoca Vale Qld 4306

ATTACHMENT G

Figure 1. MORETON DRAFT RESOURCE OPERATIONS PLANNING AREA - January, 2009. prepared by Dept. Natural Resources & Water, Queensland Government.
It includes the total catchment of the Brisbane River and coastal streams entering Moreton Bay north to Caloundra.

Figure 1: Moreton draft resource operations planning area





Queensland Government
Natural Resources and Water

WATER RESOURCE PLANS AND LOCAL GOVERNMENT AREAS

10 0 10 20 30 KILOMETRES

Scale 1 : 500 000

Produced by Information Services, Landscape and Community Services, SE Region
March 2009

LEGEND

- Mary WRP
- Moreton WRP
- Logan WRP
- Gold Coast WRP

This submission contains extracts from the report:

Shellberg, J.G. and Brooks, A., 2007. *A Fluvial Audit of the Upper Brisbane River: A Basis for Assessing Catchment Disturbance, Sediment Production, and Rehabilitation Potential*. A Report to the Southeast Queensland (SEQ) Catchments Management Authority by the Australian Rivers Institute, Griffith University, Brisbane Australia, 149 pp.

The full report is available at:
http://tinyurl.com/upper-brisbane-r-report.

[redacted]

ATTACHMENT J

Rathburnie Estate Nature Refuge

[redacted]

Somerset Regional Council area
Telephone/Facsimile: 07 54248140

24th. November 2010

Somerset Futures, First Round Consultation

SUBMISSION

INTRODUCTION

Aged [redacted] and having lived at "Rathburnie" for the past 55 years since my marriage in Brisbane and working at C.S.I.R.O. Cooper Laboratory at Gatton and St. Lucia, I wish to take part in the Consultation advertised: but age precludes me travelling at night, nor am I computer literate.

(a) AREA

Somerset Regional Council is unique in that it could and should cover the whole of the upper Brisbane River Catchment above the Wivenhoe & Somerset Dams – the main water supply for the capital city of the State.

In order to enjoy the prestige this unique area could achieve (somewhat similar to the Muskingum Conservancy District in U.S.A.) the boundaries of the Council should be resurveyed by Laser to encompass the headwaters of all the Brisbane and Stanley Rivers (now included within four other Regional Council boundaries), making the Somerset Regional Council responsible and credited with a comprehensive environmental management Future: a Blueprint for the Future of similar Catchments.

By encompassing the whole of the upper Brisbane and Stanley River catchments, it would also simplify the work of the N.R.M. Federal Government funded S.E.Q. Catchments Authority, thereby extending the scope of this funding.

(b) TIMBER THINNING

Native timber regeneration thickens after fires into dense stand of useful and useless regrowth which in its early stages of growth requires considerable water from the aquifers resulting in depleted stream flows.

Younger timber also sequesters little carbon when compared with 3P Perennial grasses which can grow under less density of young trees if managed under C.S.I.R.O. "Ecograze" system of wet-weather spelling.

Road verges throughout the Somerset Region should therefore be thinned to enable useful mill logs and/or fencing timber to grow, whilst conserving water and controlling noxious and nationally important weeds in the understorey to prevent their spread into adjacent private property.

(bb) THINNING OF USELES REGROWTH TREES

At a recent Native Forest Management Practice Field Day held at Camp Duckadang and attended by 60 landholders, Agforward (in conjunction with Agforce, SEQ. Catchments and DEEDI) offered financial incentives for marking suitable trees for thinning.

After trees are marked, Somerset Regional Council would engage the Queensland Government funded Green Army – 'working on projects of strategic importance to enhance our natural assets" – to carry out the less skilled deadening of the marked trees.

DEEDI controls the Queensland Green Army/Traineeships and draws on expertise from D.E.R.M. and the Local Government Association of Queensland; and awards grants to Local Government to "focus on revegetation and regeneration and weed clearing".

(bbb) NEW OPPORTUNITY FOR FOREST RESOURCES

New exciting uses for lignous cellulose (wood chips, woodwaste from logging and thinnings of excess regrowth timber) are being developed. Somerset Regional Council could lead the way in utilisation to provide bio-fuels instead of carbon emissions. (Refer "Global Edge with Ethanol Advance attached)

(c) HEALTHY WATERWAYS

In order to reduce excess run-off and erosion from our degraded natural pastures, Council should initiate a project based on "WET SEASON SPELLING (MLA, DPI & CSIRO Brochure attached).

Wet-Season Spelling can be implemented using fairly simple two, three or four paddock grazing systems. However, whilst CSIRO "Eco-Graze" project established "Wet-Season Spelling regime was cost-effective, it was assumed considerable amounts would need to be spent on fencing and water in order to implement this sustainable rotational grazing system".

MLA recently published a finding that landholders had received 15% less than in 2005 for beef production; and it would be necessary for Council to apply for funding under "Caring for our Country" Federal grants to allow rate reduction to landholders practising wet-season spelling. S.E.Q. Catchments would monitor results.

Such a system has many other benefits – the surplus pasture, manure and litter will mulch the soil surface thereby minimising evaporation, erosion and excessive run-off (dam siltation) whilst feeding the soil biota, the aquifer for long stream flows and increase the CARBON CONTENT in the soil instead of the atmosphere.

(d) TOURISM

(1) Roadsides in Toogoolawah Valley should be planted with avenues of eucalypts suitable to grow into mill logs – as in Argentina. This would aid the micro-climate and promote tourist routes to the Somerset Dam etc.

(2) Wivenhoe Dam could be the venue for regattas.

(3) Esk Choir could conduct "Songs of Praise" (B.B.C. Sunday T.V. similar program) on shores of Wivenhoe Dam Lake.

(4) Public lands adjoining Wivenhoe Lake could be developed along the lines of "Woolaroc" Indian complex in Bartlesville, Oklahoma, built on the Phillips Oil retreat. This comprises museum, art gallery, crafts, and a nature walk (bush tucker) with the main attraction a half-moon steep-seated theatre presenting a multi-facet production telling the history of the Aboriginals from the dream-time to present day, with live presentations also on the stage. It would be a great tourist attraction, including passengers from ships visiting Brisbane.

(e) ROAD VERGES & PARKLANDS

In Holland they slash the dykes, and in Rome the airport runways, baling the material for stock fodder. Somerset Council could do likewise, baling material so slashed in round bales and selling it or storing for drought fodder.

This Submission provides Somerset Regional Council with the incentive to lead the way in "enhancing our natural assets" in a commercially viable way.

Supporting this submission is the United Nations Food & Agriculture Organisation Paper No. 8 – "Review of Evidence on Drylands Pastoral Systems (i.e. the upper catchment hills and rangelands) and Climate Change" (Pink Attachment).

Will the Somerset Regional Council Futures become a leader in Queensland's future?

[redacted]

(Mrs.) V.D. BURNETT
TRUSEE – ESTABLE G.C. BURNETT (DEC'D)

Encl.
*

"Ethanol – Global Edge with Ethanol Advance"	(Yellow)
C.S.I.R.O., M.L.A. & D.P.I. "Wet Weather Spelling"	(Green)
U.N. Review of Paper No. 8	(Pink)
Background of future of agriculture & regrowth.	(Green)

(* Copies of enclosures may be also obtained on request to V.D. Burnett)

REFERENCES:

Mrs V.D. Burnett, Aged [redacted] travelled world-wide with Angus World Forums, International Park Tours, Linblad Travel and privately. 1970-1992

MUSKINGHAM CONSERVANCY DISTRICT – Tennessee Valley, USA
"Out of the Earth" – Chapter. Louis Bromfield
"Replenish the Earth" – E.M. (Watershed) Jackson O.B.E.
Environmental visits to Muskingum led by Don MacFarlane, [redacted]
SEQ Bio-Diversity Conferences 2001,2002 and 2004

Somerset Futures, First Round Consultations

Submission of Valmai Burnett, [redacted] Avoca Vale Qld 4306,
Dated 24/11/2010

Enclosure: *"Ethanol – Global Edge with Ethanol Advance"*

Global edge with ethanol advance

LOCAL TECHNOLOGY

Dr Judith Adjani, Environmentalist with A.N.U. and Greg Hoy on A.B.C. recently described a project for Carbon Recycling Woodwaste from logging and surplus wood chips to produce biomass for electricity generation at Eden.

Whilst this is a new opportunity for forest resource, it will release stored carbon into the atmosphere:- undesirable outcome!

Apace Research at Nowra in association withthe Tennessee Valley Authority and a grant of $2m. from the Australian Greenhouse Office proved Ethanol could be produced from wood chips at a lower cost than for grain. Shell in Europe is also producting bio-diesel from lignous cellulose.

"Ethanol Technologies Ltd. is working on cellulosic technology that can quickly turn lignocellulose into ethanol"

This opens up an exciting use for
- excess wood chips
- woodwaste from logging
- regrowth excess timber thinnings

and work for Green Army Trainees to be involved in the harvest of this surplus material to provide bio-fuels instead of carbon emissions.

Note:

Such harvest of regrowth timber thinnings would reduce wild canopy bush-fires such as in Victoria in February, 2010; and produce less demand on acquifers and quicker growth of mill logs.

It would also allow light to penetrate to allow carbon-storing perennial grasses to grow in the under-storey, thus increasing cattle carrying capacity to feed an increasing world population facing depleting world fish stocks.

SWEET TALK

BILL KERR
(07) 3286 3385
kerrbill@bigpond.com

LOCALLY developed cellulosic technology that can quickly turn lignocellulosic materials such as sugarcane bagasse, woodchips and municipal green waste into valuable industrial sugars could give Australian producers of ethanol, bio-plastics and high-value chemicals a big cost advantage, according to Robert Carey, Ingham-based director/company secretary of Ethanol Technologies Limited. He says woodchips have been converted into sugars in less than 10 minutes at Etec's site at Hallwood, NSW, compared with days for competing enzymatic technology. Being able to turn waste materials into sugars so quickly means that cane farmers have a viable means of generating extra revenue from crops, the forest products has another process for maximising revenue from free thinnings and milling residues, and regional municipal councils have a solution to expanding urban green-waste problems. Mr Carey says receipt of a federal grant from AusIndustry's Climate Ready program confirms the company is on the right track in pursuing commercialisation of this cutting edge technology. Buoyed by the success of phase 1, the company has embarked on phase 2, which involves separation of acid, sugar and lignin streams, and recycling of acid and water streams. More work needs to be done to commercialise the process, but interest is strong. The first licensees to use the technology to produce biofuels could include NQ BioEnergy Corporation (a company chaired by Mr Carey) which is building a new sugar mill, ethanol and cogeneration plant at Ingham. Etitec's majority shareholder is Willmott Forests.

NEWS ~~Queensland Country Life Newspaper. P.12. 6/5/2010.~~

Food sustainability issue looms large

By ROWENA McNAUGHTON

EVER since it was identified that the global population would be at least 11.4 billion by the mid-2060s, Professor Julian Cribb, editor and principal of specialist science commentary firm, Julian Cribb and Associates, has been alarmed at the lack of attention food security is given.

His portfolio of 8000 articles, 2500 media releases and eight books boasts commentary littered with the need to confront what he deems a food shortage situation that if not addressed, will lead to "profound" consequences.

Last week, Prof Cribb, who has won 32 awards for journalism, made a final plea with the release of his book *The Coming Famine: The global food crisis and what we can do to avoid it.*

"The central issue in the human destiny in the coming half century is not climate change or the global financial crisis," Prof Cribb told a University of Melbourne deans lecture in Melbourne last week.

"It is whether humanity can achieve and sustain such an enormous harvest."

The world has failed to address the looming food crisis, he said.

And it's now going to have to try and double its food production with a "looming scarcity of just about everything necessary to produce high yields of food—water, land, nutrients, oil, technology, skills and stable climates", he said.

N.B. B.H.P. BID → FOR CANADIAN PHOSPHATE.

"By 2050, seven to eight billion people will inhabit the world's cities.

"They will use 2800 cubic kilometres of fresh water—more than the whole of irrigation agriculture uses worldwide today."

> The central issue in the human destiny is not climate change or the global financial crisis. It is whether humanity can achieve and sustain such an enormous harvest.

Desalination might supply water to some cities, but for most cities, it will be cheaper and simpler to grab the farmers' water – "which is already happening", Prof Cribb said.

In Prof Cribb's view, the world is running out of time to respond.

"Though no-one has done any accurate assessment, it appears the world may currently be losing about one percent (50,000 square kilometres) of farmland annually – due to a combination of degradation, urban sprawl, mining, recreation, toxic pollution and rising sea levels," he said.

"If we've already lost 24pc and we lose around 1pc a year from here on, you can figure out for yourself how much land our grand children will have left to double their food supply."

According to the International Energy Agency, peak oil and gas levels are due to come in the coming decade, and the phosphorus peak was passed in 1989.

At the other end, the Stockholm Institute estimates that for the past 50 years, over half the world's food produced by farmers was thrown out as waste.

Recently, the International Food Policy Research Institute has warned that climate change will lead to a 30pc drop in irrigated wheat production in Asia and a 15pc drop in rice.

African food production is tipped to halve, and it will drop by a third in India.

"Australia must capitalise on these predictions," Prof Cribb said.

The only way to stem the looming food security problem is to change current practices, he said.

Doubling the investment in agricultural science, ending waste and paying farmers more are all needed.

"Today, many people enjoy the cheapest food in human history.

"In rich countries, it is one-third the price our grandparents used to pay for it," he said, then added that devoting just a tenth of the world's current weapons spend to sustainable food production would deliver the $80 billion he believes needs to be invested.

Prof Cribb said trade barriers must be abolished in order for food production to go where it is most efficient.

"Almost everyone in society now receives fair pay – except for farmers."

The juggernaut of global trade has forgotten it cannot exist without healthy soil. It is the soils of other lands, which feed and clothe the workforce, which makes the goods for export. You cannot have a labourer in any country in this world make products for another country if that labourer cannot be fed, regardless of how cheap their labour may be.

It is the soils of other lands which feed and clothe the workforce, which makes the goods for export. Indeed, in many cases it is the soils themselves, which grow the goods for export.

The nation of Japan relies on 12 million hectares of land, outside its own landmass to maintain its inputs for production. Six million hectares of this land are in Australia, which, until profound change takes place, will not be able to maintain its current level of exports in several generations.

Everything we do, everything we export, relies on the quality of our soil and its ability to produce. In N.S.W. 70% of land is affected by at least one form of land degradation. In the Murray-Darling Basin we are losing up to $700m. worth of agricultural land every year to degradation in various forms.

G.Gillespie, - NSW Dept. Environment & Conservation
Sustainability Programs Division.
"Carbon Cycle Forum", Armidale, Sep .2005.

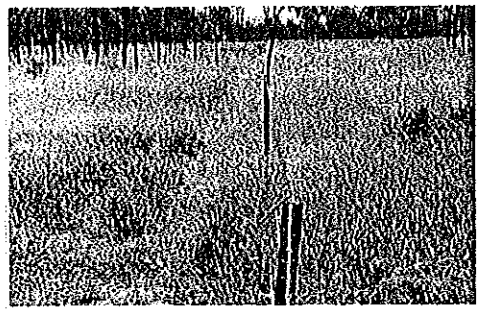
INCREASE LITTER COVER AND
INCREASE INFILTRATION OF RAINFALL

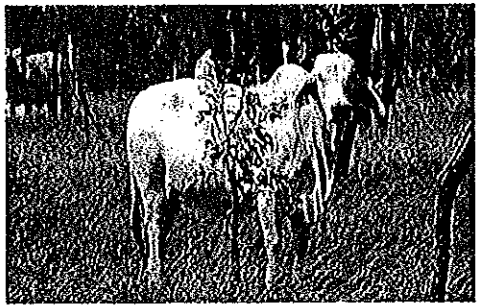
A full wet season rest allows maximum pasture bulk and, consequently, an increased amount of leaf and stem that decays and falls to the ground as litter. The presence of ground cover and litter has a direct and significant impact on the ability of the soil to soak in rainfall. This is particularly important for Indian couch dominated pastures, as Indian couch plants have a small root mass compared to 3P grass tussocks, and therefore have less ability to soak in the rain that falls.

"Gives 3P grasses a chance to recover before being preferentially grazed."

MANAGE STOCK NUMBERS TO ALLOW FOR A PLANNED QUANTITY OF PLANT MATERIAL TO BE LEFT AT THE END OF THE DRY SEASON BY SETTING PASTURE YIELD THRESHOLDS WITHIN A FORAGE BUDGET.

The DPI&F Stocktake Monitoring Workshop includes a simple program to enter paddock monitoring details and calculate feed budgets.





RECOVERING PADDOCKS NEED EXTRA CARE AND ATTENTION
COVER UP TO CONSERVE RESOURCES

Recovering C condition paddocks need extra attention to maintain and encourage the processes of recovery. In addition to conservative use of pasture and more regular full wet season spelling, it is important to retain adequate minimum ground cover and pasture reserves at the end of the dry season, to protect the soil surface and encourage rainfall infiltration. Aim for the following levels:

- ✔ Retain at least 60% ground cover at the end of the dry season to maximise rainfall infiltration.
- ✔ For C condition Indian couch pasture recovery:
  - ✔ Retain at least 500 kg/ha of dry feed at the end of the dry season in below average rainfall years and 800 kg/ha of dry feed in better seasons.
  - ✔ Encourage litter build up, 3P grass recovery and the joining of grassy patches through wet season rest.
  - ✔ Monitor land condition and balance feed supply and animal demand using the DPI&F Stocktake package.

WET SEASON SPELLING

THE KEY TO RECOVERY

Full wet season spelling, or rest, is essential to recover land in poor condition. To make the most of the precious rain that falls, you need to manage your land in ways that improve condition. This not only keeps sediment and nutrients in your paddocks, it also ensures good pasture and animal production.

Note: Also addresses problem of run-off to Great Barri Reef.

MEAT & LIVESTOCK AUSTRALIA
Free Call: 1800 023 100
Email: info@mla.com.au

DEPARTMENT OF PRIMARY INDUSTRIES AND FISHERIES
Charters Towers - Phone: (07) 47546100

CSIRO
DAVIES LABORATORY
Townsville - Phone: (07) 47538500

ALLOW THE LAND TO
RECHARGE ITS BATTERIES

Wet season spelling or rest provides a period of protection from grazing that allows the plant to replenish essential plant reserves, set seed and allow seedling recruitment. Pastures need to be spelled during the wet season when they are actively growing. Regular wet season pasture rest is essential to ensure long-term beef production.

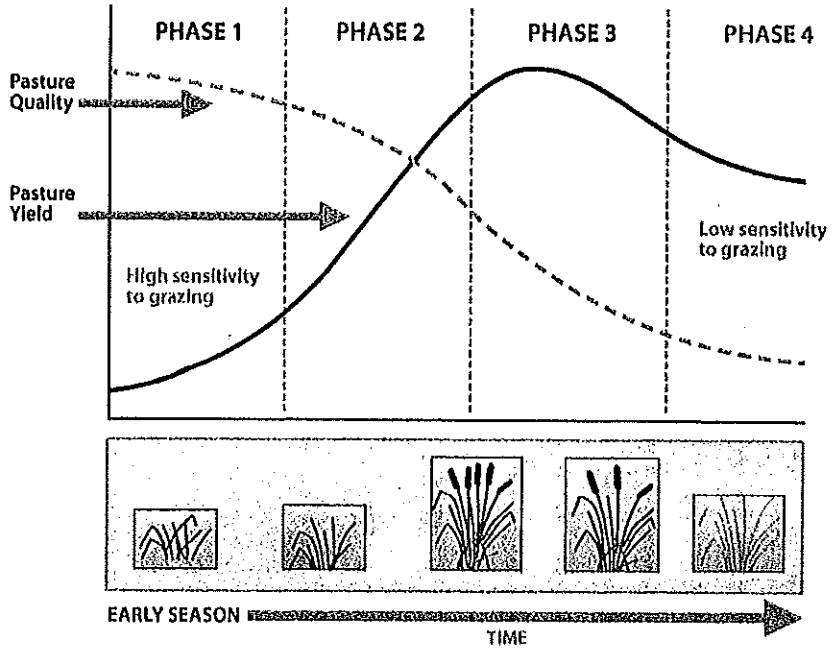
Typically, pastures are spelled after the first significant rainfall event (more than 50mm over 3 days) until the middle (early wet) or end (late wet) of the rainy season. In cases where it is difficult to shift cattle at the break of season, paddocks can simply be spelled from the last round muster. The benefits of rest, however, will only occur with complete de-stocking of a paddock, and will not be obtained through lighter stocking rates. This is because cattle will preferentially graze the 3P (perennial, palatable, productive) grasses despite other feed on offer.

"Show us the hidden costs of not allowing our land to recharge its batteries. What will it cost in lost production, soil or biodiversity, if we don't do this? I could maybe get away with not doing this, but my kids might curse me for destroying what I want to leave them."

Burdekin grazier, 2006

HOW DOES
WET SEASON REST WORK?

Resting pastures in the early wet season allows the pasture plants to awaken from dry season dormancy and rapidly build depleted energy reserves. The plants are very sensitive to grazing and are of the highest diet quality at this time. Once the pasture is in its green leafy stage of growth with moderate quality (phase 2), continued rest (late wet season rest) allows the plant to reach its potential leaf and stem bulk (phase 3) and move energy reserves into the roots and crowns to drive growth the following season. It is usually during this phase that a pasture plant flowers and seeds. However, this can occur at any stage of pasture growth, and is dependent on the plant species, the land type, and the way rain has fallen during the season. Allowing the pasture to store energy reserves also builds plant resilience to grazing and drought.



RECOVERING POOR CONDITION LANDSCAPES
MANAGING PATCHY RECOVERY

Landscapes do not recover evenly across paddocks. Recovery in C condition landscapes will be patchy, with some areas of a paddock responding quickly in terms of increased cover, pasture yield, 3P species composition and ability to trap water and nutrients. However, other areas may remain static or continue to degrade for some time. Full wet season rest for two years in a row, combined with conservative dry season grazing, is the best way to speed up the recovery process, especially in the early years. Benefit will be seen from opportunistic wet season spelling but, in recovering landscapes, the growth of new 3P grass seedlings and formation of new patches from the initial spell will be delayed and therefore recovery will be slower.

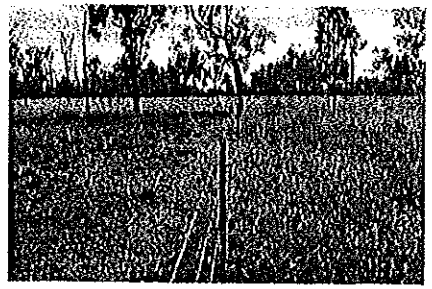
TO RECOVER LAND IN POOR (C) CONDITION, REQUIRES THE REMOVAL OF ALL GRAZING ANIMALS OVER THE FULL LENGTH OF THE WET SEASON. FULL WET SEASON REST FOR TWO SUCCESSIVE YEARS IS NECESSARY TO SPEED UP THE RECOVERY PROCESS.

Recovery of poor condition, Indian couch dominated country is likely to be slower and patchier than equivalent paddocks with a higher occurrence or scattering of 3P tussock grasses. 3P tussock grass patches provide the architecture necessary to trap and accumulate resources such as litter, where Indian couch pastures have the tendency to collapse during drought conditions. It is important to allow build-up and connectivity between recovering patches to slow the flow of water, capture and retain sediment and nutrients, and reduce landscape leakiness.

MANAGE FOR THE PROPORTION OF C CONDITION PATCHES PRESENT, NOT AVERAGE PADDOCK CONDITION.

WHAT IS
INFILTRATION?

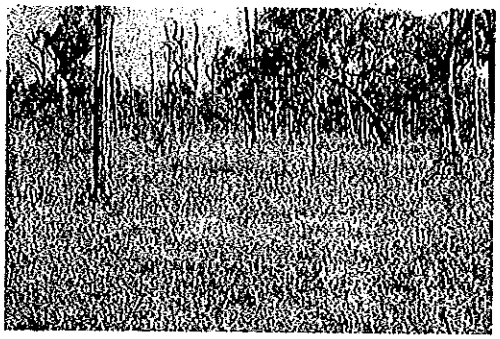
Infiltration is the process by which water enters the soil. The higher the infiltration the faster the water moves into the soil. This means less runoff and less erosion. Different soil types have different infiltration rates, but generally the higher the ground cover, the higher the infiltration rate. 3P tussock grasses increase soil infiltration by slowing down water as it flows across the landscape. They also help to protect the soil against raindrop impact and improve the condition of the soil. If your soil has low infiltration, you need to maintain a higher cover of grasses to restrict runoff.



Recovery of 'C' condition land
VIRGINIA PARK STATION 2006

Recovering paddocks remain highly vulnerable to heavy stocking and short duration, intense rainfall events, due to the patchy distribution of plant bulk, ground cover and 3P grasses. Recovering landscapes take much longer to increase the size and number of 3P pasture plants, pasture root mass, organic matter and nutrient reserves than land in fair (B) and good (A) condition.

PREMATURE RETURN TO HIGHER STOCKING RATES COULD EASILY RE-EXPOSE RECOVERING PATCHES TO HIGH GRAZING PRESSURE AND RE-OPEN LEAKINESS PATHWAYS.



"Nature is strong and recovery will occur providing cattle are removed."

Somerset Futures, First Round Consultations

Submission of Valmai Burnett, [redacted] *Avoca Vale Qld 4306,*
Dated 24/11/2010

Enclosure: ***U.N. Review of Paper No. 8***

LAND AND WATER DISCUSSION PAPER

Review of evidence on drylands pastoral systems and climate change

Implications and opportunities for mitigation and adaptation

The review highlights the significant untapped potential for climate change mitigation and adaptation associated with improved management of grazing lands in pastoral systems and rangelands. Grasslands and rangelands deserve greater attention, not only for their large extent, widespread degradation and limited resilience to drought and desertification, but also for their potential capacity to sequester and store carbon in soils. Degradation of the land base negatively affects the accumulation of carbon in the soils. Thus, reversing land degradation in extensive dryland areas through improved pasture and rangeland management would contribute to restoring the soil carbon sink while also improving livelihoods of pastoral and agropastoral peoples. The review also highlights the multiple benefits of enhancing ecosystem services and processes for improving livelihoods while contributing to adaptation to climate change impacts. Realizing this potential will require increased awareness and coordinated global efforts alongside interventions that address associated socio-political and economic barriers, such as land tenure constraints and inadequate services for, and political marginalization of, pastoral and agropastoral communities. The opportunity to support climate change mitigation in drylands that will simultaneously contribute to climate change adaptation and reduced vulnerability of pastoral societies should be a key area of focus in post-Kyoto mechanisms.

ISBN 978-92-5-106413-9 ISSN 1729-0554

I1135E/1/10.09/2100

THE FOOD & AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS.
Rome, 2009.

Suggest downloading of this very interesting Paper No.8 from
Web site: http://www.fao.org
(via Google.)

Contents include:-

Refer CSIRO "Ecograze" Project results in SPELL GRAZING on 3P Native Pastures during the prevailing wet seasons.
and
"Effect of Trees on Grazing Herbage Biomass" (optimum spacing of trees c.f. grass) Walker J. et al, 1986 Division of Land & Water, C.S.I.R.O.

Somerset Futures, First Round Consultations

Submission of Valmai Burnett, [redacted] **Avoca Vale Qld 4306,**
Dated 24/11/2010

Enclosure: Background of future of agriculture & regrowth

DRAWBACKS OF REGROWTH.

(a) Too dense a canopy to allow perennial grasses to grow and sequest carbon and provide livestock feed. (*)

(b) Too dense to allow mill logs to develop with so much competition from undersirable stems. (*)

(c) Dense canopy provides perches for birds who drop seeds(Particularly Lantana) to form an understorey of less desirable species such as weeds.

(d) Trees growing draw too much moisture from the acquifers feeding streams and dams.

(e) Dense canopy carries hot fire storms.

(f) Difficult to muster and control feral animals.

WHY SUCH REGROWTH OCCURS. (Refer "Background" Sheet.

Aboriginals used fire more circumspectly than white settlers. burning small mosaic areas in late autumn or winter when cold night air put fires out, and burning after rainfall when fire did not penetrate to bare soil, leaving mulch on the ground.

(Refer Yellow Page "Fire & Biodiversity" attached).

Late spring/summer fires lit accidentally or deliberately and are driven by hot winds, they can leap fire breaks.
* Lightning can start a fire, but usually preceeds the rain which puts most starting fires out before they get away.

BENEFITS OF THINNING.

PASTORAL. If managed in association with Wet Weather Spelling (see CSIRO Brochure attached) the deep-rooting perennial grasses improve carbon sequestration, reduce salinity, minimise erosion, increase soil fertility and moisture-holding capacity whilst increasing carrying capacity - so important with increasing world population to feed.

However fire-break preparation is essential and young land-holders are often absent earning off-farm income necessary to meet high costs and low cattle prices. (If Queensland Cattle Index which applied in 1973 (when COST OF LIVING INDEX was replaced by C.P.I.) were adjusted according to C.P.I. to-day it would be within the range 250-260 instead of the present 160.)

AGRICULTURAL. Regrowth belts could surround cultivation areas (as in Chile) or be retained in strips on cultivated areas (as in West Australia) to provide wind-breaks and wildlife habitats, and carbon sequestration.

(*) "EFFECT OF TREES ON GRAZING HERBAGE BIOMASS". (Q'LAND)
Walker J, Robertson J.A. Pentridge L.K.
1986 - C.S.I.R.O. Division of Land & Water
and Sharpe P.J.H. Texas N & M. University, USA.

Somerset Futures, First Round Consultations

Submission of Valmai Burnett, [redacted] Avoca Vale Qld 4306,
Dated 24/11/2010

Enclosure: Background of future of agriculture & regrowth

(A) BACKGROUND.

The application of European farming methods to this old and fragile continent has degraded our soils, the land and the rivers. This continent with its variable rainfall and shallow ancient soils underlaid with salt was originally quite productive due to soil biota and humus (carbon) content built under Aboriginal custodians over millennia.

Captain Cook, early explorers and settlers described it "like a gentleman's park with widely spaced trees and oat-like grasses in the understorey." Early explorers also described travelling through country where the grass reached the horses' bellies, and through you could gallop a horse or drive a horse and dray. (Refer 1895 painting "A")

Since the 1850s grazing "management" associated with tree-clearing and altered fire regimes has characterised significant changes in the grassy woodlands of south-eastern Queensland. (Refer A.M.P. Report on Colinton Estate - 1900 - Queensland Oxley Memorial Library).

In an address to the Agri-Food Conference in Melbourne last year "Tackling the Global Food Crisis", The Adjunct Professor of Science Communication at the University of Technology, Sydney, Julian Cribb, outlined some alarming facts about global food supply and the challenges facing agriculture now and in the future. According to Professor Cribb each year for the past seven years, the world has consumed more grain than its farmers have been able to grow, leaving grain supplies at the lowest level for 50 years.

Professor Cribb"sees the current food crisis as a WARNING of what could lie ahead as civilisation runs low on water, arable land, nutrients and technology, as marine catches collapse, biofuels expand on arable land whilst oil supplies and oil-based fertilizers run out, energy costs soar and droughts intensify due to climate change. At the same time as he expects world population increasing will cause global demand for food to double. "

Australian Farm Journal, 1/2/2009.

These warnings are repeated world-wide in articles from The Weekend Australian, Queensland Country Life Newspaper, A.B.C. "Bush Telegraph" which quote "Collapse" (Prof.Jared Diamond, U.S.A.) "The Weather Makers" (Prof.Tim Flannery) Patrick Coleman (U.K. Soils Association) and "Why China's Base is Fragile (Matthew Cawood, Environmental & Science Writer, Q.C.Life) and Professors from the Tokyo Institute of Technology. (W/E.Australian P.13, 14-15/3/09)

In view of the looming global food crisis warned world-wide, strategic directions must focus on NEEDS not WANTS - i.e. providing healthy food within minimum "food miles" of ever-increasing population centres.

Such strategic direction must involve retention of scarce arable lands in high rainfall belts and frost-free areas. It must also address restoration of the degraded productive rangelands and arable lands in Australia.

It must also involve production of Bio-Fuels from sources other than from food grains.

(Refer Submission NRM - "B") attached.