

CTS No. [CTS No.]

To: Dan Hunt
Acting Director-General

From: Sue Ryan
Deputy Director-General

Endorsed: Andrew Buckley
Executive Director
Ken Sherwood
Regional Manager, Planning and Assessment

Approved / Not Approved / Noted
Further information required
DG
Dated / /

12 September 2012

Sugar mill, power station, dam proposal and cropping proposal for the Gilbert River

Recommendation

1. Note that DNRM has responded to a request by NewCo who are seeking to raise about 5 million dollars for feasibility studies and to secure approvals for their proposed sugar mill, power station, dam proposal and cane plantations along the Gilbert River.

Timing

2. There are currently no timelines associated with the proposal.

Background

3. NewCo has provided the "Minister" (unspecified) and DNRM with an investment brief (**Attachment 1**) to develop a 700 gegalitre dam and weir on the Gilbert River at Green Hills near Georgetown, together with 40 000 hectares of irrigated cane land, a sugar mill and power station.
4. The company is seeking to have the project declared a significant project under the *State Development and Public Works Organisation Act 1971* (administered by the Department of State Development, Infrastructure and Planning), in order to: (i) raise funding (ii) undertake feasibility studies (iii) secure land for their proposal, and (iv) secure development approvals.
5. The department's administrative responsibilities for NewCo's proposal relate to the *Water Act 2000* (dam construction and water entitlements), *Vegetation Management Act 1999* (broad-scale vegetation clearing) and the *Land Act 1994* (resource entitlements to support development applications and leasing of State land).
6. The project brief estimates that access to 200-260 gegalitres of water per annum would be required to irrigate the proposed 40 000 hectares of cane land.
7. The department has commenced a tender process under the *Water Resource (Gulf) Plan 2007* (WRP) to allocate 15 000 megalitres of water from the Gilbert River catchment with a maximum allocation of 6 000 megalitres per entity.
8. NewCo's irrigation proposal far exceeds the available allocation.
9. To reserve water for NewCo's proposal, an amended WRP would need to be prepared involving a full public consultation process, and evidence would be required that existing entitlement holders and environmental flows would not be adversely affected.
10. Construction of a dam on the Gilbert River at Green Hills was first raised in 1999 in a report entitled "Gulf Rivers Investigation - Feasibility Studies for Dam and Weirs on Bundock Creek and Gilbert River".
11. The merits of a dam were also raised in the "Gilbert River Irrigation Area Investment Report" in 2009, by Etheridge Shire Council and Gulf Savannah Development Inc.
12. Remnant vegetation for the proposal area is shown in **Attachment 2** (the relatively small areas shown as "Category X" are subject to Property Maps of Assessable Vegetation, PMAV's, and can be cleared without approval).
13. Broad-scale clearing of vegetation is not normally possible for agricultural or cropping purposes under the *Vegetation Management Act 1999* but may be considered for projects

of State significance under the *State Development and Public Works Organisation Act 1971*, subject to the assessment of an environmental impact study.

14. The department has written to NewCo (**Attachment 3**) to advise them about the process for seeking to have their proposal declared a significant project under the *State Development and Public Works Organisation Act 1971*.
15. The owners of Strathmore Station (downstream of the NewCo proposal) are also seeking to have their proposal to access water for improved pastures for cattle grazing declared a significant project (MECS reference CTS13377/12).

Attachments

- Attachment 1: NewCo investment brief
- Attachment 2: Remnant vegetation in the proposal area
- Attachment 3: DNRM response to NewCo

Clearance

16. No clearance is required as a letter responding to the client has been actioned (Regional Manager Ken Sherwood also telephoned the client to explain the process for seeking to have the proposal declared a project of State significance).

Next steps

17. Further action by the department is dependant on whether NewCo are successful in have their proposal declared a State significant project by the Coordinator General.

Sue Ryan
Deputy Director-General

Enquiries: Gary Innis
Telephone: 4222 5445

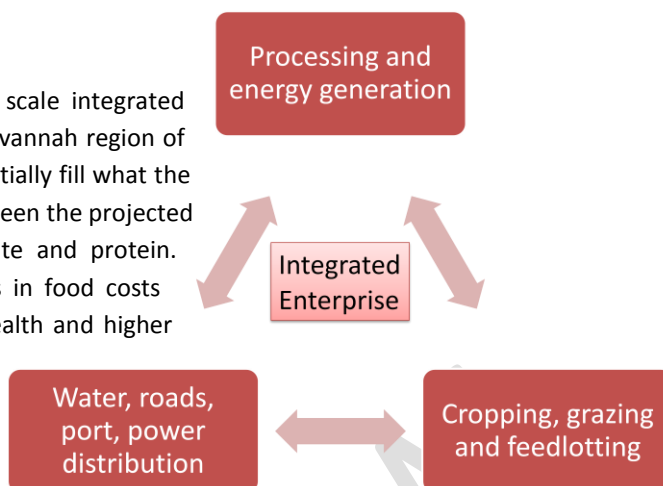
Acting Director-General, Natural Resources and Mines
Comments:

RTI/DL RELEASE - DNRM

PART 1 – INFORMATION ON THE COMPANY

INTRODUCTION

NewCo was established to create a large scale integrated farm and processing precinct in the Gulf Savannah region of North Queensland, Australia in order to partially fill what the Directors believe to be a widening gap between the projected global supply and demand of carbohydrate and protein. This gap is leading to significant increases in food costs driven by population growth, increased wealth and higher consumption of meat and dairy products and use of carbohydrate (sugar and starch) to produce fermented bio-products for energy and food.

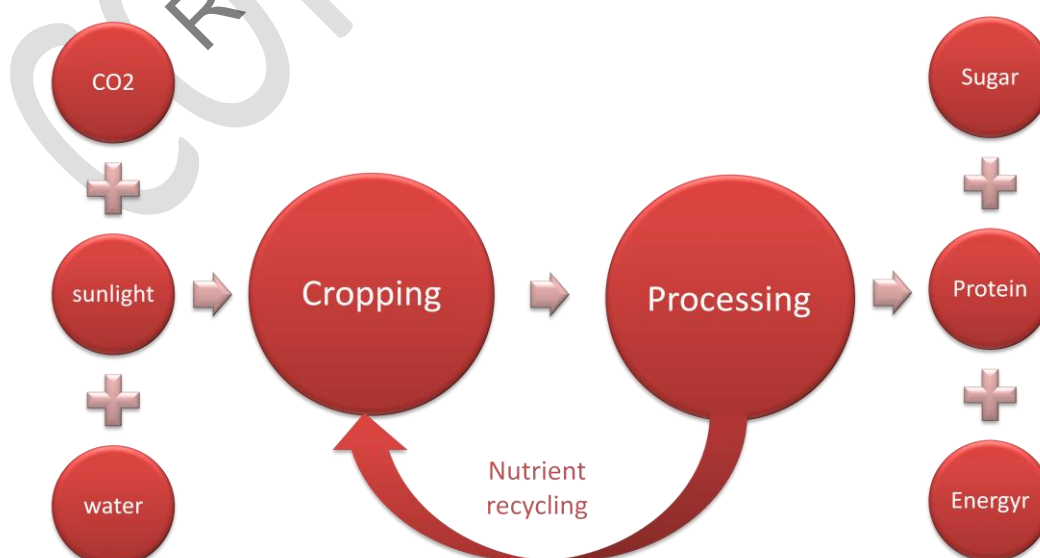


The Company is seeking to raise up to \$5 million through the Offer to fund the development activities required to undertake a Major Fund Raising. The fund raised will be spent on the following activities:

- Geotechnical and soil studies
- Environmental approvals
- Feasibility Study - water storage facility, water capture and delivery, farm setup,
- Securing land
- Investment attraction for the Major Fund Raising
- Legal, accounting and corporate advisory fees plus other costs of the Offer, and
- Fund the short term working capital and administration requirements of the Company.

Following completion of a Major Fund Raising, the Company proposes to establish a greenfield agricultural enterprise comprising 40,000 hectares of cropping land, Australia's largest sugar mill and renewable power plant along with a guar gum plant, feed mill for cattle and associated water, electricity and logistics infrastructure.

Sugar cane – already widely grown in Queensland - and guar bean which is a leguminous crop suited to rotation with sugar cane will be cropped. Australia's largest sugar mill and largest renewable power station will be installed along with a guar gum factory. By-products from cropping and processing will be recycled through Australia's largest feedlot.



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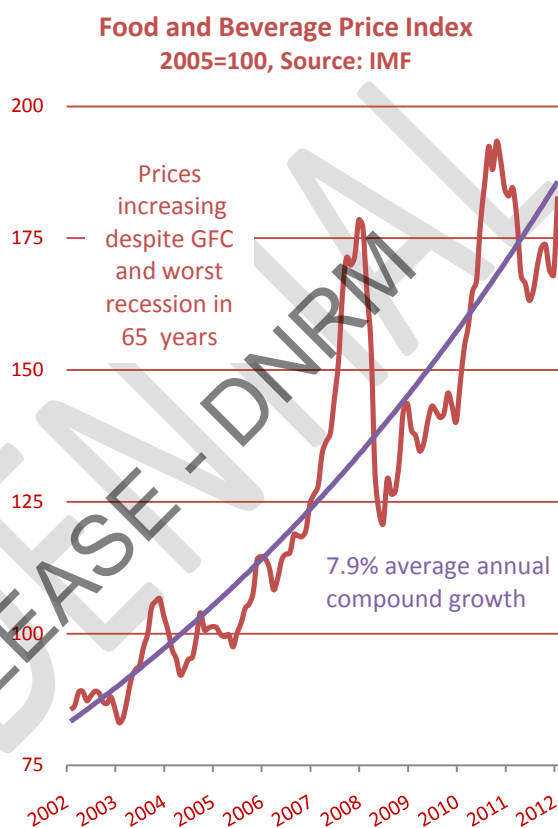
The directors expect that the integrated farming and processing enterprise will produce raw sugar in the lowest cost quartile in the world due to tightly integrated, highly productive farming and state of the art sugar processing technology.

Australia is the only country in the tropical world that can offer row intensive, high yield agricultural technology. The Company's vision is to build on Australian experience and establish a highly mechanized, technically advanced, broad-acre, integrated farming and processing enterprise in the Tropics.

PROJECT DRIVER

The world has a growing need for more carbohydrate and protein, primarily due to the increasing demand for basic food from population growth, rapid industrial expansion, increased wealth and the demand for renewable feedstock.

- Population growth increases demand for carbohydrates such as sugar, grains and potatoes.
- Industrial production uses vast quantities of starch and sugar as raw materials
- Wealth effects lead to increased meat (protein) consumption which requires carbohydrate conversion (mainly grains) by livestock.
- Bioethanol and other bio-products use carbohydrate (glucose) from sugar, maize, wheat or sorghum as feedstock. As societies demand greener production, bioprocessing using fermentation rapidly increases.



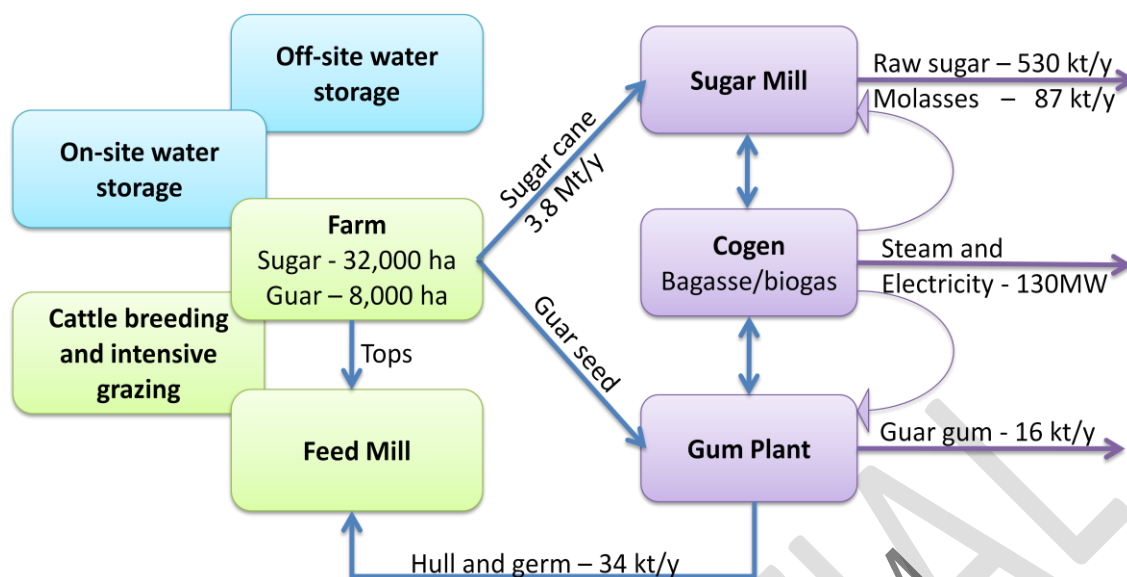
Consequently, prices for food are continuing to climb as predicted by many forecasters in 2007. Recent droughts in the Northern Hemisphere is producing another food price spike – the third in five years, highlighting the tenuous grip the world has on food stocks and disruptions to food supply.

Limited arable land requires growers to increase yields. Government-funded research and development programs around the world have been pared back. The yield trend is declining. New land areas like the IFED project are few and far between in especially in sustainably managed environments like Australia.

PRODUCTS

Australia is the fourth largest exporter of sugar. Over 95% of sugar grown in Queensland is exported. Large scale sugar export facilities have been developed along the East Coast of Queensland. This infrastructure is able to support expansion of sugar exports with minimal additional cost of capital. This enables Australia to be one of the lowest cost producers of new sugar.

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Guar bean is used to produce a natural colloid used in food manufacture and, more recently, coal seam fracking. Increasing demand for gluten free food which requires alternative food additives like guar gum, the very rapid growth in coal seam gas and limited global supply is leading to shortfalls in supply. The project is well positioned to meet local requirements for guar gum.

THE ENTERPRISE

The integrated enterprise includes on-farm and off farm water storage and water distribution, farm and cattle grazing operations, factories, power station, gum processing plant and feedlot.

Integration enables all parts of the project to be optimized. Sustainability and environmental management can be delivered as a central element of the enterprise.

By-products from farming such as green tops and trash can be used as stock feed when blended with protein by-product from the guar gum plant. Molasses can be used to enhance cattle feed.

Summary	Units	Estimate
Sugar	product t	530,000
Molasses	product t	87,000
Bagasse	wet t	1,175,000
Electricity	MWH	835,000
Guar	product t	16,000
Stockfeed	dry t	154,000
Cattle turnoff	kg LWT	18,000

Process water can be recycled and used as irrigation water returning nutrient back to the land. The carbon footprint of the enterprise can be minimized. Feedlotting enables manure to be collected and reused in farming operations thereby decreasing artificial fertilizer application. Farm run-off during heavy rain events can be managed across the entire farm to capture sediment and overland flows which will be used on-farm.

The project output is summarized in the table and covers a diversity of products.

Liquid waste from the sugar mill and gum processing plant will be treated in the biogas plant. Biogas will provide additional energy for the cogeneration plant to dry sugar and gum products.

Sugar will be handled in bulk via B-triples to the Port of Townsville. Gum will be bagged in one tonne flexible intermediate bulk containers (FIBCs). Cattle will be trucked to Karumba for the live export market or to Townsville for processing and export as frozen meat.

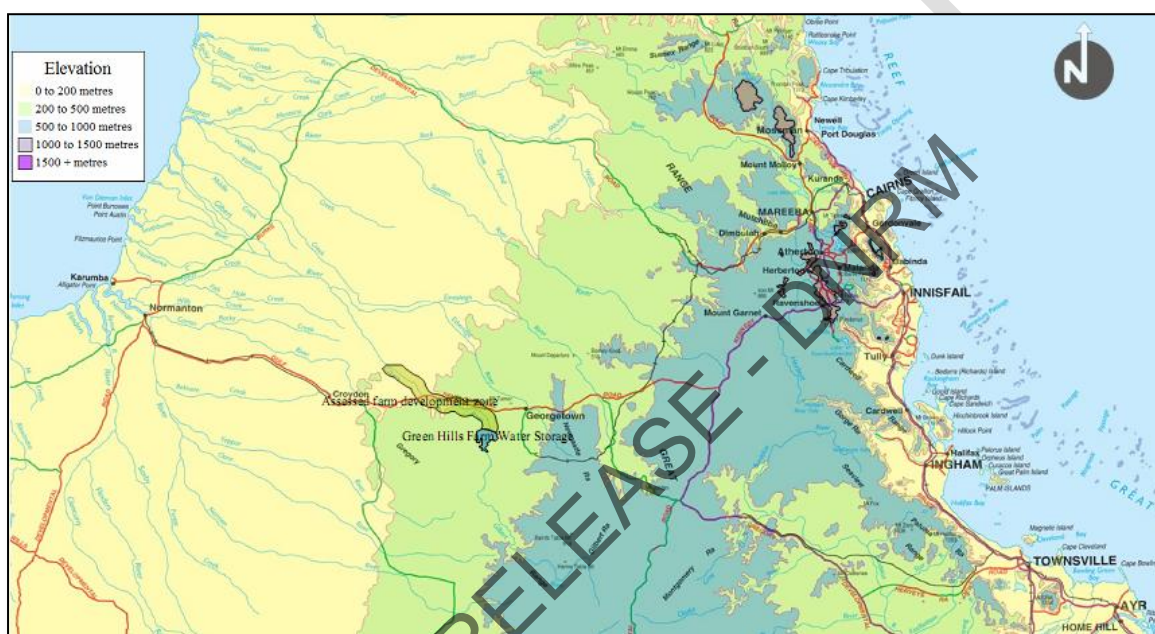
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Nutrient enriched water from the biogas plant will be recycled through the irrigation system for distribution back onto the fields.

PROJECT LOCATION

The project is located between the regional centres of Georgetown and Croydon located on the inland side of the largest mountain range in Queensland. The Gilbert River flows from the western side of the Great Dividing Range into the Gulf of Carpentaria. This eliminates concerns related to the Great Barrier Reef.

FIGURE 1- PROJECT LOCATION IN THE GULF SAVANNAH REGION OF NORTH QUEENSLAND

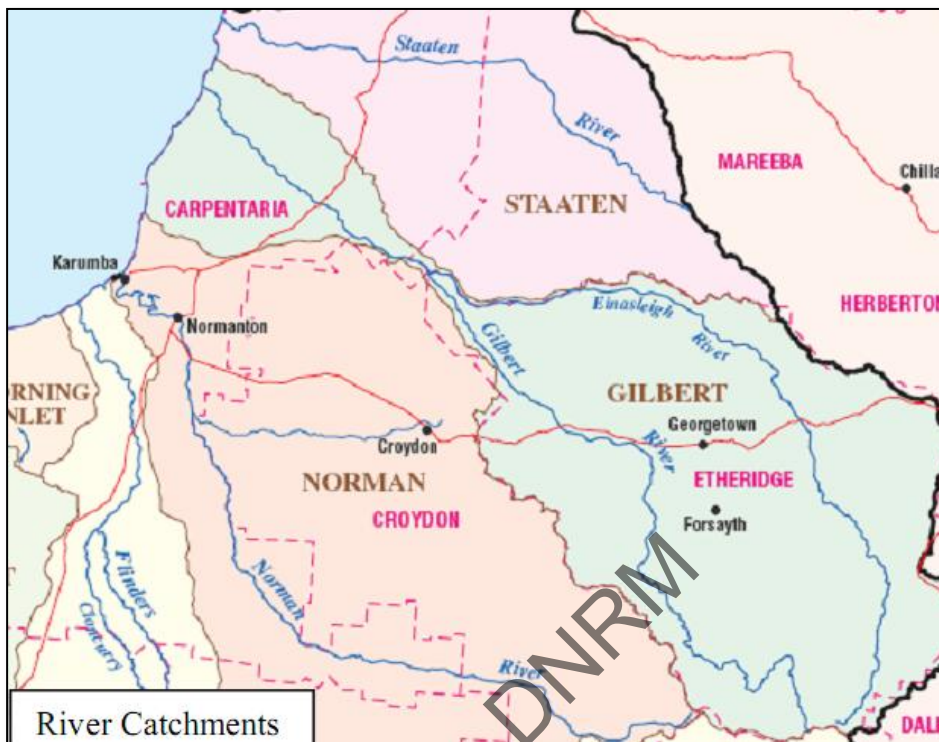


Wikipedia describes the area as:

“The Gilbert-Einasleigh River is one of the largest river systems in northern Australia. Although it is a seasonal stream and discharge can vary greatly depending on the intensity of the monsoon, the Gilbert-Einasleigh has the sixth-highest discharge of any river in Australia, about equal to that of the Potomac in North America. In a very wet "wet" season, however, the discharge can be as large as that of the Fraser River in Canada, and in a dry "wet" like that of 1951/1952, the discharge can be as little as one tenth the long term mean. It is estimated that runoff from the Gilbert-Einasleigh system totals about 2.2 percent of the total runoff from Australia.

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Both the Gilbert and Einasleigh Rivers rise in ancient uplands to the west of the Atherton Tableland in northern Queensland. The two streams have their sources very close to each other but they begin by diverging as they flow into lower-lying country to the west, the Gilbert anticlockwise and the Einasleigh



clockwise. Their almost circular flow takes them eventually together where they join almost due east of Normanton and then flow in a west-northwesterly direction to the Gulf of Carpentaria. The only major tributary is the Etheridge River which joins the two main stems at a point very close to their convergence. From this point on, the river flows into a vast estuarine delta that largely consists of tidal flats and mangrove swamps which flood during the wet season”.

Development of the Project requires access to land which has the following characteristics:

- Preferably soils being sandy clay to loamy clay.
- Good drainage
- Contiguous

LAND TENURE

A total of 17 properties totaling 240,000 hectares are within the targeted project area. This includes the Green Hills Station Water Storage facility which covers an area of around 9,300 hectares at full capacity. Potential farm areas are located below the dam site adjacent to both sides of the Gilbert River.

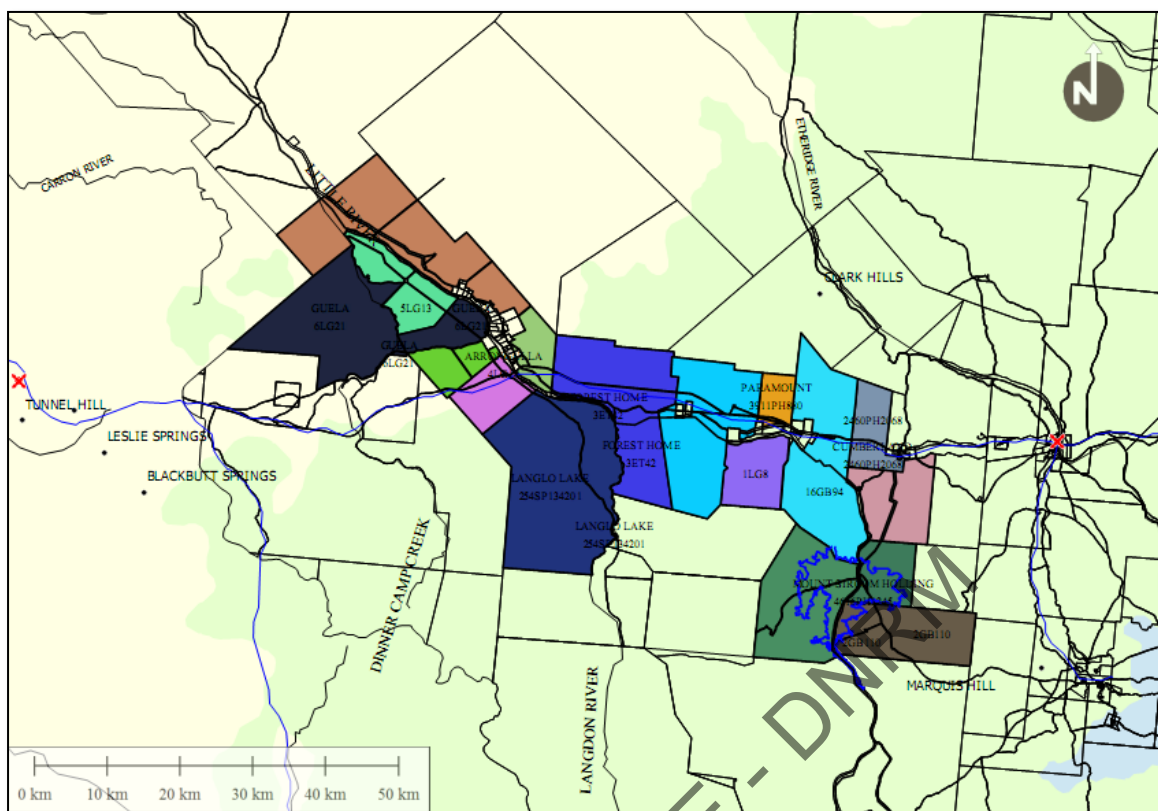
LEASEHOLD VERSUS FREEHOLD

The main types of State lease are:

- term leases (granted for 1–100 years)
- perpetual leases (held by the lessee in perpetuity—not for 99 years as commonly believed)
- freeholding leases (where freehold title has been approved, but the lessee is paying off the purchase price and the freehold title will not issue until this is fully paid).

Most of the properties are categorized as Leasehold (term lease) rather than Freehold. Conversion to freehold will be factored into the project capital cost estimates. An application for conversion to freehold will be assessed against the criteria specified in the Section 167 of the Land Act 1994.

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The assessment will always consider the level of compliance with lease conditions. The assessment may also consider issues relating to:

- forest management
- public interest
- risk of degradation.

When considering an application, the department will:

- use relevant Land Act policies as a guide
- seek the views of relevant stakeholders (e.g. other state government agencies and local government authorities)
- consider native title issues in accordance with the Native Title Acts
- A departmental regional officer may also inspect the site.

If an application is approved, the offer may specify various conditions such as having the land surveyed or the offer may be for only part of the lease. The offer will also set out the terms under which the freehold title may be obtained (including the purchase price for the freehold title). Unless a price or formula has already been stated in the conditions of the lease to be converted, the Act requires the minister to decide the purchase price. The purchase price will be the sum of:

- the total of the unimproved value of the land being offered, as if it were fee simple (freehold)
- the market value of any commercial timber that is the property of the state on the land

The unimproved value of the land is calculated as at the day the minister receives the conversion application. You can appeal against the minister's decision on the purchase price. For many leases, the payment price must be paid in a single payment. However, in some cases, you may be able to pay by annual installments.

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LAND PROCUREMENT

The parties will enter into:

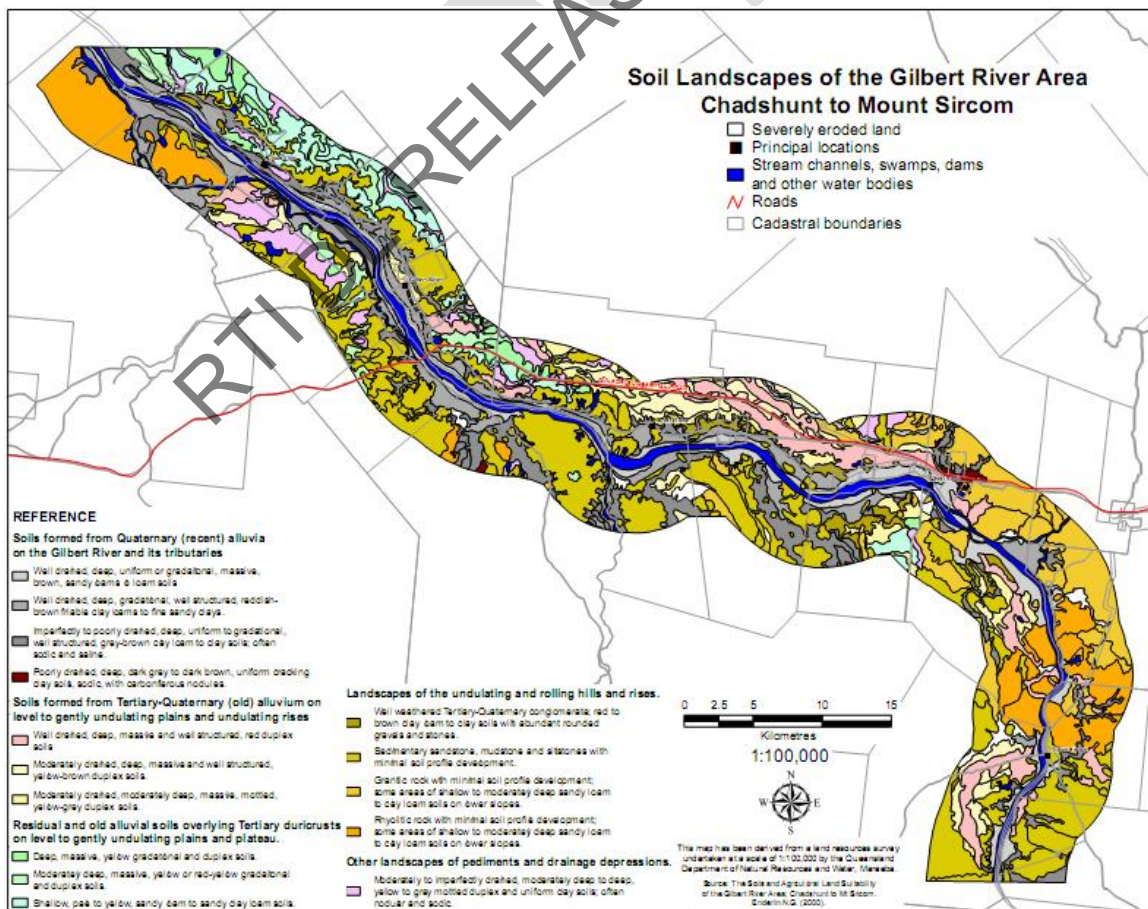
- Call Option Deed will be signed to provide security of land for an extended period of 36 months to undertake the due diligence, approvals and fund raising necessary to execute the project.
- Real Estate Institute of Queensland (REIQ) Commercial Land and Buildings Contract (with standard rural conditions relating to fences, boundaries, water licenses, maintenance of the property and GST-farm land warranties as special conditions) as an annexure, to be signed upon exercise of the Call Option.

This negotiation process has commenced and X landowners have agreed to the proposed arrangement. It is expected that Y landowners will agree. The directors believe that the properties in question are sufficient to provide the project with sufficient land to implement the project.

SOILS AND ARABLE LAND

Around 2,000 ha is currently irrigated along the Gilbert River, but further growth is limited by a range of factors including water availability. Irrigators have to use diesel generators to pump water from the extensive bed sands found within the Gilbert River, or have to rely on on-farm storages that capture overland flow or high river flow.

Soils maps of the Gilbert River have identified substantial areas of highly suitable soils adjacent to the Gilbert River and downstream of the proposed Green Hills Water storage facility.



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Government estimates of arable land are captured in the table and is based only the banded area shown in the figure above. Large areas, particularly sandy soils, are excluded as the assessment is based in furrow irrigation.

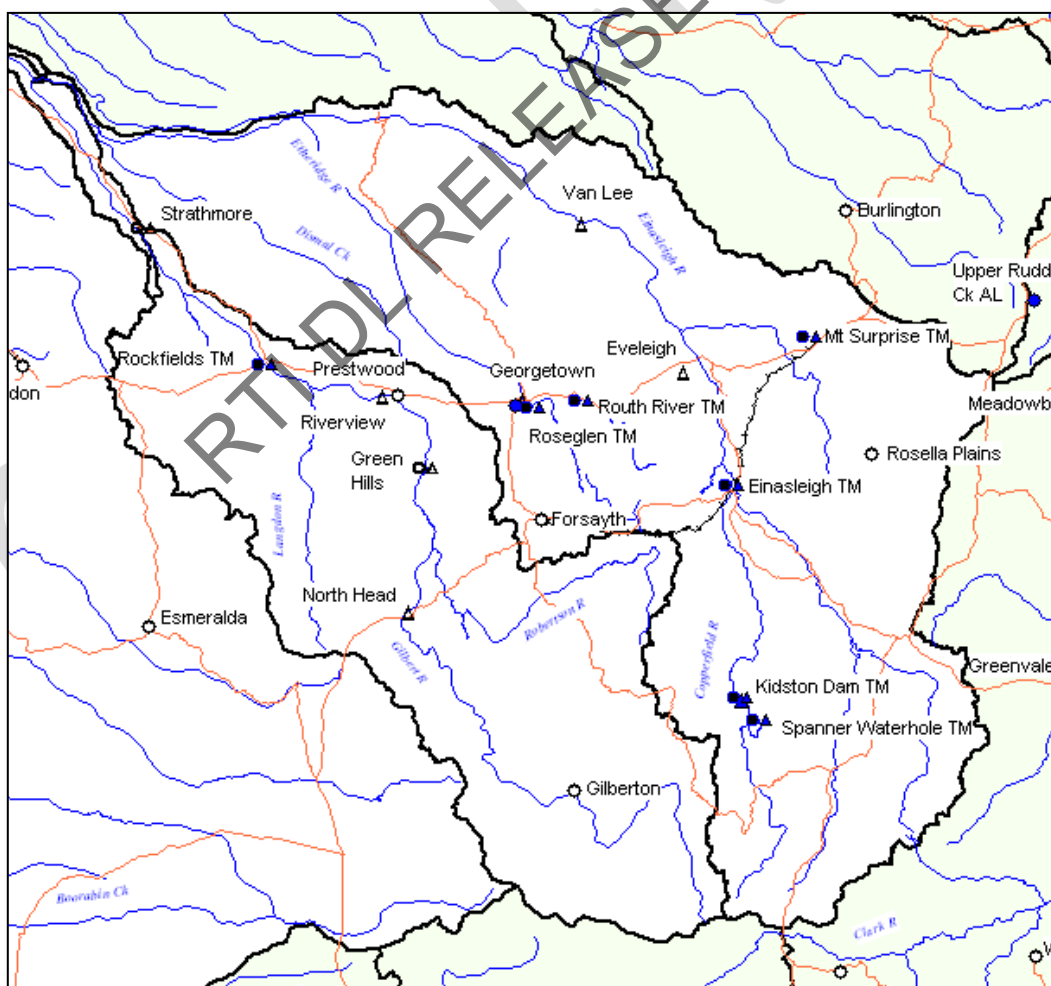
To overcome environmental hurdles, overhead or state of the art trickle irrigation technology will be used to maximise the land area available. This will reduce the effective footprint of the first stage of the project and reduce the water demand as well as reduce manpower required to undertake field operations. Non-arable areas will be used for on-farm water storage.

Soil classification	Units	Area
No limitations	hectares	20,980
Minor limitations	hectares	7,580
Moderate constraints	hectares	14,460
Total area	hectares	43,020

WATER SUPPLY

The potential of the Gilbert River as an irrigated agricultural area has recently been promoted to the Federal Government, by Etheridge Shire Council, based on planning work done by the State Government from 1998 – 2000. Two options identified are a Water Storage Facility in the Gilbert River at approximately the Northern boundary of the Green Hills station, and another is the construction of an in-stream regulating weir. Both options are proposed with the regulating weir providing a mechanism for capturing upstream water releases for distribution to nearby farms.

The irrigation area would be located along the banks of the Gilbert River between the Prestwood and Chadshunt stations.



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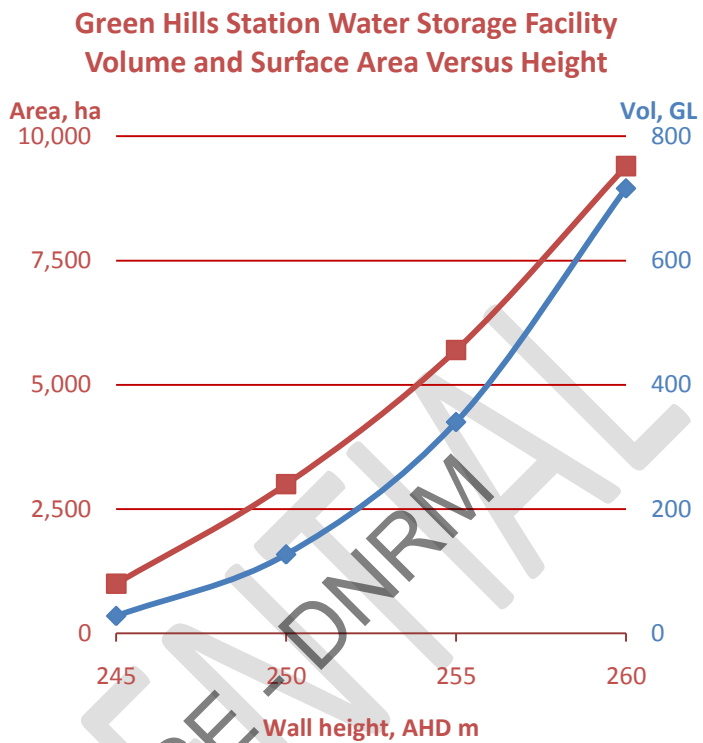
Based on trickle tape and overhead irrigation technology, the water required for irrigation of sugar cane is between 5 and 6.5 megalitres per hectare (one megalitre per hectare is equivalent to 100mm of rain). An area of 40,000 hectares will consume between 200 to 260 gegalitres per year which is equivalent to 5.9% of the River flow at discharge.

The Green Hills Station Water Storage Facility was originally designed to hold 300 gegalitres with an annual yield of 100 gegalitres. An assessment of water storage facility wall heights indicates further potential to expand holding capacity to 700 gegalitres. The water balance for the project area will confirm wall height and annual off-take.

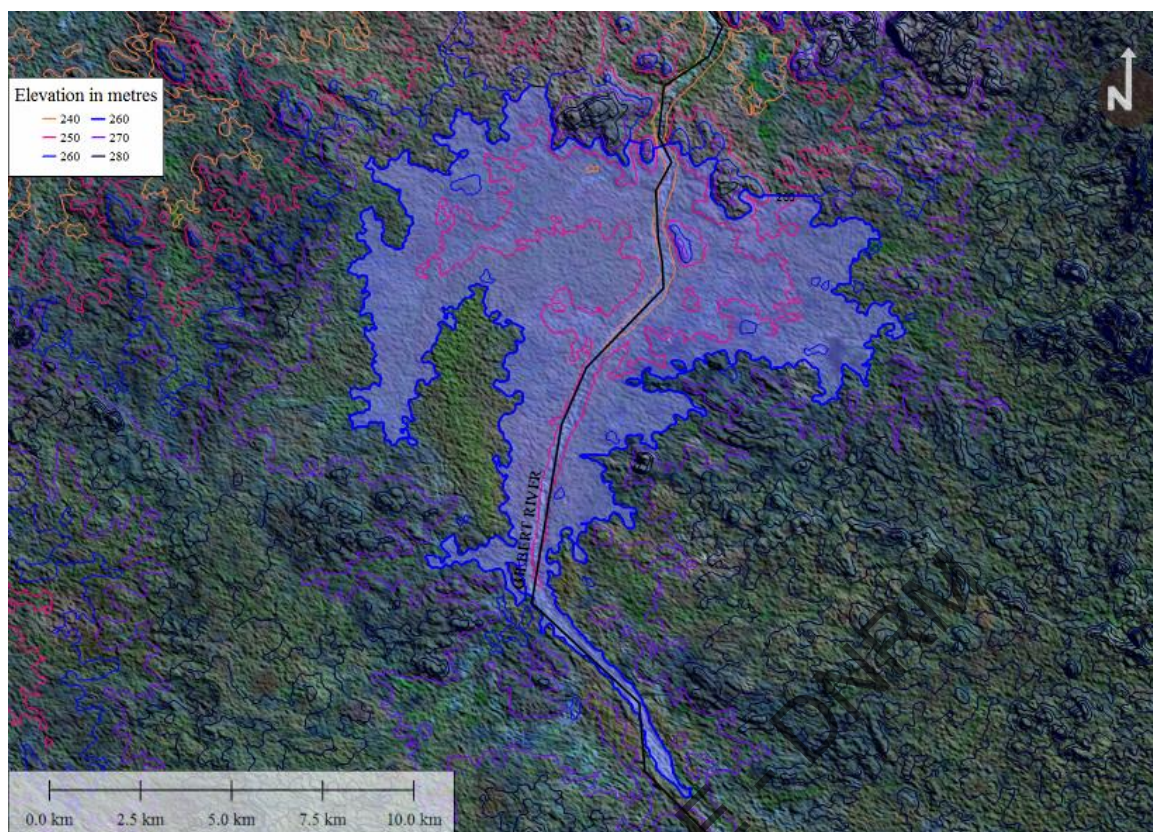
Additional water capacity will be obtained by constructing on-farm water capture and storage facilities based on “ring tanks”. These excavated earth wall structures enable water capture during heavy rainfall events when substantial overland flows develop. Cubbie Station has developed a system which can hold 460 gegalitres of water.

Previous geotechnical studies by the Queensland Government identified an excellent quality hard rock deposit suitable for use by surface quarry methods on the south west escarpment of the proposed water storage facility wall site. This material could be used for the outer shells of the walls and in the on-site production of concrete. A large quantity of suitable sand is also available in the bed of the river. Whilst no site specific investigations have been undertaken, it is considered most likely that clay and gravel materials suitable for use in the core section of the walls will be found in the vicinity of the project.

A natural saddle immediately to the east of the main wall provides a solid base of natural rock for the location of an off-stream spillway proposed to be constructed in reinforced concrete. The spillway would curve in plan to discharge to the river. Hydro power facility structures could be located within this area.



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ENVIRONMENTAL MATTERS

The project is subject to the State Development and Public Works Act 1974 (SDPWOA) and the federal Environmental Protection and Biodiversity Conservation Act 1999.

Environmental values are defined broadly by ANZECC/ARMCANZ (2000, A-9) to be “particular values or uses of the environment that are important for a healthy ecosystem or for public benefit, welfare, safety or health...”. More specifically, the Queensland Government defines a range of environmental values for waterways in the *Environmental Protection (Water) Policy 1997*. These include values for: aquatic ecosystems, human consumption, primary and secondary recreation, visual amenity, cultural and spiritual values, industrial use, aquaculture, drinking water, irrigation, stock water and farm water supply.

Irrigation development is likely to have significant implications for environmental values in the Gilbert River catchment. According to Queensland Department of Natural Resources and Water developments within one kilometer of declared wild rivers “have the potential to cause the most significant and immediate effects on natural values” in the Gulf of Carpentaria.

Although the Gilbert River is **not a declared wild river**, the impacts on environmental values from the development of an irrigation scheme would be most significant in close proximity to the stream.

A state-administered Environmental Impact Statement is required. The federal process is linked to the state process with the Environmental Impact Statement being assessed by the Department of Sustainability, Environment, Water, Population and Communities.

Following completion of the Environmental Impact Statement which is reviewed by the Public, a supplementary report is required. Both levels of government will provide conditions for the development arising from the matters raised in the Environmental Impact Statement and the Supplementary report.

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CARBON FOOTPRINT

The directors believe that carbon footprint of the enterprise will be considerably lower than any other mechanized sugar harvesting area in the world. This is due to the integrated processing arrangement, larger farms using fewer tractors at higher productivity especially with respect to fuel consumption per hectare.

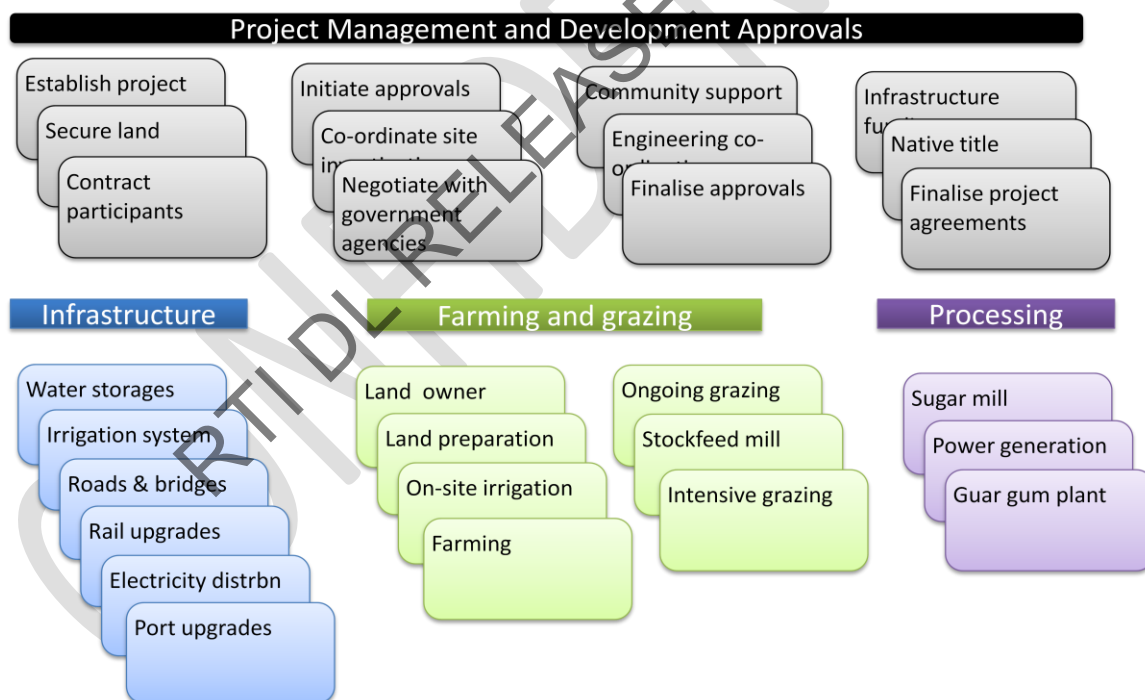
The Green Hills Station Water Storage Facility will be designed to use its height (static head) around 60M above farming areas to deliver water with minimal pump energy.

The project will export “green” electricity into a region which has a high reliance on diesel fuel for electrical energy leading to significant greenhouse gas reductions.

IMPLEMENTATION PLAN

The company objective will be met by breaking the project into four “areas”. The major activities within each area are defined by the blocks below. Each activity will be completed either through in-house capabilities or consulting specialists, vendors or construction contractors.

It is expected that investment in the project may be split into areas with an infrastructure fund focused on infrastructure investment, other companies may focus just on ownership of farm land. Engineering and commercial contracts will be developed to permit future segregation of project areas.

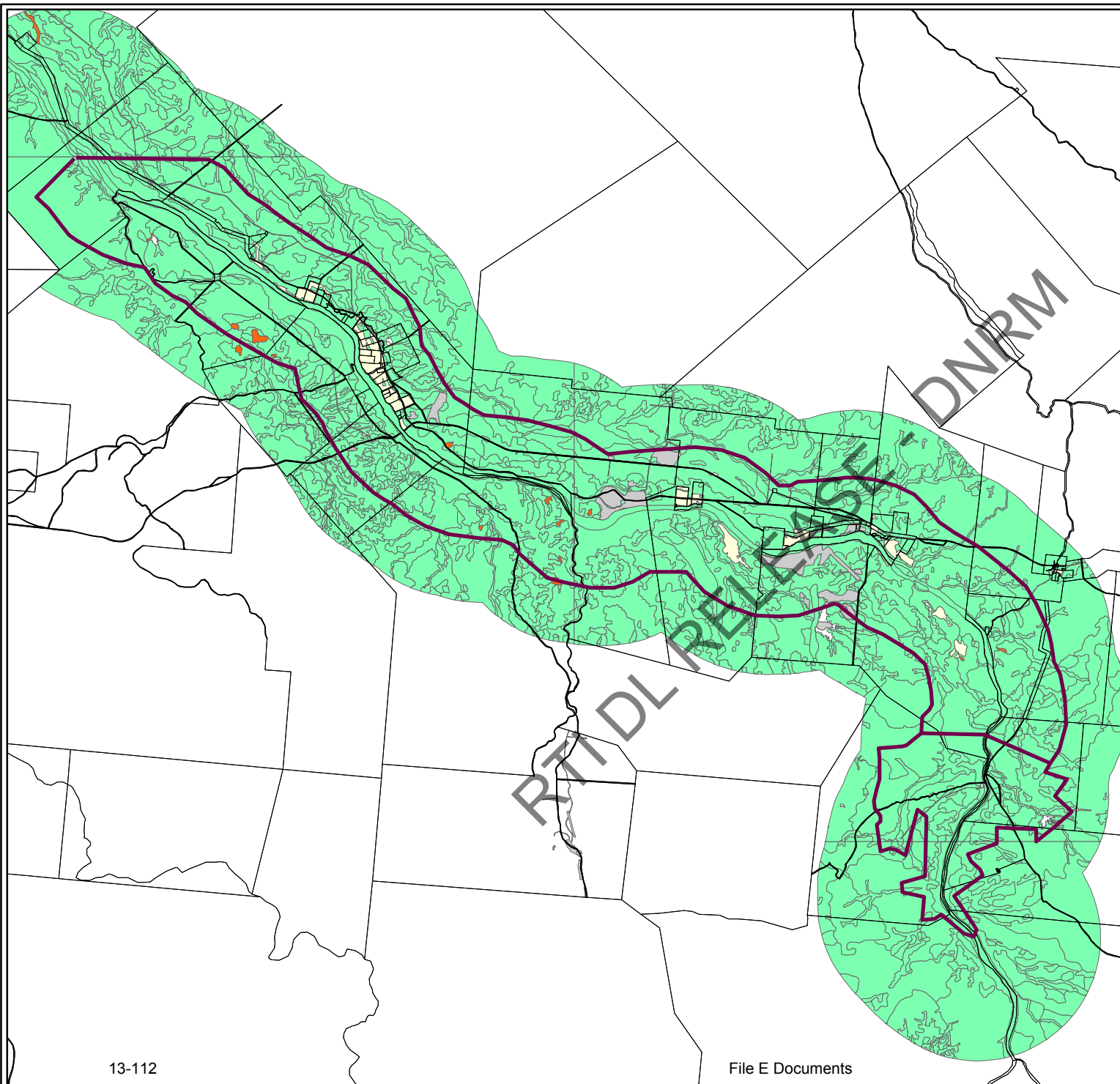


OBJECTIVE

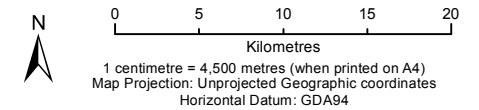
It is our **primary objective** to privately develop the IFED project to an appropriate level of certainty to enable it to be sold to trade players or other parties who will undertake full commercial development of the project. We are seeking to on-sell the project on a “ready to build” basis but recognize that our talented team may need to be retained to deliver the project.

A **secondary objective** is to build a team that can implement the project.

GILBERT RIVER Area Of Interest



- Area of interest
- Property boundaries
- PMAV**
- Category X
- Regional Ecosystems VMA status**
- Containing Endangered regional ecosystems
- Containing Of Concern regional ecosystems
- Is a Least Concern regional ecosystem
- Regrowth
- Cleared or Disturbed



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17 September 2012

Mr Stewart Peters
stewart.m.peters@gmail.com

Dear Mr Stewart

Thank you for your email dated 5 September 2012 concerning NewCO's proposed sugar mill, power station, dam and cropping area for the Gilbert River at Green Hills near Georgetown.

I note that NewCo is seeking to have the project declared a significant project under the *State Development and Public Works Organisation Act 1971* in order to raise funding and secure land and development approvals. This Act is administered by the Coordinator-General of the Department of State Development, Infrastructure and Planning (DSDIP). It is recommended you write to the Coordinator-General seeking a meeting to discuss the merits of your proposal.

DSDIP have recently revised their process for declaration of projects of State significance to require an initial meeting to discuss project feasibility and to ensure early collaboration with the Commonwealth Department of Sustainability, Environment, Water, Population and Communities in relation to potential controlled actions under the *Environment Protection and Biodiversity Conservation Act 1999*. This collaboration is in keeping with the bilateral agreement between the State and the Commonwealth to provide for joint environmental impact assessment processes to reduce the time taken for project approval.

I can advise that the Department of Natural Resources and Mines has administrative responsibilities for the proposal in relation to the *Water Act 2000* (dam construction and water entitlements), *Vegetation Management Act 1999* (broad-scale vegetation clearing) and the *Land Act 1994* (resource entitlements to support development applications and leasing of State leasehold land), and these matters can be progressed following a decision by the office of the Coordinator-General on whether the proposal is considered to be of State significance.

If you require further information regarding this matter, please do not hesitate to contact Mr Paul Horrocks, Manager, Planning and Assessment, North Region of the department by telephone on 4799 7036.

Yours sincerely

s.49 - Signature

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