

SUBMISSION TO THE NORTH AUSTRALIA LAND AND WATER TASK FORCE

Gulf Savannah Development, representing the Shires of Carpentaria, Burke, Doomadgee, Mornington and Etheridge and their constituent stakeholders, promotes and pursues economic and social development outcomes for the Gulf Savannah region.

Water Resources

The Gulf of Carpentaria has 24.5% of the nation's mean annual water run off¹ and in a context of increasingly scarce water resources, this resource is too valuable to ignore. Hydrological assessments show that an average annual volume of about 23 million ML of water is discharged from the rivers of the Gulf area – yet less than 1% of that volume is allocated for town, mining, industrial and irrigated agricultural use. Examples of existing entitlements (plus proposed unallocated water entitlements) for three of the Gulf's rivers are shown in the following table².

<i>Catchment</i>	<i>Existing entitlements plus proposed unallocated water as a % of average annual discharge into the Gulf</i>
Norman River	0.31
Gilbert River	0.81
Staaten River	0.01

Approach

We endorse the principle that any water use needs to balance the needs of all Gulf stakeholders including the fishing industry (which relies on annual flows for fish/ prawns), tourism industry (emerging opportunities in birdwatching etc based on wetlands), and indigenous stakeholders who have strong cultural heritage values based on river flows.

It is also clear that any water use planning in the Gulf needs to be based on science and not make the mistakes that occurred within the Murray Darling Basin. However, the 'science' needs to include local knowledge (indigenous and non-indigenous) and be truthed against this local knowledge.

Gulf Economic Development

The following are the key components of an economic development strategy for the region:³

- adding value to the current extensive grazing activities
- developing horticultural activity in areas which can sustain such activity
- developing the regions tourism brand and diversifying the market through targeted product development and marketing activities
- facilitating further mining operations in the region, particularly through provision of appropriate infrastructure
- stimulating the flow of investment migrants to the region to take up the evident opportunities available in small business and service industries
- key infrastructure needs include better water infrastructure, improved energy supply, better telecommunications and roads, and development of the export potential of Port Karumba.

¹ Table 5 Environment Australia *Inland Waters Theme Report: State of the Environment 2001*

² P.45 Dept Natural Resource and Water *Gulf Draft Water Resource Plan 2006*

³ Gulf Savannah Development *Investment Profile 2006*

Better use of the Gulf's water is the key to the first two dot points above and is also considered a key to unlocking the economic development potential of the Gulf, together with more investment in enabling infrastructure (transport and energy). With better water use there are great prospects for growth in size and value of agricultural/ horticultural industries in Gulf. By contrast with non-consumptive uses of water, there are not strong prospects for growth in the fishing industry (although increased value is likely). Tourism has growth opportunities, and some of the product development opportunities are associated with wildlife/ nature tours, requiring access to healthy wetlands and other habitats. However, tourism is not the 'golden egg' and will never be the mainstay of our regional economy. Primary industries have always been, are likely to remain, the mainstay of the Gulf economy.

Agriculture/ Horticulture

It is recognised that some soils in the Gulf region maybe a limitation to large-scale irrigation development⁴. Nevertheless it is important to recognise that most catchments have pockets of soils that have been proven suitable to irrigation, and that the economic value of irrigated agriculture is far greater than non-irrigated agriculture.⁵

Irrigation is already occurring in parts of the Gulf, across Etheridge, Carpentaria and Burke Shires (fruits, peanuts, hay and fodder crops, one feedlot). The reasons why more irrigation is not occurring relates largely to inappropriate water resource plans (see 'Governance' section below), and energy issues. The current situation where there is no mains power or no access to 3-phase power means irrigators are reliant on costly diesel generators to pump water.

The Gilbert River is one area whose potential has been confirmed by various studies: "*Soils and crop suitability investigations have confirmed that the area between Prestwood and Chadshunt stations on the Gilbert River could potentially sustain irrigated agriculture*"⁶. The same report concluded that the potential Green Hills Dam on the Gilbert was "*considered worthy of further investigation*" with the capacity for a "*substantial irrigation development*"⁷.

More details on the Gilbert River proposal, which is small and modest, are included in the following section and in the *Gilbert River Irrigation Area Investment Report* (April 2009) which accompanies this submission.

The Gulf Regional Water Planning Advisory Committee has also identified water and soil availability in proximity to the Gregory, Einasleigh, Copperfield and Mitchell Rivers. It is understood that similar potential exists on the Flinders and Leichhardt Rivers. The Committee further indicated that the "*potential benefits of irrigation projects to the local populace could, with careful planning, be at least equivalent to other existing industries such as cattle and mining*"⁸.

It is also salient to note that:

- "*trialling of crops over many years... has built up farming and agricultural engineering expertise among a core group of farmers*"⁹ in the region
- "*the pastoral industry .. has improved cash flows [which] may underpin investment in irrigation projects in future years*"⁹. Investment in pastoral properties in the region from southern farmers is also an evident trend, underpinned by water security issues
- the gross value of crops in Etheridge Shire grew from \$30,000 in 1991/92 to \$1,543,000 in 2000/01 reflecting development of rotational cropping along the Gilbert River⁹.

The capacity to develop fodder crops in the region is also helping the beef cattle industry to lift its productive potential¹⁰ through supplemental feeding and feedlots within the Gulf. It is noted elsewhere that grazing in the Gulf has relatively little water quality impact.¹¹

⁴ p. 5 Dept Natural Resources, Mines and Energy *Gulf and Mitchell Agricultural Land and Water Resource Assessment Report* 2004

⁵ irrigated agriculture occurs in only 0.5% of total agricultural land yet accounts for 28% of total agricultural production: ABS 2004

⁶ p.58 Dept Natural Resources, Mines and Energy 2004, op. cit.

⁷ pp 58-59 Dept Natural Resources, Mines and Energy 2004, op. cit.

⁸ p.91 Gulf RPAC *Gulf Regional Development Plan* 2000

⁹ pp.vi, vii, 18 Department of Natural Resources, Mines and Water *Gulf: Economic and Social Assessment Report* 2006

Already one investor with an interest in the Gilbert River proposal is preparing a feasibility study to:

- use Gilbert River water to grow crops to fatten cattle in the region
- start processing cattle through an abattoir to be established in the region
- export through the Port of Karumba or Normanton airport.

This would provide important employment and business development opportunities in the region including for the indigenous population who in general have strong links to the grazing industry.

This localization of the supply chain provides broad regional development benefits and reduces 'carbon miles' – currently Gulf cattle tend to be transported out of the region for fattening, then transported again for processing at the Townsville abattoir (which then freights product down to Brisbane for export) or to feedlots in the south.

Gilbert River Irrigation Area

The Gilbert River Irrigation Area is an example of the kind of irrigation development that is considered appropriate for the Gulf. The Gilbert River Irrigation Area is highlighted in this submission as the project for which planning is most advanced.

However it provides a model which is strategic and potentially applicable to other parts of the Gulf.

(Extract from *Gilbert River Irrigation Area Investment Report*)

- The Gilbert River in the Gulf Savannah region of northern Queensland has long been identified as having the potential to develop an irrigated agriculture industry. Serious investigations in this regard were undertaken by the Queensland Government from 1998 to 2000, resulting in a proposal to establish 'Green Hills' dam. Further investigations have recently been undertaken into the irrigation potential of the region, driven by recent private sector expressions of interest, and its perceived significance as a nation-building and regional development initiative
- A recent *Scoping Brief on the Proposed Gilbert River Agricultural Precinct* examined a production scenario which assumed a dam of 300,000 ML capacity and 100,000 ML annual yield, and principal crops of rice and peanuts. These crops were selected partly based on investment interest. Under this scenario, 100,000 ML of water would be sufficient to irrigate 13,800 ha of land, with a gross annual revenue of \$68.8 million and a gross margin per hectare of \$830.61. This compares favourably with gross margin projections prepared for the recent expansion of the Ord irrigation area in Western Australia
- Under this scenario, opportunities to also value add to the region's beef cattle industry have been identified. In addition an estimated \$19.2 million of total variable input costs would be expended within the region, to support local business
- The *Scoping Brief* identified other crops which could be grown in the area but for which further market and production analysis would be required. The option of establishing an organic precinct is also identified, given the significant comparative advantages for organic production that are offered by the region
- Soil assessments undertaken at a 1:100 000 scale have identified 20,984 ha of land that is highly suitable for irrigated agriculture and a further 7,580 hectares that is moderately suitable. Given that the soil assessments only covered 108,000 ha, further soil assessments may identify additional land suitable for irrigated agriculture, allowing for an expansion of the irrigation area
- Numerous indicators point to ongoing socio-economic disadvantage in Gulf Savannah Shires, including for the Gulf's majority indigenous population. Social impact assessments undertaken in 2000 identified broad local community support for the irrigation area, although some concerns exist over compulsory acquisition of land

¹⁰ Northern beef industry operating well below its productive potential identified in: Kernot *Producer Experience in the Gulf Region* 1998

¹¹ p.75 *Southern Gulf Catchments Natural Resources Management Plan* 2005

- An annual water take-off of around 200,000 ML for Green Hills dam would represent about 4.5% of the Gilbert River's annual discharge. A statement of environmental values prepared for this report indicates potential concerns regarding downstream impacts and puts a case for further research into the region's environmental values
- A dam of around 300,000 ML capacity is estimated to cost around \$200 million. A range of supporting investments have also been identified to enhance the profitability of the area, to facilitate private sector investment and to deliver broad regional development outcomes
- A range of compelling comparative advantages exist for establishment of the Gilbert River irrigation area and a strong alignment with national policy objectives has been identified.

COMPETITIVE ADVANTAGES OF GILBERT RIVER

- The Gilbert River catchment has regular and reliable annual rainfall
- Gulf region projected to have steady/ increased rainfall through climate change (unlike southern Australia)
- Water allocations from the Gilbert River are currently very low and under-utilised
- Growing conditions are highly suitable for a diverse range of crops
- Dry climate means reduced pest and disease loads and thus reduced business inputs
- Irrigation area highly suitable for organic production and establishment of an organic precinct
- The region's early cropping season open up market windows and the opportunity for premium prices
- Additional suitable soils already identified and thus scope for expansion into the future
- Competitive land prices
- Opportunities to integrate cropping activities with, and add value to, the established beef cattle grazing industry
- Proximate to Asian export markets and counter seasonality with agricultural production in Asia
- Equidistant to the Ports of Townsville, Cairns and Karumba
- Gulf Development Road runs through the proposed irrigation area – Hahn Highway also provides access to southern markets.
- Gilbert River runs into the Gulf of Carpentaria, thus would not add to environmental pressures on Great Barrier Reef
- Federal government policy supports agricultural development in Northern Australia
- No threat of encroachment from urban sprawl
- Gilbert River isolated from disease/ pest incursions along coast.

Small Business/ Service Industries/ Tourism

It is expected that the Gulf population will further increase in coming years¹². Combined with growth in economic activity and tourist numbers, further demand will be placed on town water resources. Impediments to migration (in the areas of housing, education and proactive investment marketing) are currently being addressed by Gulf Savannah Development and its partners.

There are many industries which are water reliant, including in the manufacturing sector, and we anticipate that some of these will move to regions such as the Gulf, once infrastructure improvements are made and water supply issues in other parts of Australia are further exacerbated by climate change and other factors.

Aquaculture is another industry with potential in the Gulf. Although there is currently no commercial aquaculture in the region, a 2004 report noted that “the region has the potential for sustainable aquaculture development”¹³. The report noted the suitability of a host of species (including prawns, red-claw, barramundi, sleepy cod, sea cucumber and crocodile), with high freight costs and limited infrastructure being the main mitigating factors. The report suggested that redclaw farms could provide product to large mining companies throughout the region, and that “the area lends itself to commercial farming of [crocodiles]”. Due to the fact that around 80 per cent of income for crocodile farmers is sourced from the sale of hides and only 20 per cent from meat sales freight costs of product are not as much an issue as with other species. There is also the potential for extra income from tourism.

Sustainable forestry is another option which could draw on the Gulf’s water resources. There is no significant commercial forestry in the region, although the Forestry Science Group of the Department of Primary Industries conducted dryland farm forestry species trials on experimental plantings in both Shires during 2003/04. Forestry presents several niche opportunities, some of which are being taken up in the Northern Territory and Cape York. Selected species include Eucalyptus, Acacia and African Mahogany (*Khaya senegalensis*). Commercial production of native sandalwood (*Santalum lanceolatum*) is another option as the highly valued timber occurs naturally in areas of the Gulf Savannah¹⁴. Establishment of an Indian sandalwood plantation in Weipa, on western Cape York, is being discussed based on high international demand¹⁵.

Mining

The extensive exploration activity in the east of the region (Etheridge Shire) and the west (Burke Shire) is also beginning to see establishment of new mines. The key impediments to unlocking these mineral resources are in the area of infrastructure. As mines develop there will be further demand on access to water resources.

Conservation Outcomes

Water resource development can also facilitate conservation in the region: State tree clearing legislation means that any developments like Gilbert River would require an offset for trees cleared – this could for example be in the form of a conservation area in the headwaters of the Gilbert River to reduce sedimentation and enhance water quality.

Governance

In terms of governance, we note (as identified by an independent evaluation) that “*the (States) water planning framework had been developed to correct the legacy of over-allocated systems and state investment in water resources. In the Gulf, where there has been limited cultivation of water resources the application of the framework was not as appropriate.... . There is a demonstrable reluctance on behalf of*

¹² p.5 Dept Natural Resources, Mines and Energy 2004, op. cit.

¹³ p.227 Minniecon and Burke, Scoping Study Report into Opportunities for Indigenous Aquaculture in North Queensland, 2004

¹⁴ *Agroforestry R&D Priorities for Northern Australia*, RIRDC, Pub. No. 01/142, Nov 2001

¹⁵ “Sandalwood a growth industry for Weipa”, 30 July 2008. www.getfarming.com.au

the State Government to articulate a water resource plan as a catalyst for the future development of the region¹⁶.”

This reflects a general concern that Gulf water resources are not being used to develop the Gulf region but as political pawn to gain green votes.

We also encourage consideration of options that vest ownership and management rights to water with local communities, so that they benefit from water use. An example is the large pit created by Century mine, which will eventually become a lake. Vesting management of this resource with the local Council or a community consortium would empower local communities and led to a sustainable future based on sustainable resource management.

¹⁶ J.MacKenzie, TraCK (CSIRO/ Griffith Uni), Collaborative Water Planning: Retrospective Case Studies: Water Planning in the Gulf of Carpentaria, 2008