

GULF RIVERS IRRIGATION AREA: FOUNDATION OF A NORTHERN FOODBOWL

INTRODUCTION

The development of the Gilbert and Flinders Rivers would be a nationally significant project. It would allow for the expansion of irrigated agriculture and form the basis for a wider plan to develop Northern Australia into a foodbowl.

Further development of the Gilbert and Flinders would provide improved economic and social opportunities for residents of a region classified as Very Remote and Disadvantaged. It would also increase Australia's overall exports, help diversify our export base away from particular commodities and improve Australia's trade balance.

The idea of developing the North as a foodbowl has existed for a long time but has been held hostage by anti-development green agendas and crippling inaction.

Working with the states, a federal Coalition government could revolutionise agriculture in the North. With targeted funding for infrastructure, support for streamlined environmental regulation and appropriate water allocation, input from both levels of government would ensure a thriving agricultural area.

The new Queensland state government has already taken steps to allocate more water for irrigation along the Gilbert and Flinders rivers.

One media report said that the Newman government's 'can do' spirit had surfaced in the Gulf after Queensland Minister for Natural Resources, Andrew Cripps, announced the release of 80,000ML of unallocated water from the Flinders River and 15,000ML from the Gilbert River.¹ This same spirit must be matched at the Commonwealth level to make the most of the Gulf region's potential as a foodbowl.

The following section outlines some policy options for a Federal Coalition government seeking to expand agricultural production in the Gulf region. It proposes two sets of options: the first is a wide-ranging, integrated scheme to boost economic growth and agricultural production; the second is a smaller, targeted set of investments.

¹ Reg Burton, 'Green light for Flinders irrigation,' *North West Star*, 26 July 2012.

THE NEED

Providing food for Australia and the Asia-Pacific region should be a national priority. But four of Australia's six major horticultural production regions are under threat from over allocation of water.

Greater development of irrigated agriculture in Northern Australia will allow the North to become a food bowl for Asia, easing pressures on over allocated catchment areas.

Australia provides enough food for roughly 60 million people, but with moderate investment in water catchment and agricultural, transport and logistics technology, this figure could easily double.

CURRENT SITUATION IN THE GULF

The Gulf region of North West Queensland is ideally placed to sustain much greater irrigated agriculture.

The Gulf of Carpentaria receives 25.6 per cent of the nation's water run-off, yet less than one per cent of the Gulf's water is allocated for town, mining, industrial and irrigated agricultural use.² According to Gulf Savannah Development, hydrological assessments show that an average annual volume of about 23 million megalitres of water is discharged from the rivers of the Gulf.³

Compared with the Murray Darling Basin, where the volume of water is 23,734 gigalitres per year, the Gulf region's catchments receive 95,615 gigalitres per year.

It is clear that the Gulf's water is under used. We should not continue to ignore this major opportunity.

To initiate a Northern foodbowl, we must develop irrigation along the rivers of the region, including the Gilbert and Flinders rivers.

Current economic activity in the region includes large cattle stations, a substantial fishing industry, some mining activity and a growing tourism industry.

Water is essential for all these industries and more water will allow them to develop and grow further.

There is some existing irrigation along the Gilbert River including for mango, citrus and seed crops. A number of investors have also expressed interest in growing peanuts, rice, fodder crops, bananas and establishing an abattoir.

² Australian Government, National Water Commission, *Australian Water Resources 2005*, available at: http://www.water.gov.au/WaterAvailability/Whatisourtotalwaterresource/Runoff/index.aspx?Menu=Level13_1_5 accessed 17/08/12

³ Gulf Savannah Development, Submission to the North Australia Land and Water Taskforce, 1, available at <http://www.nalwt.gov.au/files/2009/No09Macalister.pdf>.> accessed 20/08/12

Along the Flinders, cattle is the largest form of agriculture while cotton and other crops are also grown.

CURRENT LIMITATIONS

Inappropriate water resource plans and unsuitable energy supply are the main reasons water is underutilized in the region.

There is no mains power and no access to three-phase power in the region, which means irrigators rely on costly diesel generators to pump water.

Water resource plans have not been tailored to suit the region. A CSIRO and Griffith University review found the Queensland water planning framework was developed to correct the trend to over-allocate water in the systems in the south east of the state.⁴ The report concluded that the planning scheme was “less suited to Northern Australia.”⁵

According to MacKenzie, in the Gulf region, the planning process should be “less about correcting the legacy of past water development, and more about providing a platform for the aspirations of the region for future development within ecological limits.”⁶

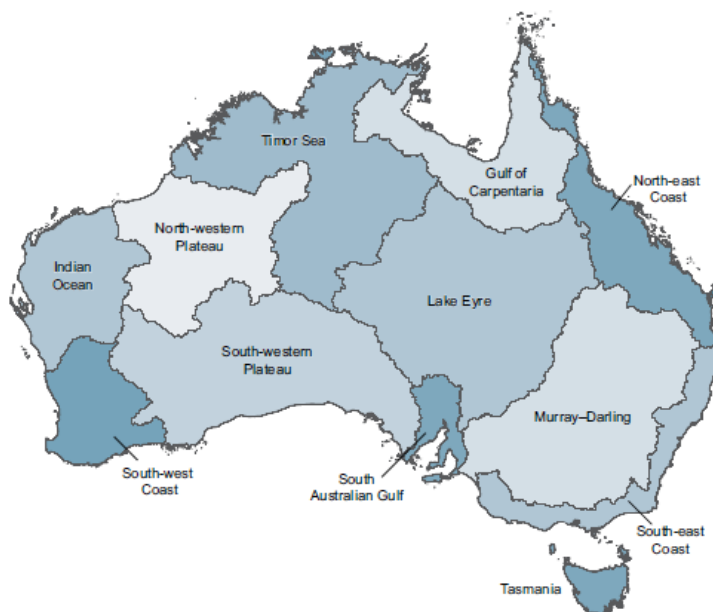


Figure 1. Australia's drainage divisions

Source: Australian Government, Department of Sustainability, Environment, Water, Population and Communities, *Australia: State of the Environment 2011*.

⁴ John MacKenzie, 'Collaborative Water Planning: Retrospective Case Studies - Water Planning in the Gulf of Carpentaria,' *Tropical Rivers and Coastal Knowledge*, CSIRO and Griffith University, July 2008, 4.

⁵ *Ibid.*, 3.

⁶ John MacKenzie, 'Collaborative Water Planning: Retrospective Case Studies - Water Planning in the Gulf of Carpentaria,' 4.

THE OPPORTUNITY

By 2020, more than half the world's middle class will be in Asia and Asian consumers will account for over 40 per cent of global middle class consumption. Australia's proximity to Asian markets is unrivalled and the exploding Asia Pacific middle class is already creating huge new mass markets. It will also create very large niche markets suited to the higher cost, quality goods and services available in Australia.

This growing middle class is an ever expanding market. In 2009, the Asia Pacific region accounted for 28 per cent of the global middle class or 525 million people.

By 2030, that figure is expected to be an extraordinary 66 per cent or 3.2 billion people.

Asia is the new growth market and this growth will occur in the immediate future, practically overnight. If Australia is to take advantage of this historic opportunity, then we should start now by transforming the North of Australia.

THE COMPETITIVE ADVANTAGES OF THE GULF

This particularly applies to the Gulf region, which has distinct competitive advantages as a potential agricultural region geared towards exports.

Competitive advantages of cropping in the region include early ripening, which offers producers premium prices, a relatively dry climate resulting in low pest levels, and proximity to Asian markets via various ports, including Karumba and Townsville.

Supply of water is reliable (even if it is currently allowed to flow out to sea), and land is affordable compared with more developed irrigation areas of Queensland such as the Burdekin and Emerald regions.

Soil and crop suitability investigations have confirmed that the area between Prestwood and Chadshunt stations on the Gilbert River could sustain irrigated agriculture.⁷

In 2000, the Gulf Regional Water Planning Advisory Committee undertook an assessment of land in the region to determine its suitability for horticultural purposes. The study identified water availability and soil suitability in proximity to the Gilbert, Gregory, Einasleigh, Copperfield and Mitchell Rivers.⁸ The report identified significant opportunities to develop irrigation projects west of Georgetown on the Gilbert River and at the O'Connell Creek Storage at Richmond.

In the Flinders region, 15,000 hectares of soil have been identified as some of the best available in Queensland for cropping.

⁷ Department of National Resources, Mines and Energy, *Gulf and Mitchell Agricultural Land and Water and Resource Assessment Report*, 2004, 58.

⁸ Gulf Regional Water Planning Advisory Committee, *Gulf Regional Development Plan*, November 2000, 91, available at <http://www.dsdp.qld.gov.au/resources/plan/gulf-region/grdp_dec_2000.pdf> accessed 20/08/12

Water allocations from the Flinders River are currently underutilised. 25,000 megalitres of water entitlements are currently allocated and a further 80,000 megalitres are available for future development. This ultraconservative approach only allocates 2.1% of the annual 3,800,000 megalitres of river flow.⁹

The committee's assessment indicates that the potential economic 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.¹⁰

A GULF RIVERS IRRIGATION SCHEME

GILBERT RIVER

In 1998, the State government's Water Infrastructure Task Force recommended formal investigations of water storage options in the Gulf.

In these initial investigations, thirteen possible water storage options were identified and assessed by the Task Force. This process included economic, social, environmental, technical and cultural assessments. In 1999, two of the thirteen options were identified for further investigation – Green Hills in Etheridge Shire and O'Connell Creek in Richmond Shire.

Economic Profile of proposed Gilbert River Agricultural Precinct

Total Area under major production: 13,800 ha

Total gross revenue – farm gate: \$68,821, 671

Total variable input costs: \$53,258, 682

Gross margin: \$11,462,390

Gross margin, per hectare: \$830.61

Total irrigation water used: 95,550 ML

Average irrigation used per hectare: 6.74 ML/ha

Selected production transported outside the region: 104,613 tonnes
(including mangoes, peanuts, rice, sorghum, soybeans, melons, pumpkins and hay)

Source: Gulf Savannah Development, *Water Resource Development in the Gulf Savannah*, LGAQ Economic Development Conference, Cairns, February 2010

⁹ Mount Isa to Townsville Economic Development Zone, *Flinders River Ag Precinct Investment Profile*, 2010, 2.

¹⁰ Gulf Regional Water Planning Advisory Committee, *Gulf Regional Development Plan*, November 2000, 91, available at <http://www.dsdp.qld.gov.au/resources/plan/gulf-region/grdp_dec_2000.pdf> accessed 20/08/12

The Green Hills Proposal would have an annual water take-off of around 200,000 ML or about 4.5 per cent of the Gilbert River's discharge, which is well within the Newman government's water take-off policy.

FLINDERS RIVER

On the upper Flinders River, there are 200 to 300 ha of established commercial irrigated fodder, cotton and small grains crops. These ventures have been developed over the past two decades and provide evidence for further development.

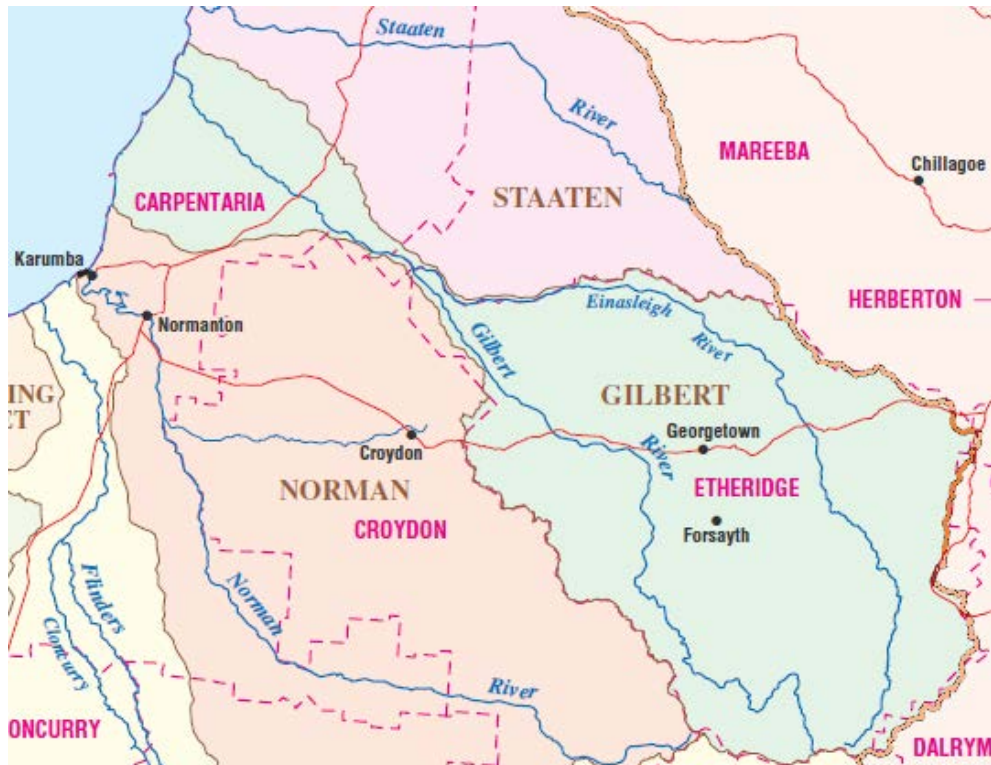


Figure 2. Rivers and towns of the Gulf region

Source: Gulf Savannah Development, *Gilbert River Investment Report 2009*, available at <http://www.gulfsavannah.com.au/images/stories/documents/Gilbert%20River%20Investment%20Area%20Revised.pdf>, accessed 24/08/12.

The Flinders River has some of the best farming soils available for development in Queensland. The river is one of the longest in Queensland at 1004 kms and has a catchment covering 109,000 km². The river starts in the Burra Ranges northeast of Hughenden and winds its way west past Hughenden, Richmond and Julia Creek until it heads northwest to the Gulf of Carpentaria.

Before July 2012, there were 25,000 megalitres of water entitlements allocated to irrigation development in the Flinders River catchment through off-stream storages and direct irrigation from rivers and streams.

There is an opportunity to develop more economically competitive irrigated pasture and cropping along the Flinders.

For this, there must be greater provision of new and upgrading of existing infrastructure and other supporting investments. The Etheridge Shire Council has identified a range of measures which would support the development of irrigated agriculture in the region.

Item	Rationale	Indicative Cost (where available)
Upgrade of Gilbert River Power Supply	Provision of 3-phase power to irrigators to improve the economic efficiency of irrigated agriculture and reduce greenhouse emissions	\$5 million
Upgrade of Hann Highway	To improve access into southern markets for Gilbert River and other North Queensland products	\$50 million
Establishment of Gulf Agricultural College	A 'virtual' college to develop appropriate skills among the local community in terms of irrigated agriculture and grazing and promote retention of youth in the region	\$2 million
Upgrade of Health Services, Education Services	To support the increase in population likely to result from irrigated agriculture	n/a
Improved Housing Supply	To support the increase in population likely to result from irrigated agriculture	n/a
Indigenous Training and Employment Initiatives	To facilitate indigenous participation in the agricultural economy	n/a
Upgrade of Port Karumba/Normanton airport	To facilitate export of product from the Gulf and improve the international competitiveness of Gulf product	n/a
Mobile Phone coverage at Gilbert River	To improve operational efficiency of Gilbert River producers	\$1.5 million

Source: Etheridge Shire Council, cited in Gulf Savannah Development, *Gilbert River Investment Report 2009*, available at <http://www.gulfsavannah.com.au/images/stories/documents/Gilbert%20River%20Investment%20Area%20re%20sized.pdf> accessed 24/08/12

WHAT NEEDS TO HAPPEN

Both the Gilbert and the Flinders River projects are well planned and the structures are already in place to provide for a vibrant agricultural precinct in both regions.

On 24 July 2012, in a joint statement, the Queensland Minister for Agriculture, Fisheries and Forestry, the Hon. John McVeigh and the Minister for Natural Resources and Mines, the Hon. Andrew Cripps, announced the release of water from the Gilbert (15,000 ML) and Flinders (80,000 ML) Rivers.¹¹

This signified an important step in the development of irrigated agriculture in the Gulf region. As the editorial in Mt Isa's *North West Star* stated, "State and Federal governments should look to the Northern Outback Irrigators Forum in Hughenden on July 23-24. It stands as one of the most important meetings in this region's agricultural history."¹²

But more can be done. Local rural landowners claim the current water allocation is too small to warrant private investment in on-farm infrastructure: "We'll accept 32,000ML (of water rights) this time around if that's all we can get, but it's not going to build a viable industry... 80,000ML is not enough to justify large-scale infrastructure investment on-farm, attract the big players, build a new (cropping) industry or sustain a community."¹³

Building on the progress which has already been made in both the Gilbert and the Flinders, a federal Coalition government should work with the Queensland government to ensure a thriving agricultural region is allowed to develop.

Some specific funding, such as for the Green Hills Dam, should be committed. The dam on the Gilbert River is estimated to cost \$200 million.¹⁴ This figure is based on a capacity of 300,000 megalitres. This investment would sustain nearly 14,000 ha of cropping land.

Public and private sector investment is crucial to the expansion of irrigation in the region. For this, the right structures must be in place and deterrents to investment removed, such as the excessive green tape which exists under the *Vegetation Management Act*.

At a federal level, investment in infrastructure is required as well as support for streamlining regulation. The Queensland government must also reduce barriers to investment that currently exist, release more water and contribute funding to infrastructure projects.

Implementing these initiatives will provide the basis for well structured development of irrigation in the region. In many cases, the cost involved would be minimal.

¹¹ Joint Ministerial Statement, 'Water releases deliver boost for Gulf Agriculture,' 24 July 2012, available at <http://www.mitez.com.au/images/docs/noif_ac_and_jm_media_release.pdf> accessed 27 August 2012

¹² Editorial, *North West Star*, 24 July 2012.

¹³ Landowners call for answers on Gulf food bowl, *The Australian*, 6 October 2012.

¹⁴ Gulf Savannah Development, *Gilbert River Investment Report 2009*, 1, available at <<http://www.gulfsavannah.com.au/images/stories/documents/Gilbert%20River%20Investment%20Area%20resized.pdf>> accessed 27/08/12

RECOMMENDATIONS

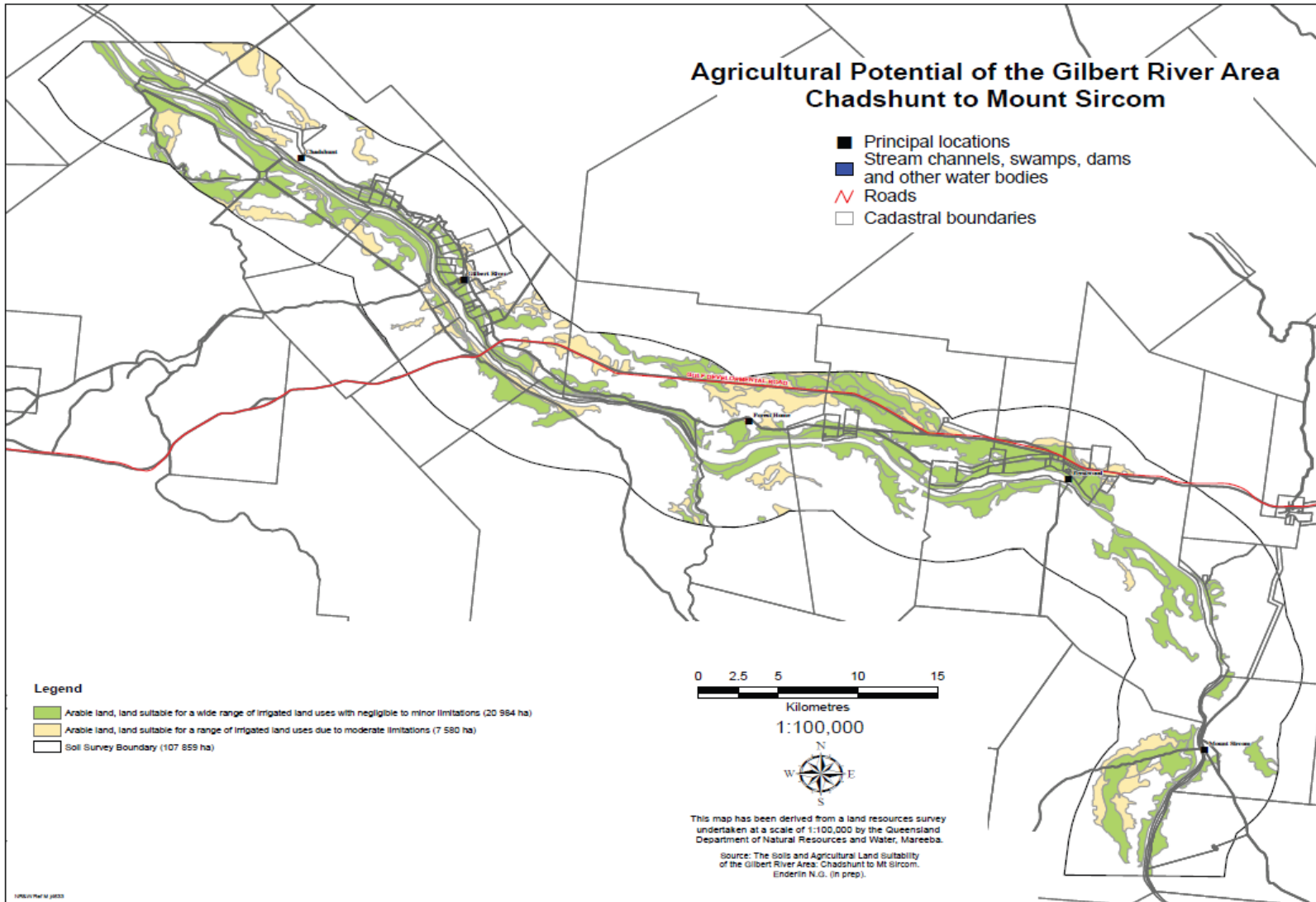
The following are options for Federal involvement in the development of agricultural capacity in the Gulf region. The first is a bolder, more expansive and integrated proposal. The second is a more conservative, incremental and more targeted set of options.

OPTION 1

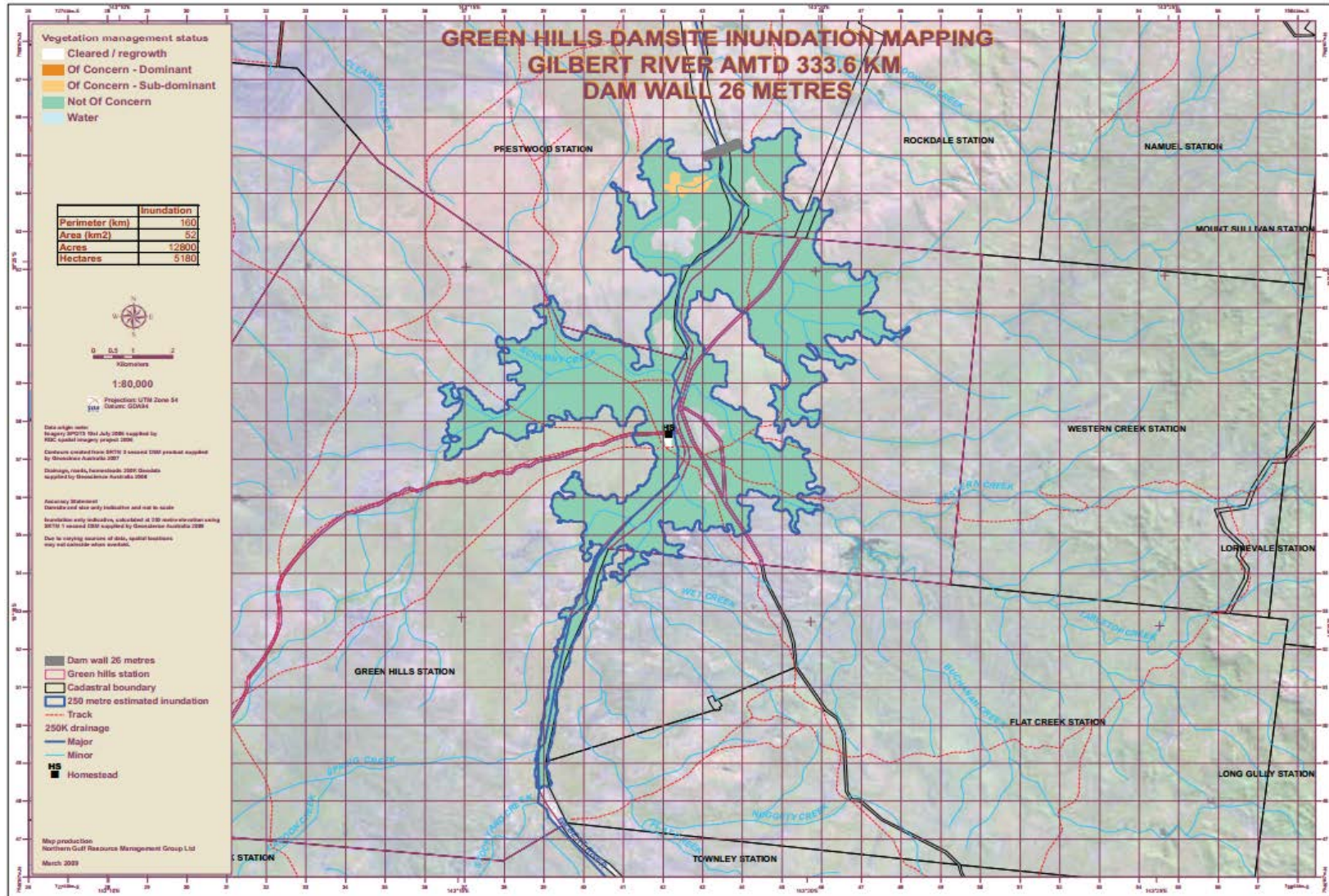
- Establish a Gulf Savannah Region Irrigation Authority commissioned to investigate worthwhile infrastructure investments, regulatory reforms between all three-levels of government, and coordinate approvals between all three levels of government in order to double the agricultural output of the Gulf region.
- Provide funding (in conjunction with the state government and private investors) for the first-phase of the Green Hills Dam proposal. The total cost of the Green Hills Dam is estimated to be \$200 million.
- Provide funding (in conjunction with the state government and private investors) for the first-phase of a dam at O'Connell Creek in Richmond Shire.
- Encourage private investment in necessary supporting infrastructure by fast tracking approvals and making direct appeals to private investors.
- Re-establish the North Australia Land and Water Taskforce and commission it to investigate the potential to integrate the Flinders and Gilbert region with a wider plan to increase irrigated agriculture in Northern Australia.
- Upgrade the Gilbert River's power supply to include 3-phase power, reducing the reliance on inefficient Diesel pumps, at an estimated cost of \$5 million.
- Cooperate with the Queensland government in order to remove unnecessary red-and green-tape, including reforming the *Vegetation Management Act*.
- Call for submissions from established tertiary and vocational institutions to found an Agricultural College in the Gulf.
- Lobby state and local governments to relax residential planning approvals to ensure housing supply can ramp-up in response to a possible influx of workers.
- Conduct a study into upgrading Port Karumba and Normanton Airport.

OPTION 2

- Commission a formal cost-benefit analysis of the 1999 Queensland Water Infrastructure Task Force's Green Hills Dam Proposal.
- Commission a formal cost-benefit analysis for a dam at O'Connell Creek in Richmond Shire.
- Encourage private investment in necessary supporting infrastructure by fast tracking approvals and making direct appeals to investors.
- Call for submissions from established tertiary and vocational institutions to found an Agricultural College in the Gulf.
- Lobby state and local governments to relax residential planning approvals to ensure housing supply can ramp-up with an influx of workers.
- Conduct a study into upgrading Port Karumba and Normanton Airport.



Source: Gulf Savannah Development, *Gilbert River Investment Report 2009*, available at <<http://www.gulfsavannah.com.au/images/stories/documents/Gilbert%20River%20Investment%20Area%20resized.pdf>> accessed 24/08/12



Source: Gulf Savannah Development, *Gilbert River Investment Report 2009*, available at <<http://www.gulfsavannah.com.au/images/stories/documents/Gilbert%20River%20Investment%20Area%20resized.pdf>> accessed 24/08/12

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Source: Australian Government, Department of Sustainability, Environment, Water, Population and Communities, *Australia: State of the Environment 2011*, 195.

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