

Summary results of technical studies



March 2007

Fitzroy Industry & Infrastructure Study Agricultural Corridor

The area proposed for the Agricultural Corridor in the lower Fitzroy region has been carefully examined to ensure its economic, social and environmental suitability. The following is a summary of the results of each of the technical studies commissioned by the Queensland Government as part of the development process.

Land Suitability Study (completed April 2006 by GHD1 Brisbane)

The lower Fitzroy region was identified as being suitable for intensive livestock production and some horticultural activities. Ten or more 15000 head cattle feedlots could be located within the Agricultural Corridor, with room for large piggeries if market demand required. Areas suitable for crops such as citrus, grapes and vegetables were also identified. These assessments were made on the basis of consideration of land use and planning, climate and wind, flora and fauna, cultural heritage, site contamination, topography, soils, hydrology (flood levels), water quality and roads.

Environmental Study (completed February 2007 by GHD1 Brisbane)

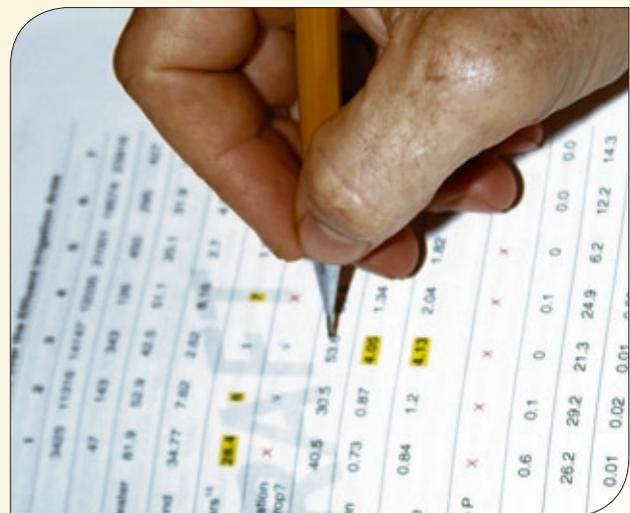
The Environmental Study looked at the appropriateness of siting feedlots in the lower Fitzroy region, in particular, whether nutrients from effluent could be sustainably managed. A thorough two-stage modelling process was used for this.

Stage 1. An industry-standard model (MEDLI²) was used to assess the soils' ability to absorb nutrients and have them effectively removed through the production and harvesting of forage crops without nutrients leaching to groundwater reserves. Suitable soils of sufficient size were found in the area to maintain a nutrient-neutral system.

Stage 2. Another model (MUSIC³) was used to assess the likelihood of effluent pond overtopping events adding nutrients to the Fitzroy River. The results indicate the minimum distance feedlots would have to be located from watercourses to ensure excess nutrient loads do not enter the river system. This information will be used by licensing authorities to ensure appropriate siting of feedlots. Current licensing requirements dictate that pond volumes must be sufficient to prevent overtopping more than once in ten years and that ponds are not located in flood prone areas.

These results have been accepted by technical committee representatives from the Departments of Natural Resources and Water (NRW) and Primary Industries and Fisheries (DPI&F), and the Environmental Protection Agency (EPA).

Note: Notwithstanding the above assessments all specific intensive livestock developments are still subject to individual assessment under the planning scheme and registered by the Department of Primary Industries and Fisheries.





Health Risk Assessment

(completed February 2007 by GHD¹ Melbourne)

The Health Risk Assessment examined any possible effects of *Cryptosporidium*, *Giardia* or Faecal Streptococci on the Rockhampton water supply if a worst-case scenario occurred and feedlot effluent entered the Fitzroy River. Study results showed no additional risk to the health of the Rockhampton population. The report assessed key assumptions and demonstrated a large safety buffer ensuring drinking water safety. Feedlot planning and approval processes are designed to minimise the risk of effluent entering water courses. This report was accepted by an advisory group comprising Fitzroy River Water, Queensland Health, EPA, DPI&F and NRW.

Climate Assessment

(completed August 2006 by Katestone Environmental⁴)

This report assessed the frequency of climatic conditions that could adversely affect the welfare of feedlot cattle in the area. Weather data taken at Rockhampton Airport showed that there was no incidence of extreme heat stress.

Economic Evaluation

(completed February 2007 by Economic Associates⁵)

This study analysed the expected impact of the proposed intensive livestock development on the local and Queensland economy, showing the proposed Agricultural Corridor was economically viable and producing a beneficial impact for the local economy.

Weir development

The announcement by the Queensland Government of weir developments in Central Queensland (Rookwood Weir and raising of Eden Bann Weir) in April 2006, while important to the agricultural corridors development, are not part of this study. Separate Environmental Impact Assessments will be

conducted in relation to the weir developments. The Central Queensland Regional Water Supply Strategy has identified the weir developments as a requirement for future urban, industrial and agricultural growth.

Odour and nuisance flies

Issues of odour and flies that can arise from feedlots will be addressed by appropriate feedlot management and maintenance of adequate separation distances. Separation distances are key consideration for feedlot registration and the identified development areas are generally remote from residential parts of the region.

Public consultation and feedback

Local residents, business owners and the public may access copies of all documents relating to the FIIS development, offer feedback on the proposed development or identify other issues that they feel may not have been considered.

To do so, please:

- **visit the information displays** at the Rockhampton State Development Centre (corner of Fitzroy and Bolsover Streets) or the Department of Primary Industries and Fisheries Rockhampton (corner of Bruce Highway and Yeppoon Road), where copies of the technical studies will be available
- **visit the website** at www.infrastructure.qld.gov.au/fiis
- **contact the Department of Primary Industries and Fisheries Business Information Centre** on 13 25 23 (local call) to obtain copies of documents or to speak with a project representative
- **email** comments to fiis@infrastructure.qld.gov.au
- **post** comments to
FIIS Coordinator
Department of Infrastructure
PO Box 15009
City East Qld 4002
- **fax** comments to (07) 3225 8158.

- 1 GHD is an international consulting company working in the areas of infrastructure, mining and industry, defence, property and buildings and the environment.
- 2 Model for Effluent Disposal Using Land Irrigation assesses effluent design to predict overtopping frequency and nutrient accumulation rates in soils used for effluent disposal.
- 3 Model for Urban Stormwater Improvement Conceptualisation (MUSIC) assesses nutrient movement to waterways from various sources assessing the impact of treatment methods.
- 4 Katestone Environmental is a consulting company specialising in all aspects of air quality modelling and associated aspects of climatology.
- 5 Economic Associates is an established Brisbane company providing economic consultancy advice.



Queensland Government