**Queensland Reconstruction Authority** 

# **Commission of Inquiry**

CROWN LAW–(QRA – Brendan Nelson) Response to Req. Ref#1751323 SM#1762697 & Attach BJN-14 – BJN-32 File 539877/1 Volume 1 of 3 ORIGINAL

# Supplementary Statement from Mr Brendan Nelson, General Manager Land Use Planning

**Attachments BJN-14 to BJN-32** 

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# QUEENSLAND FLOODS COMMISSION OF INQUIRY

# SUPPLEMENTARY STATEMENT OF BRENDAN JOHN NELSON

I, **BRENDAN JOHN NELSON** of c/- Level 9, 119 Charlotte Street, Brisbane in the State of Queensland solemnly and sincerely affirm and declare:

- 175. This statement supplements the statement I swore on 15 September 2011 and which was tendered as exhibit 538 at the Queensland Floods Commission of Inquiry on 19 September 2011.
- 176. In addition to the facts and circumstances previously sworn, I provide the following additional information for the Commission.

## Rebuilding Grantham Together - Development Scheme for the Grantham Reconstruction Area

- 177. The Queensland Reconstruction Authority (the Authority) met with the Lockyer Valley Regional Council (the Council) on 23 March 2011 and 10 May 2011. A copy of the presentations provided to the Council on 23 March 2011 and 10 May 2011 are included at attachment BJN-14 and BJN-15.
- 178. The presentation to Council on 23 March 2011 provided an overview of the process and outcomes sought through the declaration of a Reconstruction Area for Grantham. Council endorsed the process and outcomes sought by the Authority and resolved "to request that the Premier and Minister for Reconstruction declare Grantham a reconstruction area in accordance with section 43 of the Queensland Reconstruction Authority Act 2011". A copy of the Council resolution is included at attachment BJN-16.
- 179. Following the request of the Council on 23 March 2011, the Authority's Board endorsed the recommendation to declare Grantham as a Reconstruction Area, the Premier and Minister for Reconstruction approved the recommendation, and on 8 April 2011, the Governor in Council declared Grantham a reconstruction area through the *Queensland Reconstruction Authority Regulation 2011*.
- 180. Given the declaration, the Authority commenced the preparation of a Proposed Development Scheme (the Scheme). The Scheme was however, reliant on receipt of the Master Plan provided by the Council following the community consultation process.
- 181. Throughout the period of 8 April 2011 through to 11 May 2011, the Authority held a number of discussions with the Council's officers and their consultants in the preparation of the Scheme. These discussions commenced on 12 April 2011 with Council's Project Director, Mr Jamie Simmonds and continued up until 10 May 2011 at which time the Authority presented to the full Council. During this period, Council's Project Director, Mr Jamie Simmonds provided the Authority with a copy of the proposed Master Plan on 29 April 2011. The final Council endorsed Master Plan was received on 4 May 2011 (which included slight modifications to the version provided on 29 April 2011). The proposed Stage 1 Concept Plan was provided to the Authority on 6 May 2011 (Refer to attachment BJN-17).

- 182. The Master Plans received on 29 April 2011 and 4 May 2011 were conceptual and did not include a proposed or detailed lot layout. This is not unusual for a Master Planning exercise.
- 183. The Stage 1 Concept Plan received on 6 May 2011 outlined a proposed lot layout, however it did not include individual lot sizes or any detail regarding lot dimensions. Again, this is not unusual in the evolution of a development proposal from a concept master plan to a detailed design plan.
- 184. On 11 May 2011, the Authority released for public consultation the Proposed Development Scheme. The scheme remained on consultation until 23 June 2011.
- 185. Throughout the consultation period, the Authority continued to work with the Council to ensure that the aim of having some residents in their homes by Christmas 2011 remained achievable.
- 186. On or around 17 May 2011, the Council advised the Authority that they would be in a position to commence earthworks construction by the end of May or early June 2011. Given that the proposed development scheme was on public notification, a mechanism was required to support the commencement of the earthworks.
- 187. A Temporary Local Planning Instrument (TLPI) was considered the most appropriate mechanism to allow the earthworks to commence by reducing the level of assessment for Operational Works within the Grantham Reconstruction Area to self-assessable development.
- 188. The TLPI was prepared by the Authority and the Department of Local Government and Planning. Temporary Local Planning Instrument 03/11 - Grantham - Operational Works was adopted by the Council on 27 May 2011 and the official sod turning was held on 7 June 2011.
- 189. On 16 June 2011 the Council contacted the Authority to advise that they had engaged consultants, *Town Planning Strategies* to formulate a submission in relation to the proposed development scheme on behalf of the Council's Planning Department.
- 190. On 20 June 2011 the Authority received preliminary comments on the proposed development scheme from Council's consultants, *Town Planning Strategies* (Refer to attachment BJN-18).
- 191. On 22 June 2011 the Authority met with Council's consultants *Cardno, Town Planning Strategies* and *Deicke Richards* to discuss the preliminary comments. The Authority had requested that Council representatives attend, however none were available.
- 192. The meeting was held to work through the preliminary comments raised on behalf of the Council. Specific discussions were held in relation to minimum lot sizes and lot dimensions. Of note, the preliminary comments made by Council's consultants included:
  - At 1,000 sq m, the minimum lot size for sewered residential lots is too large. It is not an economic form of development in major cities and is unlikely to be feasible at Grantham.
  - A 20 m frontage is relatively narrow for a 1,000 sq m lot. It gives a 1:5 frontage to depth ratio. I think that it is the width of the frontage that creates the open feel usually associated with larger lots. A 25 m frontage will give a 1:4 ratio (frontage to depth). Urban small lots are the only ones that I am familiar with that have a 1:4 ratio. For a larger urban lot, the shape is 1:2.5.

- Practically, lots need to be sufficiently wide to allow access to a large shed in the back yard to
  accommodate vehicles and equipment normally associated with residences in rural service
  centres.
- 193. Following the above meeting, the consultants advised that they would amend the comments and forward to the Authority as a Council properly made submission prior to the close of business on 23 June 2011.
- 194. At or about 4pm on 23 June 2011, the Authority received via email a formal submission from the Council. The submission remained unchanged from the preliminary comments received on 20 June 2011 (Refer to attachment BJN-19).
- 195. Notwithstanding the submission made by the Council, the Authority maintained the lot sizes to provide consistency with the request originally made by the Council and the community led master plan. The only exception was the consideration of allowing a minimum lot size of 3000m<sup>2</sup> within the Rural Residential Living 2 precinct. This minimum lot size conforms to the existing Park Residential zone in the Gatton Planning Scheme. (Refer to attachment BJN-20).
- 196. In addition to the lot sizes, the Authority maintained the lot frontages to be generally consistent with those provided under the existing Gatton Planning Scheme, specifically the 20m frontage for the Residential Living lots.
- 197. Following the conclusion of the public notification period the Authority finalised the Development Scheme and this process was tabled in paragraphs 36 - 39 of Exhibit 538.
- 198. The Development Scheme for the Grantham Reconstruction Area took effect via regulation on 4 August 2011.
- 199. On or about 26 July 2011, during the finalisation of the Development Scheme, the Council identified through their detailed survey plan, that a number of proposed lots in the Stage 1 development would not meet the proposed minimum lot size and a very small number of lots would be less than the minimum lot frontage of 20m, noting that the Council submission to the proposed development scheme had sought an increase to 25m minimum frontages for these lots.
- 200. On this basis, the proposed subdivision for Stage 1 did not meet the specific assessment criteria for the application to be *exempt development* under the Development Scheme. Exempt development has the meaning outlined in the *Sustainable Planning Act 2009* and in the Development Scheme. It essentially means that development is not subject to an approvals process. The application would therefore be subject to code assessment.
- 201. In the interests of continuing the momentum and to ensure that the overall objective of having some residents in their new homes by Christmas 2011, the Authority offered to prepare on behalf of Council, the code assessable development application to support the Stage 1 subdivision. The Council accepted this offer.
- 202. On 3 August 2011, the Authority provided to the Council:
  - a) Development Assessment Report including IDAS forms, plan of subdivision and response to the applicable codes;

- b) A proposed officer's report; and
- c) A proposed Decision Notice

(Refer to attachment BJN-21)

- 203. After the Development Scheme came into effect on 4 August 2011, and utilising the supporting documentation prepared by the Authority, the Council processed the code assessable application and immediately approved the Stage 1 subdivision under the Development Scheme for the Grantham Reconstruction Area.
- 204. On 4 August 2011, the survey plans were sealed and titles were issued for all 95 new lots.
- 205. On 6 August 2011, the land ballot was held meeting the requirements of the Land Sales Act 1984 as titles had been issued for lots being offered for purchase.
- 206. The Land Ballot has progressed with a number of key milestones being reached including a number of residents settling on their new land from 19 September 2011.
- 207. A temporary vehicle access across the Railway line has been completed by the Department of Transport and Main Roads. This will allow for those residents wanting to relocate the existing homes from the lower land to the higher land the opportunity to do so (Refer to attachment BJN-22).
- 208. The Authority understands that a number of residents have signed contracts with builders who will be commencing work on the new lots in early October 2011. This milestone is on target to see some residents in their homes by Christmas 2011.
- 209. I am not aware of any typographical errors or mistakes in the Grantham Development Scheme.
- 210. On 17 October 2011, the Prime Minister, the Honourable Julia Gillard MP and the Acting Premier, the Honourable Andrew Fraser MP announced the provision of up to \$18m towards the establishment of vital community infrastructure including water, sewerage and roads in the new Grantham development.

## Planning for stronger, more resilient floodplains

- 211. On 20 September 2011, the Acting Minister for Local Government, the Honourable Annastacia Palaszczuk MP approved Temporary State Planning Policy 2/11 Planning for stronger, more resilient floodplains (TSPP). A copy of the TSPP is provided at attachment BJN-23.
- 212. The effect of this TSPP is to:
  - Suspend the effect of paragraphs A3.1 and A3.2 of Annex 3 of State Planning Policy 1/03 (the SPP) *Mitigating the Adverse Impacts of Flood, Bushfire and Landslide.*
  - Make a Temporary State Planning Policy dealing with and giving effect to the matters suspended in paragraphs A3.1 and A3.2 of Annex 3 of State Planning Policy 1/03: *Mitigating the Adverse Impacts* of *Flood, Bushfire and Landslide* by providing local government with information necessary to determine the Natural Hazard Management Area (Flood) and then adopt an associated overlay map(s) and code by way of an amendment to an existing planning scheme.

- 213. Annex 1 of the TSPP outlines the process by which a Local Government may designate a Natural Hazard Management Area (Flood). Where proposing amendments to an existing planning instrument under the *Sustainable Planning Act 2009*, a Natural Hazard Management Area (Flood) is:
  - 1) land inundated by a Defined Flood Event (DFE) and identified in a planning instrument; or
  - 2) the Interim Floodplain Assessment Overlay mapping and Model Code provided by the Queensland Reconstruction Authority; or
  - 3) the Interim Floodplain Assessment Overlay mapping and Model Code as amended by the relevant Local Government.
- 214. Where proposing a new planning instrument under the Sustainable Planning Act 2009, a Natural Hazard Management Area (NHMA) (Flood) is:
  - 1) land inundated by a Defined Flood Event (DFE) and identified in a planning instrument; or
  - 2) the Interim Floodplain Assessment Overlay mapping and Model Code provided by the Queensland Reconstruction Authority; or
  - 3) the Interim Floodplain Assessment Overlay mapping and Model Code as amended by the relevant Local Government.
- 215. By way of comparison, both the Bushfire and Landslide components of the SPP1/03 have nominated a default state wide approach for the designation of Natural Hazard Management Areas for Bushfire and Landslide. The approach being proposed in the TSPP for Flooding is consistent with the approach currently undertaken for Bushfires and Landslides.
- 216. According to Annex 3 3.3 of SPP1/03 a Natural Hazard Management Area (Bushfire) is:
  - an area identified by a local government in its planning scheme consistent with the conclusions of a bushfire hazard assessment prepared in accordance with Appendix 3 of the SPP Guideline or other methodology approved by the Queensland Fire and Rescue Service (QFRS); or
  - b) where such a study has not been undertaken, an area identified by a local government in its planning scheme, reflecting the Medium and High hazard area of the Bushfire Risk Analysis maps produced by the QFRS, suitably modified following a visual assessment of the accuracy of the maps by the local government; or
  - c) where an area has not been identified by a local government, the Medium and High hazard areas on the Bushfire Risk Analysis maps produced by the QFRS.
- 217. The default mechanism for Bushfire is the Bushfire Risk Analysis maps produced by QFRS. This mapping was developed using a state wide mapping approach. The approach was based on three variables:
  - 1. Slope (Gradient of landscape)
  - 2. Aspect (Exposure of direct sunlight on vegetation)
  - 3. Vegetation (Varying types have higher fire ratings)
    - Remnant Vegetation, Pre-clear Vegetation, Tropical Savannahs and Tree Survey data (where available)

- 218. The above approach has resulted in Bushfire Risk Analysis maps being produced for all 73 Local Government Areas and for the Weipa Town Authority. The first set of maps was produced in 2002, a revised set in 2005 and the latest versions were produced in 2008 and these are available at <a href="http://www.ruralfire.qld.gov.au/Bushfire%20Planning/index.html">http://www.ruralfire.qld.gov.au/Bushfire%20Planning/index.html</a>.
- 219. An example of a Bushfire Risk Analysis map produced by the QFRS is provided at attachment BJN-24. This map covers the Banana Shire Council Local Government Area.
- 220. Banana Shire Council currently administers two planning schemes for the former Banana Shire and the former Taroom Shire. The default state wide mapping for Bushfire applicable to Banana Shire Council included at attachment BJN-24 has been instrumental in both the Banana Shire and Taroom Shire planning schemes appropriately reflecting SPP1/03. Included at attachment BJN-25 are the Bushfire Hazard overlays for the Banana Shire and Taroom Shire Planning Schemes.
- 221. This default state wide mechanism for mapping Bushfire has been very successful in aiding local governments to appropriately reflect the relevant provisions of SPP1/03 in their planning schemes. At attachment BJN-13 (page 9) in exhibit 538, it is noted that many of the reviewed planning schemes were identified to appropriately reflect either or both the bushfire and landslide components of SPP1/03 without appropriately reflecting the flooding component. In this regard, 90 of the 124 planning schemes (73%) have been identified as appropriately reflecting either the bushfire / landslide component of SPP1/03. The remaining 34 (27%) planning schemes were identified as not formally appropriately reflecting any component (bushfire, landslide or flood) of SPP1/03.

222. Further, according to Annex 3 - 3.4 of SPP1/03 a Natural Hazard Management Area (Landslide) is:

- a) an area identified by a local government in its planning scheme consistent with the conclusions of a landslide hazard assessment prepared in accordance with Appendix 4 of the SPP Guideline; or
- b) where such a study has not been undertaken, an area identified by a local government in its planning scheme and including all land of 15% and greater slope and other land known or suspected by the local government as being geologically unstable, together with other areas that the local government considers may be adversely affected by a landslide event; or
- c) where an area has not been identified by a local government, all land with a slope of 15% or greater.
- 223. As provided for in the SPP1/03 Guideline, both options c) above for Bushfire and Landslide represent the default state wide mechanism for designation of Natural Hazard Management Areas.
- 224. In contrast, the SPP1/03 Guideline specifically states in clause 5.7 that a default mechanism for flood hazard management was not adopted for the SPP1/03 as reliable state wide flood data was not available at the time the SPP1/03 was prepared.
- 225. Reliable state wide floodplain data is now available to support a state wide default mechanism for flood hazard management.
- 226. The approach being proposed by the Authority through the draft Part 1 Guideline and supporting toolkit and streamlined adoption process will result in an almost immediate increase in the number of current planning schemes that appropriately reflect SPP1/03 through the TSPP with respect to flooding.

## Floodplain Management Toolkit

227. The draft Part 1 Floodplain Management toolkit provided by the Authority includes the draft Part 1 Guideline, Mapping (hard copy and digital) for each sub basin and a draft Model Code.

# Streamlined adoption of Floodplain Management Toolkit provisions

- 228. The draft Part 1 Guideline outlines the process by which a Council may choose to adopt elements of the toolkit including the Interim Floodplain Assessment Overlay (IFAO) mapping and model code provisions as a new section "Interim Floodplain Assessment Overlay" within their existing planning scheme.
- 229. The following 6 steps outlines the streamlined process by which a Council can review, resolve and adopt the toolkit if they choose to do so.

<u>Step 1</u>: Council obtains toolkit including:

- a) Guideline
- b) Model Code
- c) Mapping
  - i. Hard copy mapbook
  - ii. Digital copy mapbook
  - iii. Digital datasets

<u>Step 2</u>: Council commences review process including the mapping product and the planning scheme provisions.

- a) In reviewing the mapping, Councils are encouraged to utilise existing flood studies, records, photographs and local knowledge to visually inspect and ground truth the IFAO.
- b) Authority officers to visit the Council and assist as required.

Step 3: Council resolves to undertake a minor scheme amendment to either:

- a) Adopt mapping and Model Code as provided by the Authority unchanged; or
- b) Adopt Model Code as provided by the Authority and adopt locally amended mapping; or
- c) Adopt mapping as provided by the Authority and adopt amended Model Code; or
- d) Adopt locally amended mapping and amended Model Code.

Councils can choose to adopt either of the options or a combination of the above to all planning schemes applicable in their jurisdiction.

During the amendment process to either the mapping / code provisions, the Authority can assist particularly the low-growth Councils in making any refinements.

Where amendments are proposed either under b), c) or d), Council should outline the basis for the amendments (ie. based on a localised flood study).

<u>Step 3a</u>: In addition to a) – d) above, a Council may choose to adopt the mapping as a NHMA (Flood) as provided under the TSPP.

In designating this area as a NHMA (Flood), the identified area can also be used in the assessment of building work under the *Standard Building Regulation 1993*.

In addition to the nomination of NHMA (Flood), a Council can also choose to nominate flood levels as per section 13 of the *Standard Building Regulation 1993*. Adoption of a flood level will allow for a more streamlined adoption of the Queensland Development Code amendment provisions relating to construction of residential dwellings in flood liable land.

<u>Step 4</u>: Council forwards to DLGP a minor scheme amendment package/s for each of the planning schemes where amendments are proposed. If the amendment package is proposed under option a) in Step 3 above, DLGP will consider the fast-tracking of the amendment as a minor scheme amendment.

If Council elects to proceed with option b), c) or d) from Step 3 above, DLGP will refer the amendment package to Authority for review.

The Authority will liaise with DERM and confirm any amendments or refinements to the mapping and update the state wide information with the proposed amendments.

The Authority will review any such amendments within 5 business days of receipt from DLGP.

DLGP will then provided to the Minister for consideration, the minor scheme amendment package within 10 business days from either receipt of a package provided under option a) or following confirmation from the Authority that the amendments are appropriate.

<u>Step 5</u>: Council incorporates approved scheme amendments into applicable planning schemes as new sections as either Overlay Code or Overlay Area depending on the format of the existing scheme.

<u>Step 6</u>: Assessment of any new applications triggered in the "Floodplain Overlay Area" against the Floodplain Code.

- 230. A planning scheme amendment process would normally take at least 6 months including public consultation and state agency review periods. The streamlined process being facilitated by the Authority and the DLGP to adopt the toolkit, may be undertaken in as little as a few weeks given that the Authority is undertaking the public consultation and state agency review on behalf of Council's.
- 231. Statutory Guideline 02/09 Making and amending local planning instruments (SG02/09) is included at attachment BJN-26 and outlines the process to be followed for a minor planning scheme amendment. Specifically, on page 8 of SG02/09, it is noted that a minor amendment to a planning scheme is an amendment that the "Minister is satisfied: (b) reflects a state planning policy, or part of a state planning policy", noting that consultation has been undertaken on the draft Part 1 Guidelines by the Authority.
- 232. Council's may also continue to use the floodplain overlay area to inform the development of their new Sustainable Planning Act 2009 planning scheme. Council's will be able to use Part 2 guideline once its completed to help inform this process.

#### Goondiwindi Case Study

233. An example as to how this toolkit would be applied by a Council is outlined below. Goondiwindi Regional Council is used as an example. Goondiwindi Regional Council currently operates three existing planning schemes:

- 1) Goondiwindi
- 2) Waggamba
- 3) Inglewood

In the case of all three planning schemes, only the bushfire and landslide components of the State Planning Policy 1/03 - Mitigating the Adverse Impacts of Flood, Bushfire and Landslide are currently reflected within the existing schemes.

- 234. An example process for adoption of the IFAO within the Goondiwindi Planning Scheme is outlined below:
- 235. Based on the steps outlined in paragraph 229 above and knowing that the Council has valuable local knowledge and extensive existing flood studies, the Council would be encouraged to refine the mapping using the digital datasets provided by DERM. Examples of the images available from previous flooding events in Goondiwindi which may be used by Council in the refinement process are included at attachment BJN-27. Specifically, the images identify widespread flooding in and around Goondiwindi in 1956, 1976 and 1983. Council would have regard to the levee built after these flooding events in this refinement process.
  - a) Once the mapping is reviewed, Council could then resolve to:
    - 1) Adopt model code as provided by the Authority in the Part 1 Guideline and adopt locally amended floodplain mapping as a new part within the existing planning scheme;
    - 2) Make a minor scheme amendment to the Goondiwindi Planning Scheme to include:
      - i. PART 6 Floodplain Assessment Overlay Code (new); and
      - ii. SHEET 5 Floodplain Overlay Assessment Area (new Land Characteristics Map);
    - Designate the mapped area as the Natural Hazard Management Area (Flood) under the Temporary State Planning Policy 2/11; and
    - 4) Adopt a flood level based on existing flood studies or based on historical flood data. In the event that Council were to adopt a flood level based on historical flood data, it is noted that the Goondiwindi gauge has recorded 82 major flood peaks (greater than 8.5m) since 1886 and 18 floods in excess of 10m with the highest recorded at 10.64m. If this level was adopted as the flood level for Goondiwindi plus a 300mm freeboard, the Council may consider adopting a flood level based on historic data of 10.94m, although this will be a matter for Council having regard to the protection provided by the levee.
  - b) The minor scheme amendment package is forwarded to the Department of Local Government and Planning for Ministerial consideration.
  - c) As the minor scheme amendment package includes a refinement to the Authority mapping, the amendment package is forwarded from DLGP to the Authority for review.
- 236. A similar streamlined approach could be adopted for the Waggamba and Inglewood Planning Schemes. The same approach could also be adopted in any other local government area.
- 237. Other matters of relevance to the Goondiwindi Regional Council include cross border floodplain management issues. Included at attachment BJN-28 is an image of the 2010/11 flood event at Goondiwindi. Also included at attachment BJN-28 is a letter from the Goondiwindi Regional Council to the Authority dated 22 June 2011 requesting assistance from the Authority in reviewing a development

proposal within the Moree Plains Shire Council area on the opposite side of the MacIntyre River. Included with the Council letter is a report from the Council meeting dated 22 June 2011 and a copy of a report from *Cardno Lawson Treloar* dated 4 April 2011 providing a flooding assessment of the proposed development. Council raised significant concerns with the proposed development and sought assistance from the Authority to manage any cross border issues. Included at attachment BJN-29 are letters dated 25 August 2011 to the New South Wales Department of Planning and Infrastructure and to Mr Peter Stewart, Chief Executive Officer, Goondiwindi Regional Council outlining the assistance provided by the Authority to Council in managing this cross border issue.

#### Interim Floodplain Assessment Overlay Mapping

- 238. Part 1 of the Authority's draft Guideline "Planning for stronger, more resilient floodplains" provides Councils with a toolkit enabling the adoption of interim measures to support floodplain management in existing planning schemes. A key component of the toolkit is a state wide mapping product.
- 239. Based on the early findings of the review of local government planning schemes (refer to attachment BJN-13 in exhibit 538), the Authority approached the Department of Environment and Resource Management (DERM) in late May 2011 seeking advice as to whether a state wide layer of flood mapping was available and if not, whether a state wide layer of flood mapping could be developed. DERM officers advised the Authority at this time that an existing state wide layer of flood mapping was not available.
- 240. In early June 2011, a number of follow up meetings were held between the Authority and DERM to develop a mapping product that would be of assistance in raising awareness and improving floodplain management across Queensland through the land use planning process. More specifically, the mapping product would need to be suitable for inclusion as a planning assessment overlay to trigger consideration of assessment for a development application. DERM's initial advice was that a state wide dataset did not exist.
- 241. The Authority then worked in partnership with DERM to identify a methodology and scope to create suitable mapping across Queensland (excluding the metropolitan and urban areas where existing high quality flood mapping was available).
- 242. The Authority specified that the product would need to be made available within a short period of time and would have to be produced at a scale where it could be related to cadastral boundaries (ie land parcels) sourced from the digital cadastral database (DCDB). The latter would allow the location of development applications referenced by a 'lot / plan' or street address to be determined with respect to the mapping.
- 243. The mapping developed by DERM under the direction of the Authority is not intended to replace existing flood studies, nor where high resolution mapping has been completed. Instead it is intended to complement areas where there are no studies or mapping or gaps between areas that are currently mapped.
- 244. The following principles were agreed between the Authority and DERM in developing the mapping product:
  - suitability for a state-wide approach;
  - a consistent approach;

- a repeatable approach if more accurate data is available in the future;
- evidential and justifiable.
- 245. Workshops were conducted between the Authority and DERM staff to develop a potential methodology based on the above criteria. A pilot area in the Dawson River sub basin was chosen to test a preferred approach. The data sets relied upon for the trial mapping were derived from datasets with existing state wide or close to state wide coverage. Results from the pilot in the Dawson River sub basin were reviewed and verbally validated by local government staff from Banana Shire Council.
- 246. As described in paragraph 124 of exhibit 538, some of the context and findings of the Authority through this information gathering on Australia's river systems were:
  - In Australia, there are 12 drainage divisions nationally;
  - Queensland hosts 5 (40%) of these drainage divisions either in part of full. These include:
    - Northeast Coast
    - Gulf of Carpentaria
    - Murray Darling
    - Bulloo Bancannia
    - Lake Eyre
  - Each drainage division contains a number of river basins. Within Queensland, there are 75 river basins;
  - Each river basin is then divided into a number of sub basins or more commonly known as catchments. In Queensland there are 129 sub basins (or catchments). At paragraph 125 of exhibit 538, I noted that there were 128 sub basins in Queensland. This reference did not include reference to miscellaneous other islands which are not intended to be mapped as part of this project;

Importantly, this exercise demonstrated that not one drainage division, river basin or sub basin (catchment) correlated with any administrative boundary whether it is a State or local government area.

- 247. Noting the comments above, there were several important requirements that emerged from the Dawson River sub basin trial:
  - the mapping would be conducted on river sub basin units (rather than LGA's or standard series mapping units);
  - whole sub basins would be completed where possible;
  - prioritisation of the sub basins would be undertaken by the Authority (based primarily on population and availability of existing flood mapping);
  - an interactive, on-line mapping tool as well as hard copy map books would be outputs; and
  - the process will provide transparency (all inputs would be made available to LGA's) and the mapping would allow for community feedback.
- 248. The resources for the mapping work would need to be found from within DERM's existing capabilities (there were no new funds or resources). The Authority would be responsible for developing the interactive mapping tool and printing arrangements for the map books.
- 249. The Authority requested DERM to complete the first 24 sub basins by end of July 2011, a period of 5 weeks. Attachment BJN-26 provides an overview and current status on the various phases of the project. As at 19 October 2011, mapping for 63 sub basins has been completed. This represents an

area of approximately 40% of Queensland. Within these 63 sub basins, there have been more than 2500 map pages produced (A3 @1:50,000 scale) and 110,000km<sup>2</sup> identified as part of Interim Floodplain Assessment Overlay area (IFAO). This mapping combined with existing high quality flood mapping already existing represents flood / floodplain mapping for 90% of Queensland's population.

250. With the completion of each sub basin, DERM provide the following products to the Authority:

- a digital dataset of the Interim Floodplain Assessment Overlay in a format suitable for use in a geographic information system (GIS);
- a Map book (a series of A3 map sheets covering sub basins) in electronic format suitable for both printing and display on the Authority website; and
- overall sub basin map.
- 251. The proposed schedule for the mapping of each sub basin is included at attachment BJN-30. Specifically, the schedule identifies 3 phases based on priorities determined by the Authority. As at 19 October 2011, Phase 1 and 2 are complete. These phases were determined by the Authority based on those planning schemes not appropriately reflecting SPP1/03 (flood) having regard to population per sub basin area.

#### Scale

- 252. Each Map book has been produced at a 1:50,000 scale to allow the cadastre to be identifiable so that individual properties or parts of properties can be determined as being located either partly or wholly within the IFAO.
- 253. The boundary of the IFAO has been identified as a dashed line, indicating that it is approximate, rather than absolute, limited by the methodology used and datasets available. The dashed line was intentionally chosen as it was acknowledged that local verification was required and that more detailed information at a local level may be available that could inform the overlay area.
- 254. Various datasets that have been used in the process have differing scale dependability. For example drainage data 1:100,000, satellite imagery 1:100,000 and aerial photography 1:10,000. Whilst it is acknowledged that scale dependability of the differing datasets varies, the verification by local governments will assist in confirming the extent and accuracy of the IFAO.

## Methodology

- 255. The IFAO was derived from overlaying available state wide spatial data. As stated in the draft Part 1 Guideline, DERM utilised a range of datasets to inform staff (the majority with more than 30 years cartographic and / or scientific experience), who through a visual interpretation determined the spatial extent of the IFAO. The metadata of the individual datasets describes the characteristics of each dataset, including its lineage, while the draft Guideline contains a summary of the dataset characteristics.
- 256. The methodology and data used by the DERM officers in the identification of the IFAO includes the following:
  - a) Select the drainage sub basin to be mapped
    - i. Identify the sub basin boundary from the state wide drainage basin data set.

- b) Display satellite imagery as a backdrop
  - i. The best available satellite imagery typically will be Landsat 5 or Spot. This imagery has a 30 metre pixel resolution.
  - ii. Where aerial photography was captured during the floods of 2010/11, this imagery can be used to assist in the delineation of the interim floodplain area.
  - c) Overlay dataset showing town locations
    - i. This dataset comprises towns which have a history of flooding in Queensland or at possible risk of flooding due to proximity to drainage network. These towns have been identified by the Bureau of Meteorology.

# d) Overlay the Strahler ordered drainage data where it is available

- i. This data set has a standard drainage classification system to determine drainage hierarchy so as to provide a consistency across all basins.
- ii. This data set is the best available drainage location information (eg 1:100,000). Positional accuracy of this data is 1mm at map scale (eg 100m +/- at 1:100,000 scale).
- iii. This data is only available in the North East Coast and Murray Darling Drainage divisions. For areas outside these drainage divisions, data captured from mapping at 1:250,000 has been used.

Starting from the headwater, the stream is assigned number 1 and is classified as a 1<sup>st</sup> order stream using the *Strahler ordered drainage* method. As several 1<sup>st</sup> order streams converge, the resultant stream becomes a 2<sup>nd</sup> order stream. Two 2<sup>nd</sup> order streams converge to form a 3<sup>rd</sup> order stream etc. The number of orders in Queensland's sub basins varies. The Dawson River sub basin for example is classified to 9<sup>th</sup> order. A diagram illustrating the operation of the Strahler method of stream classification is included at page 10 of attachment BJN-10 in exhibit 538.

#### e) Overlay natural resource data sets

i. .

- i. Floodplain data set a dataset that combines Pre-clear Vegetation Mapping of Landzone 3 (Alluvium), Landzone 1 (Estuarine) and the SALI (Soil Flooding Limitation Mapping) data base. This dataset shows where these natural environment characteristics exist, and like the ordered drainage, was developed for mapping at 1:100,000.
- f) Determine the drainage lines that need to be mapped as a minimum
  - Given the nature of the mapping, it was determined not to map the headwater streams (eg. Stream order 1, 2, etc), unless known flooding events had occurred. The drainage orders to be used needed to be determined for each sub basin, as smaller coastal sub basins may only have had 4<sup>th</sup> or 5<sup>th</sup> order streams, compared to the Dawson River sub basin which is classified to 9<sup>th</sup> order. In all cases, 1<sup>st</sup> order streams have not been mapped, and generally 2<sup>nd</sup> order streams order streams have not been mapped either.

The basis for determining which stream orders were mapped and which weren't in each sub basin was generally as follows:

• 1<sup>st</sup> and 2<sup>nd</sup> order streams were generally removed so as to eliminate the gullies in the headwaters of the streams. In locations where known flooding of towns in 2010/11

occurred, 2<sup>nd</sup> order streams were investigated to determine if mapping was necessary;

- A determination of the ordered streams to be used was made in consideration of the soils layer and the topology of the area; and
- Different stream order levels applied between sub basins across the state as the level of stream ordering system varied within different sub basins. Not all sub basins have up to 9<sup>th</sup> order – e.g. Moonie drainage basin has stream ordering only up to 5<sup>th</sup> order whereas Border Rivers sub basin has stream ordering up to 9<sup>th</sup> order due its size and complexity.
- g) Overlay contour data
  - Typically 10 metre contours will be used (so as to be able to provide state wide coverage). Horizontal contour accuracy is +/- half a contour interval relevant to gradient at any given location.
  - Where available additional more accurate data was used (eg. for example contours captured from LIDAR technology were used in coastal areas where available. This data has an accuracy of +/- 0.25m).
- h) Overlay gauging stations data
  - i. Gauging stations were identified and their positions were included within the interim floodplain area. The usefulness of gauging stations was related to the immediate vicinity of the gauging station and also to the age of the gauging station and the records available. In the case of the Dawson River sub basin, one station has existed since 1911, while another has only existed since 2005.
  - ii. The use of gauging stations provides another method of obtaining information about areas that could be subject to flooding. The DERM website (www.watermonitoring.derm.qld.gov.au) provides detailed information on gauging stations including the zero gauge elevation and the maximum gauge level.
- i) Overlay flood lines over towns of actual events from 2011
  - i. Ensure that the IFAO includes these flood lines where the information is available.
- j) Where other datasets exist and can aid visual interpretation, they can be used
  - i. Datasets that provide evidence of historical flooding.
  - ii. Historical media reports searched on the web have provided documented information and visual information (photographs).

In many parts of Queensland, an analysis of satellite imagery existed for the 2010/2011 events, which identified areas where water was standing or where reflective characteristics of the soil identified soil moisture. In most cases the analysis from satellite imagery exceeded the area mapped based on more accurate information.

- k) Identify the IFAO line
  - i. Using the gauging stations data above and actual events as a guide, along with visual interpretation of the imagery and other layers, the boundary of the IFAO is determined by the professional cartographers.

Through visual interpretation and spatial skills, the IFAO is extended through locations where detailed information exists (eg. actual flooding derived from aerial photography,

gauging stations), recognising that the sub basin progressively lowers in elevation as it heads towards the mouth of the river.

The visual interpretation to create the IFAO is critical, as relying wholly on individual datasets would have included areas where flooding is unlikely to occur. In figure 8 of the Dawson River sub basin example outlined below, the two circled areas show examples of increasing elevation, where one is covered by the 2010/2011 event as recorded from satellite analysis and the other compiled from soil information. These discrepancies are expected due to the lineage of the datasets. A visual inspection of all data sets assists in removing these anomalies.

In the Dawson River sub basin example outlined below, information still subject to validation indicates a maximum gauge level of 10.43 metres at 7pm on Wednesday 29 December 2010 at Taroom, resulting in the peak height of 191.25 metres AHD. The final step of visual interpretation allowed for known events and dataset limitations to be considered in the placement of the IFAO.

- 257. The methodology did not take into account man-made structures (eg. levees), as no state wide dataset exists, and secondly, the land contained within levee areas are part of the floodplain, meaning they could in the future flood again if circumstances prevailed (ie levee failure or flooding height greater than levee height).
- 258. The purpose of the IFAO mapping is to identify a spatial extent to trigger development application considerations by those Council's without flood mapping in their existing planning schemes. Examples of how the toolkit may be utilised for the purpose of considering development applications is included at pages 20 and 21 of the draft Part 1 Guideline (attachment BJN-10 of exhibit 538).
- 259. This methodology for determining the IFAO allows in the future the use of better quality data or additional data to be included to improve the mapping of the floodplain area.

#### Dawson River sub basin

- 260. The following example outlines the approach taken in identifying the IFAO for the Dawson River sub basin which was also the pilot for this project.
- 261. The Dawson River sub basin covers 50,903 square kilometres. The area identified as part of the IFAO is 4,849 square kilometres, representing approximately 9.5% of the sub basin. Figures 1 to 10 below outline the methodology and data used in determining the Dawson River sub basin. As shown in Figure 10, a total of 136, A3 maps at 1:50,000 scale have been produced to cover the interim floodplain area.
- 262. Figure 1 shows the Dawson River sub basin boundary overlaid on Spot imagery.
- 263. Figure 2 shows the Dawson River sub basin with drainage layer. The complexity of the drainage pattern over the basin is evident, with lighter colours commencing at stream order 1 and moving through to dark blue as the order increases.
- 264. Figure 3 shows the Dawson River sub basin overlaid with floodplain dataset generated from soil and vegetation information.

- 265. Figure 4 is located at Taroom. The red drainage lines represent stream orders 1-4 which were not mapped for the Dawson River sub basin. Drainage lines 5-9 were determined to be the priority to map. The location of the gauging station at Taroom is shown.
- 266. Figure 5 shows an extract from the DERM water monitoring site showing the zero gauge at Taroom to be 180.82 metres AHD with a maximum gauge level of 6.62 metres on 24 April 1989, resulting in peak height of 187.44 metres AHD.
- 267. Figure 6 identifies a dark blue area which has been derived from mapping of the 2010/2011 event from aerial photography, while the light blue area is derived from analysis of satellite imagery for the same event.
- 268. Figure 7 identifies the Interim Floodplain Assessment Overlay developed by visual interpretation of multiple data sources using contours to guide location of the interim floodplain area. As the drainage sub basin reduces elevation, adjustments are made to the boundary of the IFAO to reflect the reducing elevation.
- 269. Figure 8 identifies how the IFAO has taken into account the variability of datasets. The two circled areas show areas of increasing elevations which would not be part of floodplain and which have been excluded.
- 270. Figure 9 shows Taroom where the maximum official gauged height was 187.44 metres AHD, with the un-validated 2010 event being 191.25 metres AHD. In this case, the gauge was established in 1911 and the maximum official gauge height was recorded in 1989. The IFAO is mapped slightly higher than 190 metres AHD near the gauge station.
- 271. Figure 10 shows the Dawson River sub basin showing the IFAO and A3 map sheets produced for the sub basin.
- 272. Included at attachment BJN-31 is the Dawson River sub basin mapbook. Any other of the 62 sub basin mapbooks available as at 19 October 2011 can be provided to the Floods Commission of Inquiry upon request.



FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4

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FIGURE 5

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**FIGURE 6** 



FIGURE 7



FIGURE 8



FIGURE 9



FIGURE 10

#### Goondiwindi – MacIntyre and Weir River sub basin

- 273. The town of Goondiwindi is located in the MacIntyre and Weir River sub basin. The creation of the IFAO has been completed for this sub basin. The overlay covers not only the town areas, but the areas between towns.
- 274. In the case of the Goondiwindi town area, there were six relevant datasets relied upon in the identification of the IFAO:
  - Imagery Satellite (Landsat and SPOT) and aerial photography over the town during 2011 events;
  - Actual observed flood line from aerial photography;
  - Flood line derived from satellite imagery;
  - Floodplain dataset identifying areas that indicate alluvial systems, estuarine and marine deposits;
  - State wide 10 metre contour; and
  - Gauging stations.
- 275. The first observation is that the land surrounding Goondiwindi is very flat, with no 10 metre contours occurring throughout the township of Goondiwindi (see figure 11). The gauging station 416201 records (<u>http://watermonitoring.derm.qld.gov.au/host.htm</u>) indicate that the zero gauge level is 207.577 metres AHD. There is no 210 metre AHD contour through the township. As outlined in the methodology detailed in paragraph 257, levee banks were not considered as there is no state wide dataset, and this was not considered part of the state wide methodology, but should be considered by the local government as part of the local verification process.
- 276. It is noted that the township of Goondiwindi did not flood during the 2010/11 events as a result of protection afforded to the town by the levee. Figure 12 shows where flooding did occur in the 2010/11 event, recognising the accuracy limitations of the different data sources. Figure 13 shows the floodplain dataset, demonstrating that the entire town of Goondiwindi is covered by alluvial systems. The flooding depicted from satellite imagery and floodplain dataset showing alluvial systems datasets only covers areas in Queensland, and as such similar patterns may also exist in New South Wales.
- 277. The location of the IFAO (Figure 14) has been mapped having regard to the location of actual events, giving higher weighting to actual flooding mapped from aerial photography, and then through visual examination of the extent of flooding identified from satellite imagery, location of alluvial soils, observed cropping patterns and vegetation visible on imagery and where elevation starts to be meaningful, elevation information.
- 278. As proposed by the draft Part 1 Guideline and as outlined in paragraphs 233 to 237, it is expected that following review, the Goondiwindi Regional Council will have some additional data sets derived from flood studies or other historic information which can inform the further refinement of the IFAO.
- 279. The IFAO provides a significant benefit and first step for those Council's without detailed flood studies or mapping and for those parts of a local government area, where studies or mapping have not been previously completed. In the case of Goondiwindi Regional Council, there are parts of four river sub basins within the Goondiwindi Regional Council local government area including:
  - a) Macintyre and Weir River sub basin
  - b) Dumareq River sub basin
  - c) Macintyre Brook sub basin
  - d) Moonie River sub basin



FIGURE 11: Goondiwindi area showing imagery (satellite and aerial photography) with 10 metre contours and gauging station.



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FIGURE 12: Areas flooded in 2011 - Dark blue interpretation from aerial photography. Light blue is analysis from satellite imagery.





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FIGURE 14: Location of the IFAO boundary in relation to dataset inputs.

#### Chinchilla – Condamine River sub basin

- 280. The town of Chinchilla is located in the Condamine River sub basin. The creation of the IFAO has been completed for this sub basin. The overlay covers not only the town areas, but the areas between towns.
- 281. In the case of the Chinchilla town area, initially there were five relevant datasets relied upon in the identification of the IFAO:
  - Imagery Satellite (SPOT) and aerial photography over the town during 2011 events;
  - Flood line derived from satellite imagery;
  - Floodplain dataset identifying areas that indicate alluvial systems, estuarine and marine deposits;
  - State-wide 10 metre contour; and
  - Gauging stations.
- 282. Subsequent to the production of initial IFAO, an observed flood line from aerial photography became available.
- 283. Figure 15 shows that the IFAO boundary aligns closely with the 310 metre AHD contour in the north east corner and then transitions to be slightly higher than the 300 metre AHD contour downstream of the gauging station (refer to circles on Figure 15). This is consistent with the actual measured values at gauging station 422343A which shows an un-validated height of 302.074 metres AHD on 13 January 2011.
- 284. Figure 16 shows the alignment in many areas of the alluvial system and the flood event as determined from satellite imagery. The IFAO in the area surrounding Chinchilla has been based significantly on the flooding as observed from the satellite imagery, with adjustments taking into account information visible from the imagery and other data sources.
- 285. Figure 17 shows the location of the revised IFAO derived following the receipt of aerial photography. This is an example of the ongoing refinement to this interim line as better and more accurate data becomes available.
- 286. Figure 18 shows the location of the revised IFAO in relation to the actual flooding as recorded from aerial photography. The location of the revised IFAO has been adjusted to reflect the actual areas flooded and further visual interpretation of the imagery, whilst remaining at an elevation of between 300 and 310 metres AHD throughout Chinchilla. Consistent with the methodology, areas identified as flooded from aerial photography are within IFAO.
- 287. This approach of modifying the IFAO following the receipt of improved quality data is consistent with the principles under which it was developed, namely repeatable if more accurate data is available in the future. Further improvements will continue to be possible when more accurate contour information is available, showing how the landform changes as it moves away from the watercourse.
- 288. The IFAO provides a significant benefit and first step for those Council's without detailed flood studies or mapping and for those parts of a local government area, where studies or mapping have not been previously completed. In the case of Western Downs Regional Council, there are parts of six river sub basins within the Western Downs Regional Council local government area including:
  - a) Dawson River sub basin
  - c) Macintyre and Weir River sub basin
  - e) Boyne and Auburn River sub basin
- b) Moonie River sub basin
- d) Balonne River sub basin
- f) Condamine River sub basin



FIGURE 15: Location of IFAO in relation to contours



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FIGURE 17: Location of the flood extent as derived from aerial photography compared to original IFAO.


FIGURE 18: Location of revised IFAO following review of flood extent from aerial photography.

#### Emerald - Nogoa River sub basin

- 289. The town of Emerald is located in the Nogoa River sub basin. The creation of the IFAO has been completed for this sub basin. The overlay covers not only the town areas, but the areas between towns.
- 290. In the case of the Emerald town area, there are five relevant datasets that were relied upon in the identification of the IFAO:
  - Imagery Satellite and aerial photography over the town during 2010/2011 events;
  - Actual observed flood line as received from Central Highlands Regional Council;
  - Flood line derived from satellite imagery;
  - Floodplain dataset identifying areas that indicate alluvial systems, estuarine and marine deposits; and
  - State wide 10 metre contour; and
  - There is no gauging station in the vicinity of the Emerald township (Refer to <u>http://watermonitoring.derm.qld.gov.au/host.htm</u>).
- 291. Figure 19 shows the actual flood extent exceeding the satellite analysis in some areas, yet inside the satellite analysed areas in other locations (refer red circles), it also shows the actual extent of flooding to be aligned to a changing elevation as the floodplain decreases in elevation. In the red circle to the west, it shows actual flooding above 180 metres AHD, whereas in the red circle to the east, it shows flooding just exceeding 170 metres AHD.
- 292. Figure 20 shows the alluvial system coverage over the majority of Emerald.
- 293. The IFAO in this section of the river sub basin has been primarily based on the contour line, reducing in elevation throughout the areas shown in the figures, ensuring that the line shown includes the areas that actually flooded. The green circle in the southwest corner of Figure 19 shows the estimated location of the IFAO to approximate the 180 metre AHD contour while the green circle in the east approximates 175 metres AHD.
- 294. As the draft Part 1 Guideline indicates, it would be expected that the Central Highlands Regional Council may modify the IFAO taking into account previously undertaken flood studies and local knowledge. The Central Highlands Regional Council is likely to significantly benefit from the IFAO mapping and toolkit for those parts of the Council area where no previous studies have been undertaken. In the case of Central Highlands Regional Council, there are parts of six river sub basins relevant to the local government area including:
  - a) Mackenzie River sub basin
  - c) Dawson River sub basin
  - e) Comet River sub basin

- b) Nogoa River sub basin
- d) Isaac River sub basin
- f) Fitzroy River sub basin



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#### Bundaberg - Lower Burnett River sub basin

- 295. The town of Bundaberg is located in the Lower Burnett River sub basin. The creation of the IFAO has been completed for this sub basin. The overlay covers not only the town areas, but the areas between towns.
- 296. In the case of the Bundaberg town area, there are five relevant datasets that were relied upon in the identification of the IFAO:
  - Imagery Satellite and aerial photography over the town during 2010/2011 events;
  - Approximate flood line from intersection of mathematical models using high precision elevation data (pre flood), observed flood levels with co-ordinates and drainage patterns;
  - Floodplain dataset identifying areas that indicate alluvial systems, estuarine and marine deposits;
  - State wide 10 metre contour; and
  - There is no gauging station in the vicinity of the Bundaberg township (Refer to <u>http://watermonitoring.derm.qld.gov.au/host.htm</u>).
- 297. In this area of the Lower Burnett River sub basin, the location of the IFAO has been located using the approximate flood line given the modelling work undertaken (Figure 21). The location corresponds to the 10 metre AHD contour line in the western part of Figure 21 and shows it reducing to lower elevation levels in the north (refer red circles). The location of the IFAO line in this flat coastal urban area will benefit from analysis using elevation data with greater accuracy than 10 metre contours which is currently available to Bundaberg Regional Council and which will be valuable in the local government verification process.
- 298. The floodplain dataset covers extensive areas as would be expected, due to the flatness of the area.
- 299. Information obtained indicated that the highest recorded flood level for Bundaberg was 9.04m AHD in January 1890 with a major peak for Bundaberg occurring on 30 December 2010 at 7.92 metres AHD. This historical information supports the estimate that the IFAO location in this area is adjacent to the 10 metre AHD contour.
- 300. As the draft Part 1 Guideline indicates, it would be expected that the Bundaberg Regional Council would modify the IFAO in this case taking into account previously undertaken flood studies and detailed mapping that already exists for the former Bundaberg City Council area. The Bundaberg Regional Council is likely to significantly benefit from the IFAO mapping and toolkit for those parts of the Council area where no previous studies or mapping have been completed. Specifically, there is only limited mapping available for the Burnett and Isis planning scheme areas and no mapping available for the Kolan planning scheme area. There are parts of seven river sub basins relevant to the Bundaberg Regional Council local government area including:
  - a) Kolan River sub basin
  - c) Elliot River sub basin
  - e) Isis River sub basin
  - g) Baffle Creek sub basin

- b) Lower Burnett River sub basin
- d) Gregory River sub basin
- f) Burrum River sub basin



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#### Planning for stronger, more resilient Electrical Infrastructure

301. Included at attachment BJN-32 is a copy of the final Guideline entitled "Planning for stronger, more resilient Electrical Infrastructure" released on 10 October 2011.

I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the Oaths Act 1867.

Signed . .

Taken and declared before me, at Brisbane this 21st day of October 2011



# Planning for a stronger, more resilient Grantham

#### Lockyer Valley Regional Council 23 March 2011

Brendan Nelson, General Manager Land Use Planning



# Council's Community Recovery Plan

- A strong, safe, healthy, self sufficient and responsible community
- The Lockyer Valley is the region of choice for vibrant rural living
- · Bringing the Lockyer Valley together as one
- · A compassionate and caring community
- Modern, robust infrastructure
- · Comprehensive, whole of region mobile phone coverage
- · A disaster warning system for the Lockyer Valley
- Significant infrastructure vital to grow our regional economy
- Asustainable food bowl for Australia
- Astrong resilient Lockyer Valley Regional Council organisation





### Key land use tasks from Council's Community Recovery Plan

Investigate and resolve planning and building issues that will have an impact on refurbishment of existing and construction of new housing in flood affected areas. Provide advice to all affected property owners.	April 2011	Director Planning, Building & Environment Services
Investigate sites at Grantham and other affected communities for safe rebuilding, in conjunction with the Queensland Reconstruction Authority.	From March 2011	Director Planning, Building and Environment Services



## Community Consultation to date

Council's One-on-One interviews with residents

- ➢ 92 completed
- Over 60% expressed interest in land swap

Visionary Workshop – Saturday 19 March

- What do we want to keep?
- What don't we want to keep?
- What does the future Grantham look like?

Vision Confirmation – Wednesday 23 March

Master Plan Presentation – Saturday 26 March





#### Land use considerations for Grantham:-

- Relocation of residents to higher ground (*immediate need*)
- Re-establishment of essential services shop, petrol station and hotel (*immediate need*)
- Memorial/ Community Centres (*medium need*)
- Sewer the town (*medium long term need*)
- Showgrounds (*long term need*)

To support this process, Council is preparing a Master Plan responding to Community aspirations



#### **Queensland Reconstruction Authority**





#### **Relocation of residents to higher ground (immediate)**





### **Options to support Council's master plan**





The Act enables the Minister to:

- declare a project for proposed development to be a declared project if the project is to be undertaken in a part of the State that has been directly or indirectly affected by a disaster event, and the declaration is necessary to facilitate flood mitigation or the protection, rebuilding and recovery of affected communities;
- recommend to the Governor in Council that a regulation declare a part of the State to be a **reconstruction area**;
- declare a declared project or particular development in a reconstruction area to be a critical infrastructure project if it is critical or essential for the State or for economic, environmental or social reasons. A critical infrastructure project declaration is not subject to judicial review.







### Potential Reconstruction Area

Draft Declaration of a Reconstruction Area



#### Process for declaration – s43 of QldRAA

- Board of Management makes recommendation to Minister for declaration of reconstruction area.
- A regulation (a *declaration regulation*) may declare a part of the State to be a reconstruction area.
- The Minister recommends to Governor in Council the declaration of a reconstruction area by regulation having been satisfied that:-

(a) the part of the State has been directly or indirectly affected by a disaster event; and

(b) the declaration is necessary to facilitate flood mitigation for affected communities, or the protection, rebuilding and recovery of affected communities.

• The Minister may make the declaration on the Minister's own initiative or at the request of a local government.



#### **Development Scheme – s62 of QldRAA**

If a regulation is made by the Governor in Council for a Reconstruction Area, the Authority may make a **Development Scheme** for a reconstruction area or part of the reconstruction area.

The Development Scheme must include a:-

- Land use plan regulating development in the area;
- Infrastructure plan; and
- **Implementation strategy** to achieve the reconstruction functions of the authority to the extent not able to be achieved under the land use plan or the infrastructure plan.

The Development Scheme is required to undergo a period of formal public consultation for a minimum of 30 business days in addition to the consultation currently being undertaken by Council as part of the development of the Master Plan.



#### **Development Scheme**

Land use plan – similar to a Local Plan that would be prepared to translate into the QPP Planning Scheme for Lockyer Valley including tables of assessment

**Infrastructure plan** – supporting the land use plan with specific details relating to water, stormwater, electricity and sewer

**Implementation strategy** - a staging plan to support the implementation of the landuse plan and the infrastructure plan.

Urban Designers – preparation of base master plan Surveyor – on site survey work, plan of subdivision, plan sealing and registration Planner – land use plan (based of Master Plan), table of assessment Engineer – infrastructure plan – civil, sewer, water, stormwater Quantity Surveyor – detailed costings Legal – land transactions, construction contracts Development Manager - project management, development feasibility

**Utilise Donor Team – construction process** 



Key Consultants required:-

### **Key questions for implementation**

- Who can relocate ie. just Grantham or Murphys Creek and Postmans Ridge residents as well?
- Sewer? What impact on rates?
- Land transactions in the interim There are currently 5 affected parcels for sale. If any of these are sold in the interim, will they be eligible for the transfer?
- Financial/ funding arrangements inc mortgages there are a number of financiers in the area.
- Lot Size/ Lot allocation ie. replicate the street ie. Citrus Street North, Gatton Helidon Road North etc? Will we keep the same lot size?
- Ability to take home to the new block for those structurally sound and residents wanting to take their home, include this option.



#### **Queensland Reconstruction Authority**





To implement the timely deliver of the community's master plan the following motion is requested from Council:-

"That Council resolve to request that the Premier and Minister for Reconstruction declare Grantham a reconstruction area in accordance with section 43 of the Queensland Reconstruction Authority Act 2011"



# **Rebuilding Grantham Together**

#### Proposed Development Scheme Grantham Reconstruction Area



Lockyer Valley Regional Council 10 May 2011



# Background – Process for declaration s43 of QldRA Act

- Board of Management makes recommendation to Minister for declaration of reconstruction area.
- A regulation (a *declaration regulation*) may declare a part of the State to be a reconstruction area.
- The Minister recommends to Governor in Council the declaration of a reconstruction area by regulation having been satisfied that:-

(a) the part of the State has been directly or indirectly affected by a disaster event; and
(b) the declaration is necessary to facilitate flood mitigation for affected communities, or the protection, rebuilding and recovery of affected communities.

 The Minister may make the declaration on the Minister's own initiative or at the <u>request of a local government.</u>





# Background -Declaration of Reconstruction Area

 On 8 April 2011, the *Queensland Reconstruction Authority Regulation 2011* was created which declared the Grantham Reconstruction Area





#### The Journey to Date





#### **Queensland Reconstruction Authority**



### Proposed Development Scheme prepared in accordance with QPP

Land use plan – similar to a Local Plan that would be prepared to translate into the QPP Planning Scheme for Lockyer Valley including tables of assessment

**Infrastructure plan** – supporting the land use plan with specific details relating to water, stormwater, electricity and sewer

**Implementation strategy** - supports the implementation of the land use plan and the infrastructure plan.



### Vision

It has been two years since the dreadful events of January 2011, and our community of Grantham has rebuilt itself in a way which shows great pride, strength and resilience, while staying true to our history and character and respecting those who suffered during those tragic events

• • • •

Grantham is an amazing place – we have endured tragedy and emerged stronger and prouder, with a wonderful mix of history and character and strong and vibrant new areas that are helping us achieve a safe and bright new future.



## Part A – Land Use Plan

Translation of community vision into a plan regulates development and states the preferred for of development for the Reconstruction Area.





#### Land Use Plan – Council Land





### **Local Centre**

Local Centre Zone – The local centre is the community heart for Grantham focusing on Anzac Avenue. It will provide a vibrant market place featuring a mix of uses and activities:

✓ markets
✓ shops
✓ cafes
✓ service station
✓ arts and crafts
✓ art gallery
✓ museum
✓ hotel





### **Residential Living**

**Residential Living Zone** – Provides residential lots between 1000m<sup>2</sup> and 2000m<sup>2</sup>, sewered and connected to the town water supply.

✓ detached houses



RESIDENTIAL LIVING



### **Rural Residential**

**Rural Residential Zone** – Larger lots between 4,000m<sup>2</sup> and 10,000m<sup>2</sup> providing for a semirural lifestyle. Acts as a transitional zone between the new showground precinct, farming land and the residential living zoned lots. Not sewered but may be connected to the town water supply.

- ✓ detached houses
- ✓ some animal keeping



RURAL RESIDENTIAL



#### **Low Impact Industry**

**Low Impact Industry Zone –** Provides employment and service and low impact industry uses.

- ✓ Vehicle repair workshop
- ✓ Rural industries
- ✓ showroom
- $\checkmark$  service station
- ✓ other services





# **Community Purposes**

**Community Precinct** - includes the Grantham State School, the community centre and utility installations.

**Showgrounds Precinct** - caters for a broad range of events, including large agricultural and industry shows. Subject to future Council master planning.

**Parkside Precinct** – caters for uses which are complimentary to the recreation and open space zone and may include education facilities, child care or retirement facilities.




# **Recreation and Open Space**

### **Recreation and Open Space Zone**

 Provides for a range of parks and open space, used for a variety of recreation and sporting activities.

- ✓ sporting fields
- ✓ playgrounds
- ✓ picnic areas/ shelters
- ✓ BBQ and picnic facilities
- ✓ clubhouses
- ✓ walking and cycling tracks
- ✓ skate park





# Limited Development (Constrained Land)

Limited Development (Constrained Land) Zone – Provides a range of low key industries which are agricultural in nature and compatible with the remaining residential uses. Continues to contain some houses although not preferred. New houses to be built above flood levels. Amalgamation of lots is encouraged.

- ✓ detached houses
- ✓ flower farms
- ✓ plant nurseries
- ✓ turf farming
- ✓ garden supplies
- ✓ equine uses
- ✓ roadside stalls
- ✓ other agricultural activities.





# Rural

**Rural Zone** - allows for continued farming and for productive use of good quality agricultural land

- ✓ cropping
- $\checkmark$  animal keeping
- $\checkmark$  detached houses
- $\checkmark$  other rural activities





### **Queensland Reconstruction Authority**

# Part B - Infrastructure Plan



 Image: state stat

Details the infrastructure necessary to support the land use plan.

- •Roads
- •Water Supply
- •Sewerage
- •Stormwater
- •Parks
- •Electricity
- •Telecommunications
- •Community facilities







## **Infrastructure Plan - Roads**





# **Infrastructure Plan – Stormwater**





# **Infrastructure Plan – Water Supply**





# **Infrastructure Plan - Sewer**





# **Part C - Implementation Strategy**

- Required to achieve the main purposes of the QldRA Act for the Grantham Reconstruction Area, to the extent that they are not achieved by the land use plan or infrastructure plan.
- The implementation strategy focuses on the following:
  - facilitation of Council's land swap program for displaced residents
  - fulfilling the vision for the Grantham community, particularly in the initial 2 year period to meet many of the critical reconstruction needs, which are likely to occur mainly with the construction of the first stage of new development by mid 2011
  - recognising that any changes to circumstances can be reflected in a revised master plan through future reviews of Council's Planning Scheme
  - facilitation of Council's land swap program and the costs associated with the program, including sufficient additional development to cover these costs
  - removal of regulatory hurdles and ensuring flexibility is provided in the final development form.



# **Community Consultation Strategy**

The community consultation strategy for the proposed Development Scheme will adopt the following consultation methods:

- Community consultation sessions
- Electronic viewing
- Hard copy viewings
- Submissions
- FAQs





# Upcoming key dates...

Key Task	Timeframe
Submission period	11 May 2011 - 23 June 2011
Submission to Cabinet	Tuesday 5 July 2011
Governor in Council's approval	Thursday 7 July 2011
Government Gazette	Friday 8 July 2011
Commencement of construction (* - earthworks may commence earlier with TLPI)	July 2011 *





### ORDINARY COUNCIL MEETING MINUTES 23 MARCH 2011

Item Number:10.4File Number:1.1/17/10Councillor:Cr Steve JonesSUBJECT:OPEN SESSION

THAT Council move into Open Session.

Moved By: Cr McDonald Seconded By: Cr Moon Resolution Number: 1999

#### CARRIED 7/0

#### 11.0 CONFIDENTIAL ITEMS

ITEM NO:11.1FILE NO:17 March 2011DATE:17 March 2011TOPIC:QUEENSLAND RECONSTRUCTION AUTHORITYAUTHOR:Ian FlintAUTHOR'S TITLE:Chief Executive Officer

THAT in accordance with Section 72 (1) (h) of the Local Government (Operations) Regulations 2010, as the matter involves other business for which a public discussion would be likely to prejudice the interests of the local government or someone else, or enable a person to gain a financial advantage.

#### OFFICER'S RECOMMENDATION

That at 12 noon representatives from the Queensland Reconstruction Authority addressed Council in respect to the Strengthening of Grantham Project.

#### **RESOLUTION:**

That Council resolve to request that the Premier and Minister for Reconstruction declare Grantham a reconstruction area in accordance with section 43 of the Queensland Reconstruction Authority Act 2011;

And further;

That Council request that the Premier and Minister for Reconstruction declare a project supporting the temporary operation of the shop in accordance with section 42 of the Queensland Reconstruction Authority Act 2011.

Moved By: Cr McDonald

Seconded By: Cr Milligan



## **Grantham** Reconstruction 2011

Preliminary Masterplan - Stage 1 and 2 110207\_UD17B 1:5,000 @ A3 4 may2011

Lockyer Valley Regional Council

### **Preliminary Initial Relocation Stage Yield:**

17 X 1,000m² lots 15 X 2,000m² lots 38 x 4,000m² lots 9 x 10,000m² lots

Total = 79 lots





#### Stage 1, Land Swap and Ballot

The design of Stage 1 is set by the identified need for replacement lots to swap. This has been established by consultation with affected owners.

The Planning Regulation cannot compel sale of flood affected land to the Council. There are compulsory purchase powers for this available to local government. The formal requirement to "swap" land is appropriately addressed in concurrent contracts which would include both arrangements to purchase the new lot and arrangements to sell the flooded lot. This is a matter for the Council to address outside of the regulatory provisions.

Stage 1 makes provision for 81 lots. The demand for lots beyond early 2012 is unknown. Those who may, in the future, take up the ballot and the size of their parcels are both unknown at this time. Flexibility is required to continue to provide for land size equity for ongoing swap arrangements. In addition, it is likely that the new Showground will create a demand for larger Residential lots for people associated with rural and equestrian activities.

Council owns all of the land to be developed for "swap" lots. For Stage 1, a detailed management plan has been produced and is being advertised. There is a high degree of certainty about the mix of lot sizes for Stage 1 because residents from have already indicated their desire to participate in the land swap. This mix cannot be known much ahead of actual demand therefore a flexible arrangement is essential to ensure a suitable and timely outcome.

The development scheme provides for approximately 400 lots. The capacity of a sewerage treatment plant has not been addressed and flexibility is essential until short and longer term sewerage capacity is resolved.

To accommodate all of these factors, management regimes in addition to the proposed redevelopment scheme are required.

#### Local Centre Zone

Houses on non-flooded site will be exempt development. This is appropriate for the existing houses however this redevelopment scheme can only function where there is development. The existing development has established rights to remain and continue operation. Also, the regime of assessment for existing houses should allow additions, new garages and sheds and exempt development.

New detached houses on vacant sites in the Local Centre zone are an inconsistent form of development in the Local Centre Zone. The development is impact assessed and there should be a statement in the intent of the zone to confirm that the exempt development status applies to existing houses only.

The second paragraph of the intent for this zone refers to "habitable" floor levels. This will not allow enforcement of floor levels in non-habitable uses such as shops and food premises to be regulated. "Habitable" applies to residential activities only.

#### **Residential Zones and Precincts**

#### Need for more than one Zone

Stage 1 of the redevelopment is master planned and 81 lots are intended to be swapped for flooded home sites. The basis for the swap is that participants will receive lots about the same size as the flooded lots that they will transfer for the Council. The layout for subsequent stages cannot be designed until there is an indication of the likely participants in the subsequent stages of the land swap arrangement. These residents may come for Grantham, Murphy's Creek, Postman's Ridge, Helidon and Withcott.

A further consideration is the timely availability of sewerage services to the development area. The best way to manage these inherent uncertainties initially is to make provision for the residential area in one Zone. As the Council has demand for subsequent stages, these stages can also be the subject of a lot layout master plan, as well as the staged detail design plan for infrastructure. Approval of the plan as a prerequisite for subdivision of the stage is an appropriate way to manage lot layout and design.

The two zones and their precincts in the redevelopment plan reflect the mix of lot sizes in Stage 1. There is no way of knowing that this mix is appropriate for subsequent stages and flexibility is required to implement the agreed land swap program.

#### **Minimum Lot Sizes**

At 1,000 sq m, the minimum lot size for sewered residential lots is too large. It is not an economic form of development is major cities and is unlikely to be feasible at Grantham.

A 20 m frontage is relatively narrow for a 1,000 sq m lot. It gives a 1:5 frontage to depth ratio. I think that it is the width of the frontage that creates the open feel usually associated with larger lots. A 25 m frontage will give a 1:4 ratio (frontage to depth). Urban small lots are the only ones that I am familiar with that have a 1:4 ratio. For a larger urban lot, the shape is 1:2.5.

Decreasing the minimum lot size and retailing the 20m frontage will improve the shape of the residential lots.

Practically, lots need to be sufficiently wide to allow access to a large shed in the back yard to accommodate vehicles and equipment normally associated with residences in rural service centres.

#### **Dual Occupancy**

Dual Occupancy is an urban form of development. It should be deleted from this zone.

#### Reconfiguring a Lot provisions

The level of assessment table identifies Reconfiguration of a Lot (if not exempt) as Code assessable, however it also states *'ie Lots not complying with exempt criteria are compliance assessment'*. This needs to be clarified.

Reconfiguration subsequent to the initial development (ie not owned by Council) is not supported and should be Impact Assessable.

Differentiation of lot sizes by precinct adds complication. The requirement to require reconfiguration in accordance with a lot layout master plan will provide sufficient control.

Further, the exempt criteria should not differentiate between lots with an area of 1,000sq m and 2,000 sq m especially because the future mix of lots sizes is not known. The Exempt Development criteria for reconfiguration of a lot should be as follows:

- Lots have a minimum lot size of 1,000m2;
- Are owned by Council; and
- In accordance with the lot layout master plan and detailed design plan (for infrastructure) to be determined by Council.

A second minimum lot size is required for unsewered lots. This size is consistent with the planning scheme reconfiguration requirements for the Rural Residential zone.

These changes need to be incorporated into the Residential Living Code. The Code should also be clear that further subdivision of initial lots created is not envisaged.

#### Minimum size for unsewered lots

The dominating development factor for determining the area of unsewered residential lots is the suitability of the soil to absorb waste water on site, in the range of weather conditions that might be experienced. The Gatton Planning Scheme requires all rural residential lots to have a minimum lot size of 3,000m<sup>2</sup>. The Park Residential Zone (southern Gatton) has a minimum lot size of 1,000 sq m. Soil absorption capacity testing is essential for this specific area to be confident that environmental health standards are no compromised in the future. Testing will determine a locally suitable minimum lot size where sewerage is not available.

#### Low Impact Industry

One land owner is likely to establish a *"catering shop"* on a site in this zone. To facilitate this, the level of assessment should be changed from Impact assessment to Code assessment. IN the Gatton Shire Plannng Scheme, this use is assessable against The zone code and the

- Services and Infrastructure Code
- Advertising Device Code
- Building Work Code
- Landscaping Code
- Lighting Code
- Services and Infrastructure Code
- Vehicle Access, Parking and On-Site
- Movement Code

#### **Community Purposes Zone**

The Levels of Assessment Table requires exempt development to be in accordance with with any requirement from DTMR and DERM. This cannot be enforced if there is no requirement for an application for exempt development.

#### **Defined Flood Level**

Thorough out the Land Use Plan there are a variety terms and approaches used for flood level regulation. They include, *habitable floor level, defined flood event, habitable floor level 300mmm above the defined flood level.* 

The development scheme includes a significant factor of safety for development above the January 10 flood event. The development area is well defined and small. In these circumstances, a floor level expressed as a reduced level is appropriate. This same level can be applied to redevelopment of flooded premises when that is contemplated.

When the Council wide flood study is available for incorporation into the planning scheme, the controls for this particular area can be reviewed.

#### Limited Development Zone

The final paragraph in the Limited Development (constrained land) Zone suggests that it is possible for the redevelopment scheme to compel owners of this flooded land to offer it to the Council first. An intention to sell land is not "development" for the purposes of the *Sustainable Planning Act* so this idea is not enforceable through the planning regulation.

The application of the Limited Development Zone is awkward. It is trying to stop future residential development where a land swap occurs, and retain the right to rebuild (with floor level criteria) where the owners at 10 January want to rebuild. Specification of the flood level must be absolute for this exemption to apply. Consideration should also be given to the floor levels for sheds and garages on the exempt development sites. It is assumed that they are also required to be above the flood level.

The intention that amalgamated lots obtained by the land swap arrangement are used for agricultural purposes does not sit well with the State Planning Policy that seeks suitable buffers between agricultural uses and residential development.

#### Miscellaneous comments

#### Context

The time line is inappropriate as the Redevelopment scheme will not be finalised before the end of June.

#### Setback controls

These appear in the Zone codes. Are the setbacks measured to the outermost projection or to the external wall?

For the Local Centre zone the setbacks are mandatory, however for the Residential Living Zone, the setbacks should be a minimum, with larger setbacks also being an appropriate outcome.

Rural Residential Zone AO1.2 – lists the setbacks from boundaries for Rural Residential development. If this zone is retained, the outcomes apply to land and that is appropriate for adjoining or adjacent Residential Living, Local Centre and Community Use zones. Additional setback to the road frontage of 10 metres is more appropriate for other Rural Residential zones and the proposed showground.

Alternatively an outcome for setback to a road of 10 m in the showground precinct is a more appropriate way to manage amenity issues from the use causing them. Particular consideration needs to be given to the small site south of Bowtells Road.

Community Purposes Zone A1.2 – The setbacks specified are not consistent with the setbacks of existing development. More consistent setbacks are:

- (a) Street frontage opposite residential living or recreation and open space zone 0 3m,
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Low Impact Industry AO1.2 - The setback to the road could be 0m as for the Local Centre Zone. This will encourage rear parking and create a consistent streetscape.

#### Infrastructure required

The table on page 39 lists water supply and sewerage together, implying that there is an existing sewerage services in Grantham. This is incorrect. This same error appears in "Local Infrastructure, b." on the same page.

The table on page 40 lists infrastructure items; a description of the size of the infrastructure required; and the likely timing. At this time, a detailed design is available for Stage 1 and this review of the documentation reveals that some changes are required to the road layout. It is impossible to determine the future works with the level of accuracy implied by a list such as the one in this table given the land swap concept that underpins this redevelopment plan. Other than for Stage 1 and even for it, the value of the list in the table is questioned.

#### MAPS

#### Map 2 Land Use Plan

The location of the rail line crossing has changed. This will affect the final extent of the Low Impact Industry Zone. Once the alignment of the new road over the railway line is confirmed this can be finalised. Flexibility or a suitable notation is required to accommodate this.

#### Map 3 Land Use Plan - Insert A.

Bowtells Road east is designed to have no lots fronting that road. This is not what was intended. The village should not turn its back on the showground.

The lot mix in the area serviced by Streets "C", "F", "S", "H", "T" and "G" is not consistent with the current Master Plan.

The new park located on the northern side of Boxmoor Street is not shown and the road network in the area requires revision and updating as a result of the new park.

If the Rural Residential zone is retained, the maximum area in the legend needs to be altered to "10,000 sq m".

**Map A Roads** shows two changes in alignment for road "E". If these indicate traffic calming, then they should be indicated appropriately so that they are reflected in a subsequent staged detail design.

Bowtells Road is not shown on the north western boundary of the plan. It is required for access to the showground and therefore should be shown.

*Map B – Water supply* omits a reference to a reservoir.

*Map C Sewer* – shows the proposed location of the waste water treatment plant, however this location my change. A reference to a possible site may be more appropriate at this time.

**Map D** - **Stormwater Management** requires updating to reflect the road layout change in Stage 1 to accommodate the new park. As a consequence of redesign of the road layout, the stormwater layout in this area has changed.

#### **Implementation Strategy**

The land swap arrangements do not constitute "development" for the purposes of the Sustainable Planning act and are unable to be enforced through a planning regulation.



22 June 2011

Queensland Reconstruction Authority PO Box 15428 CITY EAST QLD 4002

Attention:

Dear Sir

#### Grantham Reconstruction Area - Proposed Development Scheme

#### Stage 1 - Land Swap and Ballot

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If the Rural Residential zone is retained, the maximum area in the legend needs to be altered to "10,00<u>0</u> sq m".

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7/8

Kockyer Valley

#### Implementation Strategy

The land swap arrangements do not constitute "development" for the purposes of the Sustainable Planning Act and are unable to be enforced through a planning regulation.

Yours faithfully

for IAN FLINT Chief Executive Officer

Zone / Locality	Minimum Lot Size (m <sup>2</sup> )	Minimum Frontage (other than at cul de sac ends) (m)	Minimum Development envelope Area (being above the Q100 level and < 15% slope)
Urban Residential – in Gatton town	600	18	15m x 15m
– <i>in</i> Withcott	3000	40	1,000m2 (min dimension 25 m)
– <i>in</i> Helidon	800	18	15m x 15m
Village	3,000	40	1,000m2 (min dimension 25 m)
Park Residential	3,000	40	1,000m2 (min dimension 25 m)
Rural Residential – - no town water	8,000	60	2,500m2 (min. dimension 40m )
- with town water	6,000	60	2,500m2 (min. dimension 40m )
Note: The regulatory provisions of the SEQ Regional PI an apply for applications outside the Urban F ootprint and R ural Li ving Ar ea. In these cases the mi nimum lot size is 100 he ctares, unless the subdivision meets an ex clusion documented in Division 3			
<ul> <li>Existing Rural Residential Precinct</li> </ul>	See Table 6.107.5 below		
– Homestead Precinct	8,000 where reticulated water is provided 1.2ha where reticulated water is not available		
Commercial	400	30	NA
Industry	2,000	40	NA
Open Space and Recreation	No nominated minimum	NA	NA
Community Facilities	No nominated minimum	NA	NA
Rural Uplands Rural General Rural Agriculture Emerging Communities	100 hectares	200	5,000 m <sup>2</sup> (min dimension 50 m)

Table 6.107.4 Minimum Lot Sizes and Dimensions

For reply please quote: QldRA/LUP/KI - TF/11/17995

Mr Ian Flint Chief Executive Officer Lockyer Valley Regional Council PO BOX 82 GATTON QLD 4343

Dear Mr Flint

I refer to the ongoing collaboration between the Queensland Reconstruction Authority (the Authority) and the Lockyer Valley Regional Council (Council) in relation to the Grantham Reconstruction Area. I note a development application has recently been lodged with Council seeking approval for the subdivision of the first stage of the Strengthening Grantham project.

As authors of the Development Scheme for the Grantham Reconstruction Area (Development Scheme) I provide the Authority's support of the application for 95 allotments including 90 residential allotments facilitating the land ballot process.

The Authority supports and recommends approval of the development application as it is consistent with the intent and substantive provisions of the Development Scheme and the applicable sections of the Gatton Planning Scheme.

I look forward to further the continued partnership with Council to implement the vision of the Development Scheme. If you have any questions, please contact Mr Brendan Nelson, General Manager, Land Use Planning on

Yours sincerely



Level 9, 119 Charlotte Street Brisbane PO Box 15428 City East Queensland 4002 Australia Telephone +61 7 3008 7200 Facsimile +61 7 3008 7299 www.qldreconstruction.org.au

# STRENGTHENING GRANTHAM PROJECT

### **STAGE 1**

DEVELOPMENT APPLICATION RECONFIGURING A LOT (7 INTO 95 LOTS) 75 PHILPS ROAD, GRANTHAM



**Development Assessment Report** 

Date: 5 August 2011 Document Reference: Stage 1\_RoL\_DA\_0811

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Appendix Two	Plan of Subdivision
Appendix Three	Response to Development Scheme Codes

### 1.0 Executive Summary

#### 1.1 Site Details

Address	75 Philps Road, Grantham
Property Description (subject land)	123,124,127,128 and 132 on CA3121, 1 on RP850917 and Lot 99 on SP247669
Applicant	Strengthening Grantham Project
Local Authority	Lockyer Valley Regional Council
Total Site Area	177.414Ha
Existing Use	Vacant / former grazing land
Proposed Use	7 into 95 allotments including 90 Residential Allotments and balance areas
Area Designation	Residential Living Zone Rural Residential Living Zone Open Space and Recreation Zone

#### 1.2 Background

On 10 January 2011 a flash flood tore through the Lockyer Valley leaving the entire community devastated by loss of life and loss of property. The devastation centred on areas around Postmans Ridge, Murphys Creek and Grantham, along the Lockyer Creek. The impact of the flooding in the Lockyer Valley was most severely felt in Grantham.

During these devastating floods, large numbers of houses were completely destroyed and severely damaged in the large lot rural residential areas to the south of the railway line. Damage Assessments throughout the Lockyer Valley following the disaster indicate that 10 houses were completely destroyed, 19 houses are beyond repair and 119 have sustained significant damage.

Given the need to support a timely rebuilding, on 23 March 2011 the Lockyer Valley Regional Council (Council) resolved "to request that the Premier and Minister for Reconstruction declare Grantham a Reconstruction Area in accordance with section 43 of the Queensland Reconstruction Authority Act 2011 (QldRA Act).

On 8 April 2011, Grantham was declared a Reconstruction Area by the Queensland Reconstruction Authority Regulation 2011. The declaration establishes a regulatory framework that ensures that any proposed rebuilding efforts and any applicable approval processes are fast-tracked, enabling works to commence quickly and efficiently.

Section 62 of the QldRA Act allows the Authority to make a development scheme for a Reconstruction Area. Following extensive planning and consultation with the Council, community and government agencies, the Proposed Scheme for the Grantham Reconstruction Area was prepared and released for public consultation for a period of 30 business days on 11 May 2011, closing on 23 June 2011. Under section 70 of the QldRA Act, the Authority was required, having regard for the matters raised in submissions, to amend the Proposed Scheme where appropriate, and provide it to the Premier and Minister for Reconstruction as a "Submitted Scheme" (Submitted Scheme). The submitted scheme and accompanying submissions report was provided to the Premier on 30 June 2011.

No submitters made representations to the Premier during the representation period and therefore it was recommended that the submitted scheme became the Development Scheme for the Grantham Reconstruction Area.

The Development Scheme for the Grantham Reconstruction Area took effect on 4 August 2011 through the Queensland Reconstruction Authority Amendment Regulation 2011.

#### 1.3 The Proposal

The proposed application supports the delivery of lots for stage 1 of the Strengthening Grantham project. This project includes the opportunity for residents who are eligible under the Council's relocation policy to participate in the voluntary land ballot process.

The application is for a Development Permit for Reconfiguration of a Lot to subdivide the subject land into 95 lots including 90 residential allotments. Lot sizes range from 1003m<sup>2</sup> to 1.013Ha with a balance lot of 120Ha. A total of 10.023Ha of new road area is provided, including new access points from Boxmoor Street and Philps Road.

The application is considered to be generally in accordance with the provisions of the Development Scheme for the Grantham Reconstruction Area and as such warrants approval subject to relevant and reasonable conditions.

The proposed plan of subdivision is shown in the plans attached in Appendix Two.

#### 1.4 Development Application

This application seeks a Development Permit for Reconfiguration of a Lot. In accordance with the provisions of the Sustainable Planning Act 2009 and the Development Scheme for the Grantham Reconstruction Area the application is considered to be Code Assessable as some aspects of the proposed development do not meet the requirements for exempt development. A small number of lots do not meet the minimum lot size and a similar a number of lots do not meet the minimum lot frontage in both instances the elements of non-compliance is considered to be minor.

#### 1.5 Supporting Documentation

Supporting this development application are the following documents:

Appendix One	IDAS Application Forms
Appendix Two	Plan of Subdivision
Appendix Three	Response to Development Scheme Codes

#### 1.6 Contact

Mr Jamie Simmonds, Project Director , Strengthening Grantham Mob:

### 2.0 Site Characteristics

#### 2.1 Site and Surrounds

The subject site is located at 75 Philps Road, Grantham and is formally described as lot 123,124,127,128 and 132 on CA3121, lot 1 on RP850917 and lot 99 on SP247669 and is currently vacant. The site is located within the Grantham Reconstruction Area and is currently existing rural development.

#### Figure 1 Site Locality



Source: DERM Aerial Photography

#### 2.2 Topography

The subject site has a main ridge which the new road, Tryhorn Street follows. The land slopes gradually down from Tryhorn Street to the north east and south west of the site.

#### 2.3 Vegetation

Investigations of relevant vegetation mapping identifies that two small pockets of vegetation require protection. These pockets are adequately protected under the provisions of the Grantham Development Scheme and fall outside the proposed development subject to this application.

### 3.0 The Proposal

#### 3.1 Proposal Description

The proposed application supports the delivery of lots for stage 1 of the Strengthening Grantham project. This project includes the opportunity for residents who are eligible under the Council's relocation policy to participate in the voluntary land ballot process.

The application is for a Development Permit for Reconfiguration of a Lot to subdivide the subject land into 95 lots including 90 residential allotments. Lot sizes range from 1003m<sup>2</sup> to 1.013Ha with a balance lot of 120Ha. A total of 10.023Haof new road area is provided, including new access points from Boxmoor Street and Philps Road.

The proposed plan of subdivision is shown in the plans attached in Appendix Two.

#### 3.2 Site Access

Access to the site will be achieved via the construction of a new 20m wide residential access road connecting to new access points from Boxmoor Street and Philps Road. As this is the first Stage of construction in the Grantham Reconstruction Area, no external traffic is attracted to the site. As such, only low volumes of local access traffic will be present onsite and on Boxmoor Street and Philps Road. The small increase in traffic generated by the additional lots will not disturb the hierarchy or create any conflict to with traffic already using Boxmoor Street and Philps Road.

#### 3.3 Subdivision Design

A total of 95 allotments are proposed as part of the proposed development facilitating stage 1 of the Strengthening Grantham project.

Lot Size	Number of Lots	Avg Frontage
Approx. 1000m <sup>2</sup>	7	20m
1100m <sup>2</sup> – 1900m <sup>2</sup>	9	25m
Approx. 2000m <sup>2</sup>	20	25m
Approx. 4,000m <sup>2</sup>	45	50m
Approx 10,000m <sup>2</sup> (1ha)	9	55m
Balance Lots	5 (total area - 133.58ha)	
Total Number of Lots	95	

The proposal is generally consistent with the requirements of both the residential living and rural residential zones and the reconfiguring a lot code of the Gatton Planning Scheme.

#### 3.4 Infrastructure Provision

As part of the Development Scheme, a proposed Infrastructure Plan was developed by Council's consultants, including roads, water, sewerage, stormwater management, electricity supply, telecommunications, community facilities and parks.

### 4.0 Development Scheme Provisions

#### 4.1 Zoning

#### Figure 2 – Site Zoning



Source: Development Scheme for Grantham Reconstruction Area

As shown in *Figure 2*, the proposed development is located across three planning zones of the Grantham Development Scheme, those being Residential living, Rural residential and Recreation and open space zone.

The purpose of the Residential living zone is to provide for predominantly dwelling houses supported by community uses and small-scale services and facilities that cater for local residents.

The purpose of the Rural residential zone is to provide for residential development on large lots where the local government infrastructure and services may not be provided and where the intensity of residential development is generally dispersed.

The Recreation and open space zone will accommodate further parklands and sporting fields. Works within this zone will be subject to further stages.

Residential development will be entirely located within the Residential Living and Rural Residential zones of the site.

A small number of the lots in the Residential Living 1 and 2 precincts do not comply with AO2.1 and AO2.2 of the Residential living code, as a number of proposed allotments have a frontage less than 20m. The reduced frontages are only a minor relaxation on the required frontage where only a few lots do not meet the minimum frontage of 20m. Averaged out across all allotments a minimum 20m frontage is provided and therefore considered to satisfy the provisions of the code.

Further to this, a number of allotments proposed within the Residential Living 2 precinct are 1000m<sup>2</sup> where the proposed precinct is to support 2000m<sup>2</sup> lots. Whilst it is recognised that a number of the proposed lots are 1000m<sup>2</sup>, they still sufficiently
ensure that the created lots can accommodate buildings, vehicle access, car parking, open space, waste disposal facilities and landscaping, in accordance with community expectations and therefore satisfy the requirements of the code.

The Reconfiguring a Lot Code of the Gatton Planning Scheme has been addressed in *Appendix Three* of this report.

#### 4.2 Overlays

Within the Grantham Development Scheme, applications for Reconfiguring a Lot are subject to the following Overlay Codes:

- Potential Bushfire Risk Area Overlay
- Steep and Unstable Land Overlay

The site contains regions that have been identified as Medium Fire Risk as per the Potential Bushfire Risk Area Overlay Map. However, much of the site has now been cleared and as part of the Development Scheme, a bushfire buffer zone has been included on the western edge of the property.

In addition, the proposed development addresses the other key issues contained in the Potential Bushfire Risk Area Overlay Code, including appropriate road layout and sufficient water supply.

Part of the balance land on the western edge has slopes of 15% or greater. However, as this land is located in the balance, any future applications to develop this area will be required to address these issues satisfactorily.

In addition, the proposed development addresses the other key issues contained in the Steep and Unstable Land Overlay Code, including stable land, safe vehicle access, and minimising disturbance to natural surface and drainage patterns.

### 4.3 Other Codes

In accordance with the relevant Assessment Criteria specified by the Grantham Development Scheme for this type of development, the other Gatton Planning Scheme codes applicable to the development application are:

- Earthworks Code (except A1.2);
- Services and Infrastructure Code (except A2.2(a)); and
- Vehicle Access, Parking and On-site Movement Code.

Any earthworks associated with the development are currently being undertaken in accordance with the temporary local planning instrument or will be appropriately undertaken following the approval of this application.

The proposed development has been designed to address the issues identified in the Services and Infrastructure Code and the Vehicle Access, Parking and On-site Movement Code, and as such is consistent with these Codes.

### 5.0 Conclusion

The proposed application supports the delivery of lots for stage 1 of the Strengthening Grantham project. This project includes the opportunity for residents who are eligible under the Council's relocation policy to participate in the voluntary land ballot process.

The application is for a Development Permit for Reconfiguration of a Lot to subdivide the subject land into 95 lots including 90 residential allotments. Lot sizes range from 1003m<sup>2</sup> to 1.013Ha with a balance lot of 120Ha. A total of 10.023Ha of new road area is provided, including new access points from Boxmoor Street and Philps Road.

The application is considered to be generally in accordance with the provisions of the Development Scheme for the Grantham Reconstruction Area and as such warrants approval subject to reasonable and relevant conditions.

If you have any questions, or require anything further in relation to this matter, please do not hesitate to contact Jamie Simmonds on 0433 282 897 to discuss.

Appendix One IDAS Forms integrated Development Assessment System form

# Application details-IDAS form a

(Sustainable Planning Act 2009 version 1.0 effective 18 December 2009)

You **MUST** complete **ALL** questions unless the form indicates otherwise. Incomplete forms or forms without all necessary information and documentation will result in your application not being a properly made application.

For all development applications, you must:

- complete this form (Application details-IDAS form 1)
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* or the *Sustainable Planning Regulation 2009*.

This form can also be completed online using Smart eDA at www.smarteda.qld.gov.au

Applicant details (note: the applicant is the person responsible for making the application and need not be the owner of the land. The applicant is responsible for ensuring the information provided on all IDAS application forms is correct. Any development permit or preliminary approval that may be issued as a consequence of this application will be issued to the applicant.)

Name/s (individual or company name in full)	LOCKYER VALLEY REGIONAL CAMEL
For companies, contact name	MR JAMIE SIMMONDS
Postal address	PO BOX 82
	GATTON QLD 4343
Contact phone number	
Mobile number (non-mandatory)	
Fax number (non-mandatory)	
e-mail address (non-mandatory)	

Department of Infrastructure and Planning

Optain

Queensland

1. What is the nature of development proposed? (tick all applicable box/es)         material change of use of premises         building work         operational work         reconfiguring a lot         2. What type of approval is being sought?         ✓       development permit         preliminary approval       both—provide details below         3. is the application for a mobile and temporary environmentally relevant activity (ERA)?         No       Yes—complete table A and then go to question 5					
material change of use of premises         building work         operational work         reconfiguring a lot         2. What type of approval is being sought?         ✓         development permit         preliminary approval         both—provide details below					
2. What type of approval is being sought?   image: development permit preliminary approval   both—provide details below     3. Is the application for a mobile and tamporary environmentally relevant activity (ERA)?     image: No   image: Ves-complete table A and then go to question 5					
development permit preliminary approval   both—provide details below     3. Is the application for a mobile and temporary environmentally relevant activity (ERA)?     No   Yes—complete table A and then go to question 5					
3. Is the application for a mobile and temporary environmentally relevant activity (ERÁ)?         Image: Second state in the second state is a second state in the second state in the second state is a second state in the second state in					
3. Is the application for a mobile and temporary environmentally relevant activity (ERA)?         No         Yes-complete table A and then go to question 5					
S. Is the application for a mobile and temporary environmentally relevant activity (EXA)?     No     Yes—complete table A and then go to question 5					
No       Yes-complete table A and then go to question 5					
Yes-complete table A and then go to question 5					
Table A-name of each local government area in which the mobile and temporary ERA is proposed to operate					
4. Location of the premises (complete table B and/or table C as applicable. Identify each lot in a separate row)					
Table B-street address/lot for the premises or street address/lot on plan for the land adjoining or adjacent to the premises					
premises					
premises street address/lot on the plan					
premises  street address/lot on the plan  street address/lot on plan for the land adjoining or adjacent to the premises (appropriate for development in water e.g. jetty, pontoon)					
premises         Image: street address/lot on the plan         Image: street address/lot on plan for the land adjoining or adjacent to the premises (appropriate for development in water e.g. jetty, pontoon)         Street address         Lot on plan description         Local government area					
premises         Image: street address/lot on the plan         street address/lot on plan for the land adjoining or adjacent to the premises (appropriate for development in water e.g. jetty, pontoon)         Street address         Lot on plan description         Vnit       Street name and official suburb/ no.         No.       Street name and official suburb/ locality name         Code       Plan type and plan no.					
premises         Image: Street address/lot on the plan         Image: street address/lot on plan for the land adjoining or adjacent to the premises (appropriate for development in water e.g. jetty, pontoon)         Street address         Lot on plan description         Unit no.       Street name and official suburb/ locality name         Image: No.       Philps Road,         Image: No.       Philps Road,         Image: No.       Philps Road,         Image: No.       Philps Road,					

99

BP247669



**Table C**—premises coordinates (appropriate for development in remote areas, over part of a lot or in water e.g. channel dredging in Moreton Bay)

Coordinate (note: place	e each set of coord	linates in a separ	ate row)	Zone reference	Datum	Local government area (if applicable)
Easting	Northing	Latitude	Longitude			
					GDA94 WGS84	

5. Total area of the premises on which the development is proposed (indicate hectares or m<sup>3</sup>)

177.414ha

6. Current use/s of the premises (e.g. vacant land. house, apartment building, cane farm, etc.)

### Former grazing land

7. Provide a brief description of the proposal (e.g. six unit apartment building, 30 lot residential subdivision etc.)

Subdivision for 7 into 95 lots including Residential anotments 90

8. Is owner's consent required for this application? (refer to notes at the end of this form for more information)

Yes—complete either table D, table E or table F as applicable

Table D	
Name of owner/s of the land	
I/We, the above-mentioned owner/s o	the land, consent to the making of this application.
Signature of owner/s of the land	
Date	

3

<sup>🗙</sup> No

Table E		
Name of ow	ner/s of the land	
The own	ner's written consent is attach	ed or will be provided separately to the assessment manager
Table F	a desarra de la companya de la compa	
Name of ow	ner/s of the land	
By make application.	ting this application, I, the ap	plicant, declare that the owner has given written consent to the making of the
9. Does the Refei to the	application involve a state notes at the end of this form	resource? (e.g. the application involves state land, or taking quarry materials. for more information)
No No	□ ×	es—complete table G
Table G-st	ate owned resources (provide	e details for each state resource in a separate table)
Nature of s	tate-owned resource	
Nature of e applicable I evidence to	vidence required (tick the box and attach a copy of the this form)	Evidence of an allocation of, or an entitlement to, the resource
		Evidence the chief executive of the department administering the resource is satisfied the development is consistent with an allocation of, or an entitlement to, the resource
		Evidence the chief executive of the department administering the resource is satisfied the development application may proceed in the absence of an allocation of, or an entitlement to, the resource
10. identify	if any of the following appl	y to the premises (tick applicable box/es)
adjac	ent to a water body, watercou	rrse or aquifer (e.g. creek, river, lake, canal)—complete table H
on sti	rategic port land under the 77	ansport Infrastructure Act 1994—complete table I
in a ti	idal water area—complete tab	le j
Table H	Name of water body, waterco	ourse or aquifer

Application details—IDAS form 1 Version 1.0 18 December 2009

Table	Lot on plan description for	strategic por	t land		Port authority for the lot	
		<u> </u>				
Table J	Name of local government i	or the tidal a	irea (îf app	licable)	Port authority for the tidal area (if applicable)	
11. Are the	re any existing easements (	on the prem	ises? (e.g.	for vehicular	r access, electricity, overland flow, water, etc.)	
No No	Yes—ensure the type	, location an	d dimensio	on of each ea	isement is included in the plans submitted	
12. Does th	e proposal include new bu	il <b>ding w</b> ork	or operati	onal work or	n the premises? (including any services)	
No No	Yes—ensure the natu	re, location a	and dimen	sion of propo	osed works are included in plans submitted	
13. Is the p form for mo	ayment of a portable long s re information)	ervice leave	e levy app	licable to th	is application? (refer to notes at the end of this	
No-g	go to question 15	Yes				
14. Has the	14. Has the portable long service leave levy been paid? (refer to notes at the end of this form for more information)					
No						
Yes— receiț	complete table K and submit oted QLeave form	with this ap	plication t	he yellow loc	cal government/private certifier's copy of the	
Table K	Amount paid	t paid Date paid QLeave Project Number (6 digit number starting with A, B, E, L or P)				
<u>,                                    </u>						
15. Has the the <i>Sustain</i>	local government agreed to mable Planning Act 2009?	o appiy a su	perseded	planning sc	heme to this application under section 96 of	
No No						
Yes	please provide details below	•				
Name of loca	al government	Dat by (	te of writte local gover	n notice give mment	n Reference number of written notice given by local government (if applicable)	



16. List below all of the forms and supporting information that accompany this application (include all IDAS forms, checklists, mandatory supporting information etc. that will be submitted as part of this application. Note: this question does not apply for applications made on-line using Smart eDA)

Description of attachment or title of attachment	Method of lodgement to assessment manager
Development Assessment Report inc	
IDAS Forms, Plan of subdivision of	
response to code provisions.	

#### 17. Applicant's declaration

By making this application, I declare that all information in this application is true and correct (note: it is unlawful to provide false or misleading information).

#### Notes for completing this form

#### **Question 8:**

- Section 263 of the Sustainable Planning Act 2009 sets out when the consent of the owner of the land is required for an application. Section 260(1)(e) of the Sustainable Planning Act 2009 provides that if the owner's consent is required under section 263, then an application must contain, or be accompanied by, the written consent of the owner, or include a declaration by the applicant that the owner has given written consent to the making of the application.
- Owner's consent is not required for a mobile and temporary ERA.

#### Question 9:

Section 264 of the Sustainable Planning Act 2009 provides that if a development involves a state resource, a
regulation may require the application to be supported by certain evidence prescribed under the regulation. Schedule
14 of the Sustainable Planning Regulation 2009 prescribes the state resources for which evidence is required to be
given, and the evidence required, to support the application.

#### Question 13:

- The Building and Construction Industry (Portable Long Service Leave) Act 1991 prescribes when the portable long service leave levy is payable.
- The portable long service leave levy amount and other prescribed percentages and rates for calculating the levy are prescribed in the Building and Construction Industry (Portable Long Service Leave) Regulation 2002.

#### Question 14:

- The portable long service leave levy need not be paid when the application is made, but the Building and Construction Industry (Portable Long Service Leave) Act 1991 requires the levy to be paid before a development permit is issued.
- Building and Construction Industry Notification and Payment Forms are available from any Queensland post office or agency, on request from QLeave, or can be completed on the QLeave website at www.qleave.qld.gov.au. For further information contact QLeave on 1800 803 481 or www.qleave.qld.gov.au.



**Privacy**—the information collected in this form will be used by the Department of Infrastructure and Planning (DIP) in accordance with the processing and assessment of your application. Your personal details will not be disclosed for a purpose outside of the IDAS process, except where required by legislation (including the *Right to Information Act 2009*) or as required by Parllament. This information may be stored in a departmental database. The information collected will be retained as required by the *Public Records Act 2002*.

#### OFFICE USE ONLY

Date received

**Reference numbers** 

#### **NOTIFICATION OF ENGAGEMENT OF A PRIVATE CERTIFIER**

Ta

Council. I have been engaged as the private certifier for the building work referred to in this application

Date of engagement	Name	BSA Certification license number	Building classification/s

#### QLEAVE NOTIFICATION AND PAYMENT (for completion by assessment manager or private certifier if applicable)

Description of the work	QLeave Project Number	Amount paid (\$)	Date paid	Date receipted form sighted by assessment manager	Name of officer who sighted the form

The *Sustainable Planning Act 2009* (SPA) is administered by the Department of Infrastructure and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agencies.

Inte

# Reconfiguring a lot-IDAS form 7

(Sustainable Planning Act 2009 version 1.0 effective 18 December 2009)

This form must be completed for development applications for reconfiguring a lot.

You MUST complete ALL questions unless the form indicates otherwise. Incomplete forms or forms without all necessary information and documentation will result in your application not being a properly made application.

For all development applications, you must:

- complete Application details—IDAS form 1
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* or the *Sustainable Planning Regulation 2009*.

This form can also be used for development on strategic port land under the Transport Infrastructure Act 1994.

This form can also be completed	online using S	mart eDA at ww	w.smarteda.ql	d.gov.au
1. What is the total number of exi	sting lots mak	ing up the prem	ises?	F
2. What is the nature of the lot re	configuration?	(tick applicable	box/es)	
subdivision—complete quest         boundary realignment—comp         creating an easement giving a         dividing land into parts by ag	ions 3 – 6 and : lete questions access to a lot f reementplea:	11 8, 9 and 11 from a construct se provide detail	ed road—comp Is below and co	ete questions 10 and 11 mplete questions 7 and 11
3. Within the subdivision, what is	the number of	f additional (ots	being created	l and their intended final use?
intended final use of new lots	Residential	Commercial	Industrial	Other-specify
Number of additional lots created	90			5 Balance
4. What type of approval is being	sought for the	subdivision?		
development permit preliminary approval both				
Department of Intrastructure a	nd Planning		ntan	S Queensland

Covernment

5. Are there any current approvals associated with this subdivision	application? (e.g. m	aterial change of use)			
No Yes—provide details below					
List of approval reference/s	Date approved	Date approval lapses			
6. Does the proposal involve multiple stages?					
Nocomplete table A Yescomplete table B					
Table A					
What is the total length of any new road to be constructed?		10 023Ha			
What is the total area of land to be contributed for community purpos	ies?	/			
Does the proposal involve the construction of a canal or artificial waterway?					
🔀 No 🗌 Yes					
Does the proposal involve operational work for the building of a retaining wall?					
No Yes					
Table B—complete a new table B for every stage If the application involved	es more than one st	age			
What is the proposed estate name? (if known and if applicable)					
What stage in the development does this table refer to?					
Will the development permit being sought for this stage result in add (only applicable if a development permit is being sought)	itional residential lo	ts?			
No Yes-specify the total number					
What is the total area of land for this stage?					
What is the total length of any new road to be constructed at this stag	;e?				
What is the total area of land to be contributed for community purpos	es?				
Does the proposal involve the construction of a canal or artificial wate	erway?				
No Yes					
Does the proposal involve operational work for the building of a retai	ning wall?				
No Yes					
7. Lease/agreement details—how many parts are being created and	what is their intend	ed final use?			

Intended final use of new parts	Residential	Commercial	Industrial	Other-specify
Number of additional parts created				
2				Reconfiguring a lot-IDAS form 7

Reconfiguring a lot-IDAS form 7 Version 1.0 18 December 2009

# 8. What are the current and proposed dimensions following the boundary realignment for each lot forming the premises?

Current lot			Proposed lot					
Lot plan description	Area	Length of road frontage	Lot number	Area	Length of road frontage			
NIA								

#### 9. What is the reason for the boundary realignment?

N	IA

#### 10. What are the dimensions and nature of the proposed easement?

Width (m)	Length (m)	Purpose of the easement (e.g. pedestrian access)?	Entity favoured by the easement
		Refer to plans	

### 11. Confirm that the following mandatory supporting information accompanies this application

Mandatory supporting information	Confirmation of lodgement	Method of lodgement
site plans drawn to scale (1:100, 1:200 or 1:500 are the recommended scales) which show the following:	confirmed	
<ul> <li>the location and site area of the land to which the application relates (<i>relevant land</i>)</li> <li>the north point</li> <li>the boundaries of the relevant land</li> <li>any road frontages of the relevant land, including the name of the road</li> <li>the contours and natural ground levels of the relevant land</li> <li>the location of any existing buildings or structures on the relevant land</li> <li>the allotment layout showing existing lots, any proposed lots (including the dimensions of those lots), existing or proposed road reserves, building envelopes and existing or proposed open space (note: numbering is required for all lots)</li> <li>any drainage features over the relevant land, including any watercourse, creek, dam, waterhole or spring and any land subject to a Q100 flood event</li> <li>any existing or proposed roads and access points on the relevant land</li> </ul>		
<ul> <li>any existing or proposed car parking areas on the relevant land</li> <li>the location of any proposed retaining walls on the relevant land and their height</li> </ul>		
<ul> <li>the location of any stormwater detention on the relevant land</li> <li>the location and dimension of any land dedicated for community purposes</li> <li>the final intended use of any new lots</li> </ul>		
a statement about how the proposed development addresses the local government's planning schemes and any other planning documents relevant to the application	confirmed	



#### Notes for completing this form:

• This form can also be used for reconfiguring a lot against the land use plan for Cairns airport land or Mackay airport land. Whenever a planning scheme is mentioned, take it to mean land use plan for the airport land.

Privacy—please refer to your local council for further details on the use of information recorded in this form.

OFFICE USE ONLY		
Date received	Reference numbers	

The *Sustainable Planning Act 2009* is administered by the Department of Infrastructure and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agencies.

Appendix Two Plans of Subdivision



	WAR	NING : Fo	olded or l Pla n may no	Mutilate ns may ot be pl	d Plans wil be rolled. aced in th	ll not 1 e outer	ne acce marg	epted. ins.		
(Dealing No.)	Registered			5.	s Lodged by					
				(In	clude oddress, pl	hone numb	er, referen	ice, and Lo	dger Code	)
			Fulation	1.4			Create	d		
Certificate of Registered Owners or Lessees.		b. Title	Existing		Man Pa	+	Road	Emte	Cov	Profit a
/We LOCKYER VALLEY REGIONAL COL		Reference 14823226 14823221 14823224 14823227 14823225	Lot 123 or Lot 124 or Lot 127 or Lot 128 or Lot 128 or	CA3121 CA3121 CA3121 CA3121 CA3121 CA3121 CA3121	58 to 64, 72 999 11, 40 to 43 c 42 to 54, 58 63 to 79 or 1 to 41, 82 to 8	and 999 and 999 3 to 60, nd 999 5 and 999	New Rd New Rd New Rd New Rd	A to H &	- - M, N, P R&S -	
Names in full) * as Registered Owners of this land agree to this plan and a Land as shown hereon in accordance with Section 50 of the * <del>as Lessess of this land agree to this plan.</del>	dedicate the Public Use Land Title Act 1994.	18553016	Lot I on R Lot 99 on S SP2-	P850917 SP247669 47669 m	39, 41 to 43, 77 to 82 or 38 to 44, 57, 5 ust be regis	53 to 57 nd 999 32 and 999 tered be	New Rd	is plan.	S, I,   V&W	-
Signature of *Registered Owners *Lesses		l to 10, 1 and 83	2 to 37 to 85	Poi	- 132					
		1	1	Pors 12	7 and 132					
		3	8	Por I Lot 99 on	32 and SP247699					
		39 ar	nd 82	Pors 131 c Lot 99 or	and 132 and SP247699					
		40 Pors 127 and 132 and Lot 99 on SP247699								
			41 c	Pors 127, and Lot 99	131 and 132 on SP247699					
		42 a	nd 43 d	Pors 127, and Lot 99	128 and 131 on SP247699					
		4	14	Por Lot 99 of	128 and n SP247699					
		45 to 52 ond 7	2, 65 to 71 3 to 76	Po	or 128					
* Rule out whichever is inapplicable		53, 5 77	54 and to 79	Pors I	28 and 131					
		55 o 80 o	ind 56, and 81	P	or 131					
*			57	Por Lot 99 c	131 and n SP247699					
%		58 to 64 c	60, 63, and 72	Pors I	23 and 128					
		61 c	and 62	P	or 123					
			999 Pors 123, 124, 127, 128, 131, 132 and 135 and Lot 99 on SP247699 I certify that : * As for as it is practical to d					determin	e, no par	
		1	Lots		Orig	or the bu onto adjo	oining lots	s or road,	a won enc	. ouclies
		7. Porti	on Allocati	ion :		* Part o encroact	f the build	ding shown	n on this p * lots and	road
Dated this day of			B. Map Reference : 9342-41244     Cadostral Surveyor/Director* Date     #dete words not required							
			9. Locality : GRANTHAM Survey Deposit					\$		
#		10. Loca	l Governm (YER VALL		Lodge	ement New Title	9	\$ \$		
* Insert the name of the Local Government. % Insert Integrated	Planning Act 1997 or	IL Pass	ed & Endo	rsed :		Photo	осору		\$	
# Insert designation of signatory or delegation Local Government 3.Plans with Community Management Statement :	4. References :	By:		21/7/	//	TOTA	oge L		\$	
CMS Number : Name :	Local Govt : Surveyor : 1870	Signe Desig	d: nation: Ca	dastral Su	rveyor	14. Inser Pla Numbe	rt In Pr	SP2	476	70























	NING : Folded or Mutilated Plans will not be accepted. Plans may be rolled. aformation may not be placed in the outer margins.											
(Dealing No.)			5. L	odged by								
				(Incl	ude address, j	phone num	ber, referenc	e, ond Lo	dger Coo	e)		
Cartificate of Registered Owners or Lessees		6.	Existing			-	Created					
		Title	Descripti	ion	New L	ots	Road	Emts	Cov.	Profit of prendre		
			Lot 999 on SI Lot 82 on SP	P247670 P247670	104, 105, 10 126 to 128 82	)8 to 111, and 999	New Rd New Rd	1 6	1.4	-		
Names in full) * as Registered Owners of this land agree to this plan and .and as shown hereon in accordance with Section 50 of th * as Lessees of this land agree to this plan.	dedicate the Public Use le Land Title Act 1994.		SP24	7670 mu	st be regis	stered b	efore this	a plan.				
Signature of *Registered Owners *Lessons												
* Rule out whichever is inapplicable		110 c	and III	Pors 123	and 128							
2. Local Government Approval.		104, 105,	108 and 109	Por	123							
hereby approves this plan in accordance with the :	ACCOUNTS AND	127 0	nd 128	Por	127							
%		3	26 82	Pors 127 Pors 131, Lot 99 on S	ond 132 132 and 5P247699							
		g	999	Pors 12 127, 12 132 and Lot 99 an 5	3, 124, 8, 131, 135 and SP247699	12. Building Format Plans o I certify that : * As for as it is practical to deter				only. erroine, no por		
			ots	Ori	9	of the bu onto adj	uilding shown aining lats a	rood.	plan end	rooches		
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Dated this			Reference : -41244		encroaches onto adjoining * lots and road Cadastral Surveyor/Director * Date							
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Appendix Three Response to Development Scheme Codes

Reconfiguration of a Lot code from the Gatton Planning Scheme

6.107 Specific Outcome and Probable Solutions for Code Assessable Development (A) For all Development – Land in all zones

Specific Outcome	Probable Solutions	Complies (Yes or No)	Comments
Lot Layout and Design			
Flood Immunity P1. An acceptable level of flood immunity is provided for new residential lots.	A1.1-A1.5 are not applicable. A1.6 Otherwise, no probable solution is provided.	Yes – complies with the specific outcome	An acceptable level of flood immunity is provided for new residential lots.
Lot size and layout P2. The size and layout of proposed new lots is sufficient to ensure uses subsequently established on those lots can accommodate buildings, vehicle access, car parking, open space, waste disposal facilities and landscaping, in accordance with community expectations.	<ul> <li>A2.3 Where a new lot is proposed to be located at the head of a cul-de-sac, or at the change of alignment of a road, the minimum frontage is measured in a straight line between points located on the side boundaries, situated 6m from the road frontage.</li> <li>A2.4 Where the new lot is a rear or battle axe lot, the area and the width of the lot do not include the narrow part of the land used for access.</li> </ul>	Yes - complies with the specific outcome Yes - complies with the specific outcome	Probable solutions are not applicable since there is no cul- de-sac's and rear or battle axe blocks in reconfiguration. The proposed development has been designed to comply with P2.
P3 New lots respond appropriately to the physical characteristics of the land and, and minimise risk to life and property as a result of any potential natural hazards. Relevant considerations include (i). slope; (i). flooding; (ii). flooding; (ii). bushfire risk; (iv). agricultural suitability; and (v). areas of ecological or scenic value.	A3.1 No probable solution is provided.	Yes – complies with the specific outcome	These issues were considered and the reconfigurations have been duly designed to take these into account.

A site analysis of the reconfigured lots is detailed in the Development Scheme.	Not Applicable to reconfiguration				
Yes - complies with the specific outcome	°Z				
A41 No probable solution is provided.	A5.1 No specific Probable Solutions are prescribed.				
<i>Multiple Lots</i> <b>P4</b> Where the proposed reconfiguration involves 10 or more new lots, an overall site analysis and concept plan is prepared and submitted showing how the lots: (a) provide for the creation of a new neighbourhood and/or streetscape with good amenity and identity; (b) impact on nearby lots; (c) connect to existing infrastructure; (d) balance development with conservation of natural features such as vegetation, views, and ridge lines; (e) facilitate the siting of buildings to take advantage of aspect, microclimate, and casual surveillance of public bspaces (f) ensure buffers to potentially incompatible land uses, (g) provide for safe and efficient access both within the site and to and from main connecting roads; (h) connect to open space and pedestrian and cycling networks; and (i) connect to public transport. <b>Note:</b> Planning Scheme Policy 25 – ' Subdivision Plans' will assist with preparation of the site analysis and concept plan.	Small Lots P5. Any new lot which is proposed to be less than 600m2 and could be used as the site for a small lot house is able to accommodate all facilities normally provided in a dwelling house, without impact on neighbours. <b>Note</b> : The design of small lots should take into account the Queensland				
	Not Applicable to reconfigura	Not Applicable to A7.1 – A7.3		with The streets have been design come in accordance with the requirements of the specific with outcome and the infrastructur plan of the Development Scheme.	with The streets have been design come in accordance with the requirements of the specific with outcome and the infrastructur plan of the Development Scheme.
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	۶	°N		Yes - complies v the specific outc Yes - complies v the specific outc	Yes - complies v the specific outo Yes - complies v the specific outo
	<ul> <li>A6.1 No existing building:</li> <li>(a) straddles a boundary between new lots; or</li> <li>(b) is located closer to any boundary than</li> <li>(i) 6m to the front rear boundaries; and</li> <li>(ii) 3m to side boundaries; or</li> <li>A6.2 An existing building is set back from the boundaries of a proposed new block in accordance with other zone or codes in this planning scheme.</li> </ul>	<b>A7.1</b> Two or more lots are amalgamated, or <b>A7.2</b> Two or more lots are resubdivided, and. <b>A7.3</b> The utility of the existing lots is improved.		A8.1 The new road layout is designed and constructed in accordance with Table 6.107.1 below, or A8.2 The road layout complies with the provisions of "Queensland Streets - Design Guidelines	<ul> <li>A9.1 New streets or roads are designed to ensure reserve and pavement widths which comply with the Table 6.107.2.</li> <li>A9.2 Road width complies with the provisions of "Queensland Streets – Design Guidelines for Subdivisional Streetworks".</li> </ul>
Residential Design Guidelines in relation to "Integrated Development".	<i>Existing Buildings</i> <b>P6.</b> Any new lot which is proposed to contain an existing building is designed to ensure the building is set back from boundaries.	Boundary Realignment P7. Boundaries of lots are realigned to improve the existing conditions of the land.	Movement Network	<ul> <li>P8. New streets or roads are designed and constructed to:</li> <li>(a) function safely and efficiently;</li> <li>(b) have the capacity to accommodate projected traffic movements;</li> <li>(c) exhibit a high degree of connectivity within the local network; and</li> <li>(d) perform an appropriate role within a road network consisting of the following types of road:</li> </ul>	<ul> <li>P9. New streets or roads have sufficient reserve and pavement widths to cater for the function that the road is expected to fulfil, including:</li> <li>(a) the safe and efficient movement of all users, including pedestrians, cyclists and buses on roads which form, or are likely to form, bus routes;</li> <li>(b) provision for parked vehicles; and (c) the provision of public utilities and landscaping.</li> </ul>

The streets have been designed in accordance with the requirements of the specific outcome and the infrastructure plan of the Development Scheme.	Not Applicable to reconfiguration	The streets have been designed in accordance with the requirements of the specific outcome and the infrastructure plan of the Development Scheme.
Yes - complies with the specific outcome	Q	Yes - complies with the specific outcome
A10.1 Intersections are spaced as follows: Road Minimum Intersection Spacing Type On Same Side of Through Road On Opposite Side of Through Road Access Street 60 m 40 m Collector Street 60 m 40 m Trunk Collector 100 m 60 m Arterial Road As required by the responsible authority	A11.1 No direct property access to the highway is proposed.	<ul> <li>A12.1 Road construction is in accordance with the following:</li> <li>(a) for residential and rural residential streets:</li> <li>(i). flexible pavement construction based on the ARRB residential street pavement design method using equivalent standard axle loadings based on an average traffic generation rate of 10 veh/d per allotment and a 20 year design life (ARRB, 1989); or</li> <li>(i). concrete pavement based on the CCA design table; or</li> <li>(i). interlocking block pavement design method;</li> <li>(b) for rural roads, construction to standards given in Council guidelines and/or "Rural Road Design" (Austroads 1989); and</li> <li>(c) for other roads, construction to standards given in Council guidelines and/or "Rural Road Design" (Austroads Specifications, 1999.</li> </ul>
<ul> <li>P10. The road layout is designed and constructed so that:</li> <li>(a) intersections are spaced to enable convenient, efficient and safe movements; and</li> <li>(b) intersections with existing roads are capable of handling anticipated traffic volumes.</li> </ul>	<ul> <li>P11. Where on land in proximity to the Warrego Highway, the layout of roads and new lots ensures the protection of the safety and efficiency of the highway by local including:</li> <li>(a) minimum use of the highway by local traffic through the development and integration of efficient internal road networks; and</li> <li>(b) nationalisation and improvement of existing connections to the highway</li> </ul>	<ul> <li>P12. Road pavement surfaces are of a quality and durability suitable to: <ul> <li>(a) the intended traffic volumes and loads;</li> <li>(b) the provision of all-weather access;</li> <li>(c) the discharge of rainfall;</li> <li>(d) the safe passage of vehicles, bicycle and pedestrians; and</li> <li>(e) the maintenance of a reasonable, comfortable riding quality.</li> </ul> </li> </ul>

D13 The naviement adre treatment is	(a) 1110 1110011101111 BLORGE 101 0 110M 1000 10 17.0 10.		
<ul> <li>(a) prevent edge fretting;</li> <li>(b) perform required drainage functions;</li> <li>(c) provide the appropriate level of control for vehicle movement;</li> <li>(d) allow ready access to abutting properties at suitable locations; and</li> <li>(e) contribute to the desired streetscape character of the locality.</li> </ul>	<ul> <li>A131 Kerb types provided are as follows:</li> <li>Street Type Kerbing</li> <li>Local Residential Street Drive over Collector</li> <li>Street Drive over Trunk Collector Layback or</li> <li>Upright Arterial Road As required by the</li> <li>Department of Main Road Shoulder Rural Road</li> <li>providing access to allotments generally less</li> <li>than 8000 m2 in area Layback or Upright</li> <li>otherwise Formed Shoulder Rural Road Formed</li> <li>Shoulder</li> <li>P13. The pavement edge treatment is constructed</li> <li>to:</li> <li>(a) prevent edge treatment is constructed</li> <li>(b) perform required drainage functions;</li> <li>(c) provide the appropriate level of control for vehicle movement;</li> <li>(d) allow ready access to abutting properties at suitable locations; and</li> <li>(e) contribute to the desired streetscape</li> <li>character of the locality.</li> <li>A13.2 Kerb and channel profiles comply with Australian Standard AS 2876-1987, and</li> <li>A13.3 Pavement edge material is concrete (for other than rural or rural residential roads where a formed shoulder verge is provided).</li> </ul>	Yes - complies with the specific outcome	The streets have been designed in accordance with the requirements of the specific outcome and the infrastructure plan of the Development Scheme.
P14. Roads and intersections are constructed in accordance with geometric designs which provide for safe operations in keeping with the intended function and anticipated traffic levels of the road.	<ul> <li>A14.1 Road construction is in accordance with the following:</li> <li>(a) for rural roads, construction to design standards given in Council guidelines, approved specifications and/or "Rural Road Design"</li> <li>(Austroads 1989); and</li> <li>(b) for other roads, construction to design standards given in Council guidelines and/or approved specifications.</li> <li>(c) Department of Main Roads current standard specifications.</li> </ul>	Yes - complies with the specific outcome	The streets have been designed in accordance with the requirements of the specific outcome and the infrastructure plan of the Development Scheme.

<ul> <li>P15 Roads are constructed with footpath formations appropriate to intended:</li> <li>(a) pedestrian and/or cyclist use;</li> <li>(b) drainage functions; and</li> <li>(c) topography.</li> </ul>	<b>A15.1</b> Footpaths formed in accordance with the <i>Austroads Guide to Traffic Engineering Practice: Part 13 and 14</i> and Table 6.107.3 Pedestrian and Cycle Requirements	Yes - complies with the specific outcome	The need of pedestrians and cyclists are met while considering draining functions on the land and the topograph) reconfigured land.
P16. Development must include water sensitive urban design measures to integrate water supply, wastewater and stormwater and thus ensure protection of the water cycle by minimising wastewater production; minimising impacts on the water cycle, protecting waterway health by improving stormwater quality and reducing site run-off incorporating water reuse infrastructure to maximise recycling opportunities; and Use of alternative water sources.	A16.1 No probable solution is provided.	Yes - complies with the specific outcome	Various water design considerations were addresser in the reconfiguration of lots.
P17. Stormwater runoff resulting from new lots is contained and controlled so that it does not adversely affect either the upstream or downstream built or natural environment.	A17.1 Road and stormwater drainage associated with new lots design complies with the 'Soil Erosion and Sediment Control' Guidelines for Queensland and the Queensland Urban Drainage Manual.	Yes - complies with the specific outcome	Stormwater matters were duly considered prior to the reconfiguration of lots.
P18. Stormwater quality management systems associated with new lots ensure that disturbance to natural stream systems is minimised and stormwater discharge to surface and underground receiving waters does not degrade the quality of the receiving water.	<b>A18.1</b> Road and stormwater drainage associated with new lots design complies with the 'Soil Erosion and Sediment Control' Guidelines for Queensland and the Queensland Urban Drainage Manual 1992.	Yes - complies with the specific outcome	Stormwater matters were duly considered prior to the reconfiguration of lots.
<ul> <li>P19. Water supply and waste water treatment and disposal systems on new lots are designed to:</li> <li>(a) meet the needs of users;</li> <li>(b) ensure health, safety and convenience of the community;</li> <li>(c) be cost-effective over their life cycle;</li> <li>(d) minimise adverse impacts to the environment in the short and long term:</li> </ul>	A19.1 Connection to Council's reticulated water supply and sewerage systems is provided, or A19.2 Where Council's reticulated water supply service is not available, an adequate water supply is provided by way of an approved constant low flow water supply system (rainwater, bore water or both) having a minimum storage capacity of 22500 litres. <b>Note</b> : A report by a suitably qualified engineer may be required to demonstrate	Yes - complies with the specific outcome	Water supply and waste water systems have been addressed to assess the viability, sustainability, and suitability of such systems for the reconfiguration

er within the lot on acceptable measure.) A19.3 New lots are connected to Council's reticulated sewerage system where it services th locality.	ions for reconfiguration of a lot in the Rural Residential, Village, U :reation and Community	Probable Solutions	uß	w lots, streets and A24.1 No probable solution is provided. rk Residential, Village, rk Residential, Open Space and nity Facilities Zones od a strong and e strong and e strong and strong and strong and strong hew and vistas; and street patterns and facilities and facilities and the matching street patterns and facilities and facilitie	w lots, streets and A25.1 No probable solution is provided. In the surrounding by: by: d providing for to existing and to open space
0	rban Residentíal, Park Re	Complies (Yes or No)		Yes - complies with the specific outcome	Yes - complies with the specific outcome
	sidential, Commercial, Industry	Comments		The layout of new lots, streets and roads have been designed in accordance with the requirements of the specific outcome. The infrastructure plan of the Development Scheme portrays the layout of the streets, while the land use plan portrays the lot layouts.	The layout of new lots, streets and roads have been designed in accordance with the requirements of the specific outcome. The infrastructure plar of the Development Scheme

(b) providing for optimum accessibility to community services and facilities.			streets, while the land use plan portrays the lot layouts.
<ul> <li>P26. Street and lot orientation facilitates:</li> <li>(a) siting of buildings to promote efficient solar access and access to breezes,</li> <li>(b) surveillance of footpaths and public open space, and</li> <li>(c) deterrence of crime and vandalism.</li> </ul>	A26.1 No probable solution is provided.	Yes - complies with the specific outcome	CPTED principles have been considered to address the specific outcomes.
P27. The layout facilitates choice in the form of housing likely to be provided on the new lots, without adversely impacting on the character of the immediate locality.	<b>A27.1</b> Where a reconfiguration proposal involves 10 or more lots, lots proposed for dual occupancy, accommodation units or houses on lots less than 600m2 are shown on an overall concept plan and do not exceed 35% of the total number of lots.	Yes - complies with the specific outcome	A range of lot sizes are proposed from approximately 1,000m2 – 10,000m2, thereby offering a wide range of housing choice.
P28. The layout incorporates effective buffering from sensitive or incompatible uses or environmental or scenic values on adjoining or nearby land.	A28.1 The proposed internal road layout provides for dwelling units to be oriented away from the industrial land; and A28.2 Where the proposal is adjacent to existing industry uses, a solid screen fence or landscaped mounding having a minimum height of 2 metres is provided along the full length of any common boundary within the residential land; or A28.3 Where the proposal is adjacent to existing industry uses, a densely planted buffer strip is provided having a minimum width of 10 metres and an average width of 20m which can be effectively maintained.	Yes - complies with the specific outcome	The proposed subdivision ensures buffer zones are implemented to separate land uses.
P29. The layout minimises the need for earthworks, particularly on steep land and can provide safe and efficient access for vehicles.	A29.1 Internal driveways on new lots are not steeper than 12.5% (1 in 8).	Yes - complies with the specific outcome	The proposed subdivision will ensure minimisation of earthworks.
Lot Area and Dimensions			
P30. In proposed new lots are consistent with the intended character of the local area, as expressed through the stated intentions for each of the zones.	A30.1 No probable solution is provided	Yes - complies with the specific outcome	The proposed lots are consister with the intent of the underlying zones of the existing Development Scheme.
P31. Where reconfiguration is by community title, the development	A31.1 No probable solution is provided.	No	Not Applicable- not a communit title.

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maintains the density for the zone, as expressed by either the minimum lot size or density, and new lots are capable of containing a rectangle of 20 x 20 m behind the building setback from the street or internal road.			
Movement Networks 32. The layout ensures high levels of merrial accessibility and external	A32.1 No probable solution is provided.	Yes - complies with the specific outcome	The proposed subdivision provides sufficient accessibility
iternal accessionity and external onnections for pedestrians and cyclists and local vehicles by: a) minimising necessary travel distances eg. community services, commercial acilities or places of employment); b) minimising through traffic on esidential streets; c) restraining vehicle speed on local treets; d) creating a legible street pattern; and e) connecting to and extending an orderly network of sealed roads in the ocality.			and connectivity to pedestrians and cyclists.
<li>f) minimising the use of State controlled oads for local trips.</li>			
33. The layout includes a pedestrian and cyclist network that provides or contributes to convenient and safe links o schools, open space and recreational aclities, shops and other community aclities.	<b>A31.1</b> Pedestrian and cyclist networks provide for the shortest possible connections between and within neighbourhoods and to community facilities, and are overlooked by dwelling units for most of their length, with no major breaks in surveillance	Yes - complies with the specific outcome	The proposed subdivision provides sufficient facilities for pedestrians and cyclists.
<b>35.</b> In Commercial and Industrial zones, new road included in lot layouts provide or convenient access to higher order oads for heavy vehicles and commercial raffic, without introducing through traffic o residential streets.	A35.1 No probable solution is provided.	9 <u>2</u>	Not Applicable

Public Open Space Network			
P36 The layout of new lots contributes to	A36.2 The layout of proposed new lots adjoining	Yes - complies with	Public open space
a public open space network which:	or	the specific outcome	considerations have been
(a) contributes to the legibility and	incorporating:		addressed in the proposed
character of the neighbourhood;	(a) a significant watercourse;		subdivision.
(b) is appropriately located, sized,	(b) a landform of visual significance; or		
shaped and/or developed to satisfy the	(c) a remnant area of significant vegetation;		
local, district and/or metropolitan	and		
recreational needs of the community;	provides for that feature's retention in public open		
(c) is linked to the surrounding open	space, including a corridor having an average		
space system and provides for	width		
convenient pedestrian and cycle	of not less than 50m along Gatton Creek in		
movement;	Withcott.		
(d) has a multi-functional role in providing			
for recreation, and stormwater			
management and environmental care;			
(e) conserves and takes advantage of			
significant landmarks and natural			
features;			
(f) is safe and overlooked by dwelling			
units as far as possible,			
(g) is readily and safely accessible by			
vehicle cycle and pedestrian networks;			
and			
(h) reasonably minimises maintenance			
costs.			

FILE NO. XXXXX

DAxxxxx

### APPLICATION FOR DEVELOPMENT PERMIT FOR RECONFIGURATION OF A LOT FOR THE SUBDIVISION OF 7 INTO 95 ON LAND DESCRIBED AS LOTS 123,124,127,128 AND 132 ON CA3121, LOT 1 ON RP850917 AND LOT 99 ON SP247669 AT 75 PHILPS ROAD, GRANTHAM

Applicant:	Lockyer Valley Regional Council
Property Address:	75 Philps Road, Grantham
Real Property Description:	123,124,127,128 and 132 on CA3121, 1 on RP850917 and Lot 99 on SP247669
Site Area:	177.414 ha
Grantham Scheme Zoning:	Residential Living Rural Residential Recreation and Open Space
Use At Time of Application:	Vacant
Proposed Use:	Subdivision 7 into 95 including 90 residential allotments
Plan Nos:	Survey Plans, prepared by Anywhere Surveys Pty Ltd dated 21-07-2011 and 27-07-2011

### PLANNING OFFICERS (WEST) REPORT

### 1.0 BACKGROUND

On 10 January 2011 a flash flood tore through the Lockyer Valley leaving the entire community devastated by loss of life and loss of property. The devastation centred on areas around Postmans Ridge, Murphys Creek and Grantham, along the Lockyer Creek. The impact of the flooding in the Lockyer Valley was most severely felt in Grantham.

During these devastating floods, large numbers of houses were completely destroyed and severely damaged in the large lot rural residential areas to the south of the railway line. Damage Assessments throughout the Lockyer Valley following the disaster indicate that 10 houses were completely destroyed, 19 houses are beyond repair and 119 have sustained significant damage.

The Council undertook one on one consultation sessions with residents. A resounding response was that residents wanted to stay in Grantham however they wanted to move to higher ground.

Given the need to support a timely rebuilding, on 23 March 2011 the Lockyer Valley Regional Council (Council) resolved "to request that the Premier and Minister for Reconstruction declare Grantham a Reconstruction Area in accordance with section 43 of the *Queensland Reconstruction Authority Act 2011* (QldRA Act)".

On 8 April 2011, Grantham was declared a Reconstruction Area by the *Queensland Reconstruction Authority Regulation 2011*. The declaration establishes a regulatory framework that ensures that any proposed rebuilding efforts and any applicable approval processes are fast-tracked, enabling works to commence quickly and efficiently.

Section 62 of the QldRA Act allows the Authority to make a development scheme for a Reconstruction Area. Following extensive planning and consultation with the Council, community and government agencies, the Proposed Development Scheme for the Grantham Reconstruction Area was prepared and released for public consultation for a period of 30 business days on 11 May 2011, closing on 23 June 2011.

Under section 70 of the QldRA Act, the Authority was required, having regard for the matters raised in submissions, to amend the Proposed Development Scheme where appropriate, and provide it to the Premier and Minister for Reconstruction as a "Submitted Scheme" (Submitted Scheme). The submitted scheme and accompanying submissions report was provided to the Premier on 30 June 2011.

No submitters made representations to the Premier during the representation period and therefore it was recommended that the submitted scheme became the Development Scheme for the Grantham Reconstruction Area.

The Development Scheme for the Grantham Reconstruction Area took effect on 4 August 2011 through the *Queensland Reconstruction Authority Amendment Regulation 2011*.

### 2.0 SUBJECT LAND

The subject land is located on the corner of Philps Road and Boxmoor Street in the Grantham Township. The 436Ha parcel of land was purchased by Council to support the relocation of residents left devastated by the events of 10 January 2011. The entire site contains 18 parcels of land of which nine (9) are subject to this application. The site was previously held in single ownership and was used for grazing. This area subject to this application is 177.41Ha and includes 2.428Ha of closed road transferred to Council by the Authority.

Some urban services are currently available to the site.

### 3.0 PROPOSAL

The proposed application supports the delivery of lots for stage 1 of the Strengthening Grantham project. This project includes the opportunity for residents who are eligible under the Council's relocation policy to participate in the voluntary land ballot process.

The application is for a Development Permit for reconfiguration of a lot to subdivide the subject land into 95 lots. Lot sizes range from 1003m<sup>2</sup> to 1.013Ha with a balance lot of 120Ha. A total of 10.023Ha of new road area is provided, including new access points from Boxmoor Street and Philps Road.

### 2.1 Legislative Requirements

In accordance with section 78 (2) of the QldRA Act, the Development Scheme for the Grantham Reconstruction Area suspends that part of the current Gatton Planning Scheme which previously regulated development within the Reconstruction Area. The Development Scheme does however refer to and relies upon various code provisions of the Gatton Planning Scheme.

The proposed development does not meet the requirements for exempt development under the table of assessment for the Residential Living and Rural Residential zones as a small number of lots do not meet the minimum lot size and a similar a number of lots do not meet the minimum lot frontage. Therefore the proposed development is subject to code assessment as per Rural Residential zone, Residential Living zone and Recreation and Open Space zone within the Development Scheme for the Grantham Reconstruction Area.

No referral agencies were triggered.

### 2.2 Information Request and Response

No information request was issued.

### 3.0 ASSESSMENT

### 3.1 State Planning Policy

No assessment against State Planning Polices was required.

### 3.2 Planning Scheme Overlay

The application required assessment against Potential Bushfire Risk Area Overlay and Steep and Unstable Land Overlay.

The application complies with the provisions of the overlay code.

### 3.3 Reconfiguration of Lot Code

As per the tables of development for the Residential Living Zone and Rural Residential Living Code, Reconfiguration of a Lot is made Code Assessable against the Residential living zone code and the Reconfiguration of a Lot Code. An assessment has been undertaken against this code, as set out below.

### PLANNING OFFICERS (WEST) RECOMMENDATION

Council approve a Development Permit for Reconfiguration of a Lot on lands described as lots 123,124,127,128 and 132 on CA3121, 1 on RP850917 and Lot 99 on SP247669, at 75 Philps Road, Grantham in accordance with the following conditions;

### **Access and Road Works**

		TIMEFRAME
A1	All roads will be designed and constructed in accordance with the, Planning Scheme for the Shire of Gatton (2007), Queensland Streets Design – Guidelines for Subdivisional Streetworks, Austroads Publications, and all relevant Australian Standards.	Prior to occupation
A2	Provision of conduits for underground services being water supply, electricity, gas, telephone cabling or other such utilities is required.	Prior to occupation
Landscapi	ng	
		TIMEFRAME
B1	With the exemption of turf species, no species listed within the Queensland Herbarium's, Invasive Naturalised Plants in Southeast Queensland (top 200 ranked) list is to be used within landscaping. No species declared as a weed with in the Land Protection Act (class 1, 2 &3) is to be used within	Ongoing
	landscaping.	
B2	Where practical Australian natives species occurring from local (South East Queensland) Regional Ecosystems should be utilised.	Ongoing
Environme	nt	
		TIMEFRAME
E1	The subject land must be clear of all declared class 1, 2 and 3 weeds prescribed by the Lands Protection Act, by the end of the operational works stage.	Prior to occupation

### General

		TIMEFRAME
E1	Plans and specifications for all works, or any works required on Council infrastructure, shall be prepared and certified by a Registered Professional Engineer in Queensland. The Registered Professional Engineer in Queensland shall supervise the execution of works, all work detailed on a certificate of supervision, and a copy of the supervision certificate submitted to Council upon completion.	<i>To be completed prior to on maintenance</i>
E2	All above and below ground services potentially affected by the proposed subdivision works shall have alignment and level determined prior to any detailed design work or construction works being undertaken. Any conflicts associated with proposed and existing services shall be forwarded to the appropriate controlling authority by the developer for decision.	Ongoing

		1
E3	All works required pursuant to these terms and conditions shall be undertaken at the developer's expense.	Ongoing
E4	The applicant placing Permanent Survey Mark/s (PSM) in accordance with the regulations under the Survey Co-ordination Act 1952 to Council's requirements and advise the Australian Height Datum level of the mark/s. The PSM/s are to be connected to the cadastral survey unless otherwise approved in writing by Council's Director of Operations.	To be completed prior to plan sealing
E5	Where works are required to be carried out as part of this approval, then the constructing body shall be appointed by the applicant as Principal Contractor under the Workplace Health and Safety Act 1995 and all subordinate legislation, and shall comply with all requirements of the same. Completing and returning Form 34 to the Council shall provide evidence of such appointment.	Ongoing

### **Public Utilities**

		TIMEFRAME
S100 S101	All underground plant installed by public utility providers shall be in accordance with Council's standard detail for Footpath Allocations for Public Utilities as contained in the Council's Planning Scheme Underground power is to be provided to serve new	Ongoing Ongoing
	internal allotments.	
S103	Street lighting shall be provided and installed in accordance with the Australian Standard Code of Practice for public lighting, AS1158.	Ongoing
S104	Where existing features or services are required to be removed or relocated to suit the development then the terms and conditions of the relevant controlling authority are required to be met. The developer is required to contact controlling authorities for determination of conditions prior to any works being undertaken.	Ongoing
S105	Kerb markers shall be installed to identify the location of cross road services eg. water, electricity, telstra, gas etc.	Ongoing

### Stormwater Drainage

TIMEFRAME

U1	Stormwater drainage will conform with part 6.0, Division 8 "Reconfigure a Lot Code" of the Planning Scheme for the Shire of Gatton 2007 and be designed by an RPEQ.	Prior to occupation
U2	Ponding of stormwater shall not occur on the subject land or adjoining allotments.	Ongoing
U3	The Q100 actual and historical local discharge floodlines are to be established and identified and any habitable structure shall have a finished floor level at least 300mm above the highest known floodline.	Prior to occupation
U4	All allotments capable of draining to the road channel shall be provided with approved kerb adapters.	Prior to occupation

### Water and Sewerage

		TIMEFRAME
Z1	Provision of water supply to each allotment designed and constructed in accordance with the Water Supply Code of Australia, WSA 03-2002 Version 2.3. Each allotment shall be supplied with a minimum pressure at the boundary of 220kPa (this may require a pressurised system to supply the higher allotments).	Prior to occupation
Z3	Provision of a sewerage house connection branch to nominated allotments designed and constructed in accordance with the Sewerage Code of Australia, WSA 02-2002, Version 2.3.	Prior to occupation
Z4	The sewerage system shall be connected into the package plant.	Prior to occupation

### Aboriginal and Cultural Heritage

		TIMEFRAME
CH1	Should the operator discover any evidence of heritage place the Cultural Heritage Act 1992 requires that they contact the Queensland Heritage Council for direction immediately.	Ongoing

### **Approved Plan**

		TIMEFRAME
C1	The site must be developed generally in accordance Survey Plan SP247670 and SP247680 prepared by Anywhere Surveys dated 21-07-2011 and 27-7-2011. This plan hereafter shall be known as the "approved plans"	Prior to occupation
C3	The site is approved for 95 lots as defined by the Grantham Reconstruction Area Development Scheme.	Ongoing

### **DEVELOPMENT APPLICATION DECISION NOTICE**

Integrated Planning Act 1997

5 August 2011

Jamie Simmonds Project Director Strengthening Grantham Project PO BOX 82 GATTON QLD 4343

Dear Mr Simmonds

APPLICATION FOR : DEVELOPMENT PERMIT FOR RECONFIGURATION OF A LOT (CODE ASSESSMENT) FOR A SUBDIVISION (7 INTO 95) PROPERTY DESCRIPTION: LOTS 123,124,127,128 AND 132 CA3121, 1 RP850917 AND LOT 99 SP247669 SITUATED AT 75 PHILPS ROAD, GRANTHAM

The Development Application for a Development Permit for Reconfiguration of a Lot was **approved subject to conditions**. The decision was made by delegated authority on 5 August 2011. A copy of the conditions of approval and the approved plans are enclosed.

The following schedule provides all relevant details -

- 1. Approval Type Development Permit for Reconfiguration of a Lot
- 2. Decision Authority Chief Executive Officer
- 3. Referral Agencies N/A
- 4. Codes Requiring Self-Assessment N/A
- 5. Further Development Permits Required N/A
- 6. Submissions N/A
- 7. Conditions

Assessment Manager's conditions	As per attached Schedule 1
Concurrence Agency's conditions	N/A

### SCHEDULE 1

FILE NO. xxxxxxx

### DAxxxxxxxx

### APPLICATION FOR DEVELOPMENT PERMIT FOR RECONFIGURATION OF A LOT FOR THE SUBDIVISION OF 7 INTO 95 ON LOTS 123,124,127,128 AND 132 ON CA3121, LOT 1 ON RP850917 AND LOT 99 ON SP247669 AT 75 PHILPS ROAD, GRANTHAM

Applicant:

Property Address:

**Real Property Description:** 

Site Area:

Grantham Reconstruction Area Development Scheme Zoning: 75 Philps Road, Grantham

Lockyer Valley Regional Council

123,124,127,128 and 132 on CA3121, 1 on RP850917 and Lot 99 on SP247669

177.414ha

Residential Living Rural Residential Recreation and Open Space

**Use At Time of Application:** 

**Proposed Use:** 

Plan Nos:

Vacant

Subdivision of 7 into 95 lots

Survey Plans SP247670 and SP247680, prepared by Anywhere Surveys dated 21-07-2011 and 27-07-2011

### Access and Road Works

		TIMEFRAME
A1	All roads will be designed and constructed in accordance with the, Planning Scheme for the Shire of Gatton (2007), Queensland Streets Design – Guidelines for Subdivisional Streetworks, Austroads Publications, and all relevant Australian Standards.	Prior to occupation
A2	Provision of conduits for underground services being water supply, electricity, gas, telephone cabling or other such utilities is required.	Prior to occupation
Landscapi	ng	
		TIMEFRAME
B1	With the exemption of turf species, no species listed within the Queensland Herbarium's, Invasive Naturalised Plants in Southeast Queensland (top 200 ranked) list is to be used within landscaping.	Ongoing
	Protection Act (class 1, 2 &3) is to be used within	

Application Nu	umber: DAxxxx	Ref No: xxxxxxx
	landscaping.	
B2	Where practical Australian natives species occurring from local (South East Queensland) Regional Ecosystems should be utilised.	Ongoing
Environme	ent	
		TIMEFRAME
E1	The subject land must be clear of all declared class 1, 2 and 3 weeds prescribed by the Lands Protection Act, by the end of the operational works stage.	Prior to occupation
General		
		TIMEEDAME
E1	Plans and specifications for all works, or any works required on Council infrastructure, shall be prepared and certified by a Registered Professional Engineer in Queensland. The Registered Professional Engineer in Queensland shall supervise the execution of works, all work detailed on a certificate of supervision, and a copy of the supervision	To be completed prior to on maintenance
	certificate submitted to Council upon completion.	
E2	All above and below ground services potentially affected by the proposed subdivision works shall have alignment and level determined prior to any detailed design work or construction works being undertaken. Any conflicts associated with proposed and existing services shall be forwarded to the appropriate controlling authority by the developer for decision.	Ongoing
E3	All works required pursuant to these terms and conditions shall be undertaken at the developer's expense.	Ongoing
E4	The applicant placing Permanent Survey Mark/s (PSM) in accordance with the regulations under the Survey Co-ordination Act 1952 to Council's requirements and advise the Australian Height Datum level of the mark/s. The PSM/s are to be connected to the cadastral survey unless otherwise approved in writing by Council's Director of Operations.	To be completed prior to plan sealing
E5	Where works are required to be carried out as part of this approval, then the constructing body shall be appointed by the applicant as Principal Contractor under the Workplace Health and Safety Act 1995 and all subordinate legislation, and shall comply with all requirements of the same. Completing and returning Form 34 to the Council shall provide evidence of such appointment.	Ongoing

### **Public Utilities**

		TIMEFRAME
S100	All underground plant installed by public utility providers shall be in accordance with Council's standard detail for Footpath Allocations for Public Utilities as contained in the Council's Planning Scheme	Ongoing
S101	Underground power is to be provided to serve new internal allotments.	Ongoing
S103	Street lighting shall be provided and installed in accordance with the Australian Standard Code of Practice for public lighting, AS1158.	Ongoing
S104	Where existing features or services are required to be removed or relocated to suit the development then the terms and conditions of the relevant controlling authority are required to be met. The developer is required to contact controlling authorities for determination of conditions prior to any works being undertaken.	Ongoing
S105	Kerb markers shall be installed to identify the location of cross road services eg. water, electricity, telstra, gas etc.	Ongoing
Stormwate	er Drainage	
U1	Stormwater drainage will conform with part 6.0, Division 8 "Reconfigure a Lot Code" of the Planning Scheme for the Shire of Gatton 2007 and be designed by an RPEQ.	TIMEFRAME Prior to occupation
U2	Ponding of stormwater shall not occur on the subject land or adjoining allotments.	Ongoing
U3	The Q100 actual and historical local discharge floodlines are to be established and identified and any habitable structure shall have a finished floor level at least 300mm above the highest known floodline.	Prior to occupation
U4	All allotments capable of draining to the road channel shall be provided with approved kerb adapters.	Prior to occupation
Water and	Sewerage	
		TIMEFRAME
Z1	Provision of water supply to each allotment designed and constructed in accordance with the Water Supply Code of Australia, WSA 03-2002 Version 2.3. Each	Prior to occupation

allotment shall be supplied with a minimum pressure

at the boundary of 220kPa (this may require a

TIMEFRAME

pressurised system to supply the higher allotments).

- **Z3** Provision of a sewerage house connection branch to *Prior to occupation* nominated allotments designed and constructed in accordance with the Sewerage Code of Australia, WSA 02-2002, Version 2.3.
- **Z4** The sewerage system shall be connected into the package plant. *Prior to occupation*

### Aboriginal and Cultural Heritage

CH1 Should the operator discover any evidence of heritage place the Cultural Heritage Act 1992 requires that they contact the Queensland Heritage Council for direction immediately.

### **Approved Plan**

C1	The site must be developed generally in accordance	Prior to occupation
	Survey Plan SP247670 and SP247680, prepared by	
	Anywhere Surveys dated 21-07-2011 and 27-07-	
	2011. This plan hereafter shall be known as the	
	"approved plan"	
C3	The site is approved for 95 lots.	Ongoing

### FURTHER ADVICE TO THE APPLICANT

- 1. The use must not commence operations until all conditions of this approval are complied with.
- 2. All works associated with this approval may not start until all subsequent approvals have been obtained, and their conditions complied with.
- Any additions or modifications to the approved use (not covered in this approval) may be subject to further application for development approval. To make this determination, please contact Council's Planning and Environment Section.
- 4. The Relevant Period for this Development Permit is two (2) years. This timeframe starts from the date this approval effect (if there are no other Development Approvals required) or (if other Development Approvals are required), the day after they are approved.
- 5. Each further Development Permit (e.g. Building Works) required as a result of this approval, must be made to a local government or private certifier within 2 years of the day the last related approval takes effect.

### GENERAL BUILDING ADVICE

- 1. A Certificate of Classification (that reflects proposed use) must be applied for and obtained prior to occupation and use of all structures associated with this approval.
- 2. All boundary clearances and setback distances must be shown on any site plan submitted with any building application.
- 3. Consideration should be given to Energy Efficiency at the design stage prior to submission of the formal Building Application. Such matters as the orientation of the building, use of high density/mass materials, insulation, marrying the construction with the environment, use of colours, micro-climate, ventilation, prevailing breezes and use of solar or energy saving devices, should be taken into account.
- 4. The proposed form of full approved termite treatment for all structures must be indicated in writing and submitted with the Development Application for Building Works. This may require the applicant to obtain technical details of the product from the supplier.

## TEMPORARY OPEN LEVEL CROSSING – GRANTHAM







## **Temporary State Planning Policy 2/11**

Planning for stronger, more resilient floodplains September 2011

### **Sustainable Planning Act 2009**

## Temporary State Planning Policy Planning for stronger, more resilient floodplains September 2011

### Making the temporary State planning policy

This temporary State planning policy was made by the Honourable Annastacia Palaszczuk MP, Acting Minister for Local Government under Chapter 2, Part 4, Division 3 of the Sustainable Planning Act 2009.

#### Commencement

This temporary State planning policy takes effect on 14 November 2011.

Prepared by:

Queensland Reconstruction Authority

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September 2011

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Natural Hazard Management Area (Flood)

## **Explanatory statement**

### **Planning for Stronger, More Resilient Floodplains**

During July to December 2010, extreme rainfall was experienced across large parts of eastern Australia, with Queensland experiencing its wettest Spring on record. As a result, Queensland's catchment areas were significantly saturated prior to major rain events that caused severe flooding throughout Queensland between November 2010 and April 2011.

Most of Queensland's major towns and cities are located on a floodplain, both inland and coastal. In order to ensure the resilience of these town and cities, and the subsequent safety of their residents from threats of future flood events, these towns and cities must, to the greatest extent possible, be capable of withstanding or minimising the effects of future flood events.

Development within Queensland is principally regulated by local government planning schemes which provide guidelines for acceptable types of development within the boundaries of local government areas. By understanding how floodplain systems operate, future development within Queensland can incorporate measures aimed at ensuring that planning and development continues, whilst minimising the effects of future flood events by incorporating specific and consistent floodplain management measures into existing planning schemes where appropriate.

Temporary State Planning Policy 2/11: Planning for stronger more resilient floodplains (the TSPP) has been developed to support the designation of Natural Hazard Management Areas (Flood). Through the identification of NHMA (Flood) Local Governments can amend their existing planning schemes and incorporate planning scheme provisions to regulate assessable development within the NHMA (Flood).

### **Outcome sought by the Temporary SPP**

This TSPP seeks to ensure that development is planned, designed and constructed to minimise potential flood damage to towns and cities and to improve safety of individuals and communities.

This outcome supports the objective of the Sustainable Planning Act 2009.

### **Effect of the Temporary SPP**

The effect of the TSPP is to:

- Suspend the effect of paragraphs A3.1 and A3.2 of Annex 3 of State Planning Policy 1/03 (the SPP) Mitigating the Adverse Impacts of Flood, Bushfire and Landslide
- Make a Temporary State Planning Policy dealing with and giving effect to the matters suspended in paragraphs A3.1 and A3.2 of Annex 3 of State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide by providing local government with information necessary to determine the Natural Hazard Management Area (Flood) and then adopt an associated overlay map(s) and code by way of an amendment to an existing planning scheme.

### **Implementing the Temporary SPP**

The TSPP is to be implemented by:

- Allowing a local government to amend existing planning schemes to incorporate a Natural Hazard Management Area (Flood) in accordance with Annex 1, and
- Informing strategic land use planning decisions for the preparation of new Sustainable Planning Act 2009 planning schemes

The TSPP will influence planning and development decisions wholly or partially within a Natural Hazard Management Area (Flood).

The TSPP is supported by the Guideline: Planning for Stronger, More Resilient Floodplains, which gives further information and advice on the implementation of this TSPP.

The TSPP is supported by an extensive mapping process evaluating floodplains across Queensland.

## 1. Policy outcome

### Policy outcome sought by the Temporary SPP

- 1.1 State Planning Policy 1/03 Mitigating the Adverse Impacts of Flood, Bushfire and Landslide requires the identification of natural hazard management areas. The identification of the natural hazard management area for flood (the Natural Hazard Management Area (Flood)) is dependent upon a local government adopting a flood event for the management of development in a particular locality.
- 1.2 To promote a better understanding of floodplains via a correlation between land use planning and floodplain management, the State government has prepared a number of tools which may be adopted by a local government to assist in identifying the Natural Hazard Management Area (Flood), and in regulating development partially or wholly within a floodplain.

## 2. Application of the Temporary SPP

### State planning policy and State planning policy guideline

- 2.1 The Temporary State Planning Policy: Planning for Stronger, More Resilient Floodplains is a statutory instrument under the *Sustainable Planning Act 2009.*
- 2.2 The Temporary State Planning Policy Guideline: Planning for Stronger, More Resilient Floodplains (TSPP guideline) provides advice about implementing the TSPP and is declared to be extrinsic material under the *Statutory Instruments Act 1992*, s. 15.
- 2.3 When designating land for community infrastructure, a Minister or local government must consider the development outcomes set out in the code in Annex 1 of this policy.
- 2.4 Terms used in the TSPP, code and TSPP guideline have the same meaning as defined in the *Sustainable Planning Act 2009* and the *Sustainable Planning Regulation 2009*. The glossary explains particular words used in the SPP and the SPP guideline.

### Areas to which the Temporary SPP applies

2.5 The TSPP applies to all Local Government Areas.

## 3. Making or amending a planning instrument

### Achieving the policy outcome through a local planning instrument

3.1 A local planning instrument achieves the policy outcome in section 1.1 to 1.2 of this TSPP if it results in an amendment to a local government planning instrument, or a new local government planning instrument, which designates a Natural Hazard Management Area (Flood) as per Annex 1.

### 4. Information and advice about the Temporary SPP

### Sources of information and advice

- 41. The Queensland Reconstruction Authority and the Department of Environment and Resource Management (DERM) can provide advice about implementing and interpreting the TSPP, and on reflecting the TSPP in a planning instrument.
- 4.2 The Guideline contains further information about the maps and code.
- 4.3 The Department of Local Government and Planning can provide advice about reflecting the TSPP in a local planning instrument, and the operation of the Integrated Development Assessment System (IDAS).

### **Operation of the Temporary SPP**

4.4 The TSPP will operate for up to 12 months.

## Annex 1

### Natural Hazard Management Area (Flood)

Where proposing amendments to an existing planning instrument under the Sustainable Planning Act 2009, a Natural Hazard Management Area (Flood) is:

- 1) land inundated by a Defined Flood Event (DFE) and identified in a planning instrument, or
- 2) the Interim Floodplain Assessment Overlay mapping and Model Code provided by the Queensland Reconstruction Authority, or
- 3) the Interim Floodplain Assessment Overlay mapping and Model Code as amended by the relevant Local Government.

Where proposing a new planning instrument under the Sustainable Planning Act 2009, a Natural Hazard Management Area (Flood) is:

- 1) land inundated by a Defined Flood Event (DFE) and identified in a planning instrument, or
- 2) the Interim Floodplain Assessment Overlay mapping and Model Code provided by the Queensland Reconstruction Authority, or
- 3) the Interim Floodplain Assessment Overlay mapping and Model Code as amended by the relevant Local Government.





Digital Cadastral Database (DCDB) Supplied by Natural Resources and Mines

June 2005

Refer to Planning Policy No. 1 for descriptions of lots affected by Fire Hazards

bushfire hazard management areas in the Shire.

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Kilometres

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## **Statutory Guideline 02/09**

# Making and amending local planning instruments

A procedural and best practice guideline of the process for

- making or amending a planning scheme
- making or amending a planning scheme policy and

Toward

making a temporary local planning instrument

under the Sustainable Planning Act 2009

12 July 2011

Tomorrow's Queensland: strong, green, smart, healthy and fair



Looking forward and delivering now--integrated planning, strong local government and development for a growing state.

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Any references to legislation are not an interpretation of the law. They are to be used as a guide only. The information in this publication is general and does not take into account individual circumstances or situations. Where appropriate, independent legal advice should be sought.

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# About this guideline

### The purpose of this guideline

This guideline has been prepared by the Minister under section 117 of the *Sustainable Planning Act 2009* (SPA). This guideline sets out the minimum requirements which must be followed by a local government for making or amending a local planning instrument, in accordance with section 117 of the SPA. However, it does not apply to the amendment of a planning scheme to include a structure plan.

This guideline also describes the process which the Minister must follow if acting under Chapter 3, Part 6 of the SPA.

In accordance with Section 119 of the SPA, substantial compliance with the guideline is required.

### Abbreviations

Schedule 1 provides a list of abbreviations used within the guideline.

### Definitions-the glossary

The glossary in Schedule 2 defines particular words used in this guideline. Other terms used in this guideline have the meaning given in the SPA.

## Objectives and outcomes of the guideline

This guideline has been prepared mainly for practitioners directly involved in preparing or amending local planning instruments under the SPA. It may also increase non-experts understanding of the policy preparation and decision-making processes when making a local planning instrument.

This guideline aims for local planning instruments to be prepared using accountable and efficient processes. More specifically, this guideline identifies the process that is required to develop or amend a local planning instrument and the roles and responsibilities of those involved in the process.

The objectives of this guideline are for planning instruments to be developed:

- in a timely manner, therefore retaining currency and relevance when adopted
- · using resources efficiently and effectively
- in consultation with state agencies and the public, if required, for making a particular local planning instrument.

## How to use this guideline

This guideline prescribes the processes for:

- making or amending planning schemes (other than an amendment to a planning scheme to include a structure plan)
- making or amending planning scheme policies
- · making a temporary local planning instrument.

The guideline contains mandatory requirements which must be followed when making or amending a local planning instrument. Notes are provided to give guidance about how the mandatory requirements may be achieved. While the notes are not mandatory, complying with the notes will assist in achieving the objectives of this guideline. It should be noted that the Minister has the ability to permit local governments not to undertake certain of these minimum actions, in particular circumstances.

Local governments may use additional processes to the mandatory requirements of the guidelines in developing their local planning instruments, provided those additional processes do not conflict with this guideline.

Performance indicator timeframes are identified for a number of steps. These timeframes are not mandatory—they are a best practice performance guide only.

# Part 1—Making and amending a planning scheme

### What is a planning scheme?

A planning scheme under the SPA is a local planning instrument that provides for development to be planned and undertaken in a strategic way encompassing the entire local government area. They are an effective tool at the local level to achieve the purpose of the SPA. They take a strategic view of an area and incorporate site provisions, such as zones and codes, to manage growth and change in the local government area.

A planning scheme can be created where no planning scheme currently exists or to replace an existing planning scheme where changes needed to the existing scheme are so significant that a new scheme is required. For example, the amalgamation of two or more local government areas may result in the preparation of a new planning scheme for the amalgamated local government area.

The planning scheme must be reviewed periodically under the SPA to ensure that it responds appropriately to changes at a local, regional and state level. A planning scheme can be amended from time to time to improve the way it works, bring it into line with changed circumstances in the local government area or to make it consistent with new state policy.

## Types of amendments to planning schemes

For the purposes of this guideline, amendments to planning schemes have been categorised into three categories:

- · administrative amendment
- minor amendment
- major amendment.

#### Administrative amendments

An *administrative amendment* to a planning scheme is an amendment that corrects or changes:

- (a) an explanatory matter about the planning scheme
- (b) the format or presentation of the planning scheme
- (c) a spelling, grammatical or mapping error in the planning scheme
- (d) a factual matter incorrectly stated in the planning scheme
- (e) a redundant or outdated term

- (f) inconsistent numbering of provisions in the planning scheme
- (g) cross-references in the planning scheme.

An administrative amendment to a planning scheme includes:

 (a) amending the planning scheme to reflect an amendment to the mandatory components of the standard planning scheme provisions (SPSP) or an amendment to a non-mandatory or optional component of the SPSP used in the planning scheme

Example for paragraph (1)—a use definition of the SPSP that is already included in a local government planning scheme.

(b) amending the planning scheme to include a statement that a state planning instrument, or part of one, is appropriately reflected in the planning scheme, if the Minister has advised the local government that the Minister is satisfied that the planning scheme reflects the state planning instrument.

#### **Minor amendments**

A minor amendment to a planning scheme is an amendment that:

- (a) the Minister is satisfied reflects a current development approval, a master plan for a declared master planned area or an approval under other legislation
- (b) the Minister is satisfied:
  - (i) reflects a change that is directly responding to a regional plan for a designated region that applies in the local government area; or
  - (ii) reflects a state planning policy, or part of a state planning policy; or
  - (iii) reflects changes to the planning scheme in response to a Ministerial direction if in the Minister's opinion, the subject matter of those changes involved adequate public consultation; or
  - (iv) has involved adequate consultation with the public and the state.

#### Major amendments

A *major amendment* is an amendment that is not a minor amendment or an administrative amendment.

# Ministerial notice excusing compliance with steps required by this guideline for the making and amending a planning scheme

The Minister may by written notice advise a local government that it need not undertake a step otherwise required by this guideline for making and amending a planning scheme. However, the Minister may not excuse the following steps:

- (a) Step 1; or
- (b) Step 2.1; or
- (c) Step 6 (in the case of making a planning scheme only); or
- (d) Step 7 (in the case of making a planning scheme only); or
- (e) Steps 8.1 and 8.3 (in the case of making a planning scheme only); or
- (f) Step 9.3 (in the case of making a planning scheme only); or
- (g) Step 10.

The Minister may only give a written notice to the local government if the Minister is satisfied that:

- (a) significant planning work has been undertaken by the local government (or an entity working on behalf of the local government); and
- (b) requiring the local government to comply with all of the steps in this guideline would result in a repetition of process.

When issuing a written notice varying the steps of this guideline, the Minister may give any direction or impose any condition on the local government that the Minister considers necessary in the circumstances to progress the making or amendment of the planning scheme.

The written notice to the local government must state the following:

- (a) the name of the relevant local government; and
- (b) details about the proposed planning scheme or proposed planning scheme amendment; and
- (c) the steps of this guideline that the local government is not required to undertake; and
- (d) the reasons for the Minister's decision.

Where the Minister advises a local government that steps identified within this guideline need not be undertaken, the Minister must, as soon as practicable, publish a notice at least once in a newspaper circulating in the local government's area and

on the Department of Local Government and Planning's website. The notice must state the following:

- (a) that the Minister has given a notice under this guideline advising the local government that certain steps of this guideline do not apply to the local government; and
- (b) details about the proposed planning scheme or proposed planning scheme amendment to which the advice relates; and
- (c) the steps of this guideline that the local government is not required to undertake; and
- (d) the reasons for the Minister's decision.

# The process for making or amending a planning scheme



Figure 1: Summary of the process for making or amending (major, minor or administrative) a planning scheme

This part describes the process (Figure 1) for making or amending a planning scheme. It applies to:

- (a) making a planning scheme, including making a priority infrastructure plan; and
- (b) making a major amendment to a planning scheme; and
- (c) making a minor amendment to a planning scheme; and
- (d) making an administrative amendment to a planning scheme.

In this guideline, a reference to making a planning scheme includes making and amending a planning scheme, unless otherwise stated.

#### Stage 1 Planning and preparation stage

Step 1.	Local government proposes to prepare a planning scheme or planning
	scheme amendment

Responsible entity	Processes to which this step applies	Performance indicator timeframe
Local government	<ul> <li>Making a planning scheme</li> <li>Major amendment</li> <li>Minor amendment</li> <li>Administrative amendment</li> </ul>	Start of process

1.1. The local government must decide to prepare a planning scheme or planning scheme amendment.

#### Step 2. Local government prepares the draft planning scheme

Responsible entity	Processes to which this step applies	Performance indicator timeframe
Local government	<ul> <li>Making a planning scheme</li> <li>Major amendment</li> <li>Minor amendment</li> <li>Administrative amendment</li> </ul>	<ul> <li>12 months</li> <li>6 months</li> <li>35 business days</li> <li>35 business days</li> </ul>

2.1. The local government must prepare the draft planning scheme or planning scheme amendment.

#### Note on state consultation

When preparing a proposed planning scheme, consultation and liaison between local government and state agencies should be undertaken early in the plan-making

process. This should be supported by ongoing communication and collaboration between local and state government officers.

The SPA identifies matters which the local government must address or consider when making or amending a planning scheme. This includes matters which are of a state interest.

State entities have a role in assisting local governments in preparing their planning scheme. That role includes assisting in the development of the planning scheme strategic framework to ensure state and regional interests are appropriately integrated. It also involves formal state interest reviews, where the state government reviews local government integration of state interests in a planning scheme.

When providing advice to local governments, state agencies are responsible for providing concise and consistent advice on how planning issues regarding a state interest can be satisfactorily addressed in a proposed local planning scheme.

To assist local governments, state agencies may develop internal guides, model planning scheme codes or other information/operational material and make these available to local governments to help them achieve state interest outcomes in local planning instruments.

A proposed planning scheme needs to be well advanced in its development by the time it is submitted to the state for a state interest review. Early and ongoing consultation with state agencies prior to the first state interest review is a key tool to ensure that state interests are identified and integrated early, leading to better planning and procedural outcomes.

The intended outcomes of consultation between local and state governments are:

- State interests are integrated into the proposed planning scheme early at the conceptual and drafting stages (particularly the development of the strategic framework of a new planning scheme);
- local and state governments identify issues early and have sufficient time and scope to determine an appropriate response to the issue;
- to inform studies which will be undertaken as part of the plan making process;
- to obtain information from state agencies which can be included into the proposed planning scheme, for example, mapping; and
- local and state government officers are familiar with the structure and content of the proposed planning scheme and of how matters are addressed by the proposed scheme prior to the formal review of the planning scheme by the state.

As a result, early and ongoing consultation should lead to:

- a more streamlined process for making or amending a planning scheme, particularly at state interest review stages;
- greater use of available resources and avoiding duplication;

- build collaborative relationships between local and state government officers to achieve planning outcomes; and
- build support between local and state government for the final planning document.

Techniques that local governments may employ to foster communication with state agencies include:

- holding state agency workshops;
- identifying individual contacts within agencies and forming an ongoing working group with regular meetings and updates;
- using staff exchange programs, embedding state agency staff in local government offices to assist drafting at relevant stages of the plan development process; and
- gaining awareness of the state planning instruments program and following the development of new state planning instruments with the lead state agencies.

#### Note on public and stakeholder consultation

The local government may choose to undertake public and stakeholder consultation when developing a new planning scheme or making an amendment, particularly a major amendment to a planning scheme.

There are many benefits to having early consultation with the public and stakeholders when preparing planning schemes, such as early identification of issues and community values, and greater community ownership of the final plan.

Although minimum timeframes are required by the SPA, local governments have flexibility to choose suitable consultative processes and the length of time consultation occurs.

Some examples of alternative consultation methods include:

- newspaper advertisements;
- radio advertising or radio interviews;
- public consultation events;
- displays in shopping centres;
- public meetings;
- information days; and
- targeted stakeholder workshops.
- 2.2. After preparing the draft planning scheme, the local government must:
  - (a) if making a new planning scheme or a major amendment to a planning scheme—write to the Minister requesting a first state interest review of the planning scheme or planning scheme amendment and the Minister's agreement to publicly notify the planning scheme or planning scheme amendment; or
  - (b) if making a minor amendment—write to the Minister seeking the Ministers' agreement for the proposed amendment to be adopted; or
  - (c) if making an administrative amendment-proceed to Step 10.

Step 3.	Information	required by	y the Minister
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Responsible entity	Processes to which this step applies	Performance indicator timeframe
Local government	<ul><li>Making a planning scheme</li><li>Major amendment</li></ul>	
	Minor amendment	

- 3.1. If making a planning scheme or making a major or minor amendment to a planning scheme, the local government must submit an electronic copy and a hard copy of the proposed planning scheme or amendment to the Minister in the format identified by the Department of Local Government and Planning.
- 3.2. If making a planning scheme or a major amendment to a planning scheme, the local government must also give the Minister:
  - (a) a written statement about the extent and outcomes of any consultation undertaken with state agencies and the public in preparing the draft planning scheme or amendment; and
  - (b) a written statement about how the proposed planning scheme or amendment coordinates and integrates the state and regional dimensions of matters dealt with by the planning scheme or amendment; and
  - (c) a written statement about how the proposed planning scheme or amendment reflects relevant state planning instruments; and
  - (d) any background studies or reports that the local government considers may assist the Minister in carrying out the state interest review.
- 3.3. If the local government considers that the proposed amendment is a minor amendment, the local government must provide written information to the Minister about why the local government considers the amendment is a minor amendment.

#### Note on information requirements from local government

The purpose of this step is to ensure that matters which the Minister will consider when making decisions regarding the proposed planning scheme or amendment are clearly articulated by the local government, facilitating a timely and efficient assessment process by the Minister.

In particular, the information provided should:

- clearly identify the differences between the existing planning scheme and the proposed planning scheme and amendment; and
- clearly identify why changes have occurred and what issue the changes respond to.

If a first state interest review is required, the local government may be required to supply multiple copies of information to the Minister for distribution to state agencies involved in the first state interest review. Prior to sending their submission, local government should contact their regional contact from the Department of Local Government and Planning to confirm any information requirements for the first state interest review.

If there is insufficient or inadequate information or insufficient copies of information for the Minister to assess the proposed planning scheme or amendment for first state interest review, the Minister may need to delay commencement of the review until satisfied that all information is provided.

#### Step 4. Minister considers a minor amendment

Responsible entity	Processes to which this step applies	Performance indicator timeframe
Minister	Minor amendment	

- 4.1. If the Minister receives written information under Step 3.3, the Minister must consider the proposed amendment and advise the local government in writing that:
  - (a) if the Minister is satisfied the amendment is a minor amendment:
    - (i) the local government may adopt the proposed minor amendment, with or without conditions, and proceed to Step 10; or
    - (ii) the local government may not proceed further with the minor amendment; or
  - (b) if the Minister is satisfied that the amendment is a major amendment the process for making a major amendment must be followed.
- 4.2. If the Minister advises the local government under Step 4.1(b), the local government must provide the written information mentioned in Step 3.2 before the Minister will undertake Step 5.

#### Stage 2 First state interest review

# Step 5. Minister considers proposed planning scheme for adverse effects on state interests

Responsible entity	Processes to which this step applies	Performance indicator timeframe
Minister	<ul> <li>Making a planning scheme</li> <li>Major amendment</li> </ul>	<ul> <li>40 business days for state agencies to consider the proposed planning scheme or amendment</li> </ul>

5.1. This step only applies for making a planning scheme or a major amendment of a planning scheme.

5.2. After receiving the information specified in Step 3, the Minister must consider whether or not state interests would be adversely affected by the proposed planning scheme or amendment.

#### Note on first state interest review

The state interest review enables the Minister to review a proposed planning scheme or major amendment to consider whether state interests would be adversely affected by the proposal.

The performance indicator timeframe for state agencies to review the planning scheme or major amendment and provide a response to the Minister is 40 business days.

The purpose of this timeframe is to ensure that state interest reviews are carried out in a timely and efficient manner.

Liaison between local and state government is expected to have commenced prior to this stage of the proposed planning scheme. As such, state agencies and local government should have a high level of understanding of how state interests have been reflected in the proposed planning scheme and of any potential or outstanding issues, prior to commencement of the state interest review.

State agencies and local governments are encouraged to liaise directly to discuss matters regarding state interests in the review period. State agencies should also liaise directly with other state agencies to coordinate their department's interests.

- 5.3. After carrying out the state interest review, the Minister must advise the local government in writing that it may:
  - (a) notify the proposed planning scheme or amendment; or
  - (b) notify the proposed planning scheme or amendment subject to complying with conditions imposed by the Minister; or
  - (c) not proceed further with the proposed planning scheme or amendment.

#### Stage 3 Public consultation

# Step 6. Local government notifies the proposed planning scheme or amendment and commences public consultation

Responsible entity	Processes to which this step applies	Performance indicator timeframe
Local government	<ul><li>Making a planning scheme</li><li>Major amendment</li></ul>	<ul> <li>45 business days (incorporating 30 business days public consultation)</li> </ul>

- 6.1. This step applies for making a planning scheme or making a major amendment to a planning scheme if the Minister has advised the local government under Step 5.3(a) or (b).
- 6.2. Before publicly notifying the proposed planning scheme or amendment, the local government must comply with any condition imposed by the Minister under Step 5.3.
- 6.3. The local government must carry out public consultation about the proposed planning scheme or amendment for a period (the consultation period) of at least 30 business days.
- 6.4. The local government must place a notice in a locally circulating newspaper and on the local government's website stating:
  - (a) the name of the local government; and
  - (b) for a major amendment to a planning scheme:
    - (i) the purpose and general effect of the proposed amendment; and
    - (ii) the location details of the area where the proposed amendment applies, if it only relates to part of the planning scheme area; and
  - (c) a contact telephone number for information about the proposed planning scheme or amendment; and
  - (d) where the proposed planning scheme or amendment is available for inspection and purchase; and
  - (e) that written submissions about any aspect of the proposed planning scheme or amendment may be made to the local government by any person; and
  - (f) the period during which the submissions may be made; and
  - (g) the requirements for making a properly made submission.

#### Note on consultation

The consultation period seeks to engage the community in the development of the new or amended planning scheme and provide them opportunity to input to its development. Public consultation ensures that a range of views and perspectives are

taken into account, widening the perspective of drafters and bringing new ideas for how an area could be planned.

Notification informs people of the making of a proposed planning scheme or amendment in their local government area. It also announces that the local government is seeking views and information from the community on the proposed planning scheme or amendment. A public notice in the newspaper and on the local government's website is the minimum requirement for public consultation. Local governments are encouraged to develop and extend their public consultation efforts to maximise opportunity for proactively engaging with the community.

- 6.5. During the consultation period, the local government must display a copy of the notice in an obvious place in the local government's public office and have a copy of the proposed planning scheme or amendment available for viewing and purchase.
- 6.6. The notice and proposed planning scheme or amendment must also be available for download on the local government's website.

Responsible entity Processes to which this step applies		Performance indicator timeframe	
Local government	Making a planning scheme	• 55 business days	
	Maior amendment	<ul> <li>45 business days</li> </ul>	

#### Step 7. Local government reviews submissions and decides how to proceed

- 7.1. This step applies for making a planning scheme or making a major amendment to a planning scheme.
- 7.2. The local government must consider every properly made submission about the proposed planning scheme or amendment.
- 7.3. After considering the submissions, the local government must:
  - (a) advise persons in writing who made a properly made submission about how the local government has dealt with the submissions; and
  - (b) give the Minister a written notice containing a summary of matters raised in the properly made submissions and stating how the local government dealt with the matters.
- 7.4. After considering the submissions, the local government may make changes to the proposed planning scheme or amendment to:
  - (a) address issues raised in a properly made submission; or
  - (b) amend a drafting error; or
  - (c) address new or changed planning circumstances or information.

- 7.5. If the local government changes the proposed planning scheme or amendment and the local government is satisfied that the change results in the proposed planning scheme or amendment being significantly different to the version released for public consultation, the local government must repeat Step 6.
- 7.6. Despite Step 7.5, the consultation may be limited to seeking comments on only those aspects of the planning scheme or amendment which have changed.

#### Note on changes to a proposed planning scheme

It is reasonably expected that some changes can be made to the draft planning scheme through the local government's assessment of public submissions and additional matters outlined under Step 7.3, and that those changes may affect some individuals and stakeholders.

However, the planning scheme preparation process also requires the public to have opportunity to provide comment on proposals which may affect their land use rights.

If changes have been made to the proposed planning scheme or amendment that has been released for public consultation, the local government must determine whether those changes result in the proposed planning scheme being significantly different to the proposed planning scheme that was released publicly for public comments. If changes have resulted in the proposed planning scheme or amendment being significantly different, additional public consultation is warranted as the public has not had the opportunity to comment on proposals which may impact on them directly or on the community.

In determining whether the proposed planning scheme is significantly different to the version which was released for public consultation, the local government should consider the change in terms of its intent, extent and affect on both the land use outcomes as well as assessment requirements on individuals. In making the determination, the local government should consider the following:

- has the change affected a material planning issues, such as a policy position?
- has the change affected a significant proportion of the area covered by the proposed planning scheme?
- has the change affected a significant proportion of land owners in the area covered by the proposed planning scheme?
- has the change affected a matter which is of widespread public interest throughout the local government area?
- has the change altered the level of assessment from that released for public consultation?
- could it be said that the proposed planning scheme is quite a different plan to that which was released for public consultation?

A change which affects any one person or a group of individuals' rights over land does not necessarily mean that the change is significant.

If the local government considers that the proposed planning scheme or amendment is significantly different to the version released for public consultation, it must undertake additional consultation. This step provides that local government may undertake a targeted consultation process involving only those matters which have significantly changed.

The local government must consider the affect of the changes on the proposed planning scheme or amendment on state interests to ensure they will not be adversely affected.

- 7.7. After complying with Steps 7.1 to 7.6, the local government must decide to:
  - (a) proceed with the proposed planning scheme with no change or with changes which the local government is satisfied do not result in the proposed planning scheme or amendment being significantly different to the version released for public consultation; or
  - (b) proceed with the proposed planning scheme with changes which the local government is satisfied result in the proposed planning scheme or amendment being significantly different to the version released for public consultation; or
  - (c) not proceed with the proposed planning scheme.
- 7.8. If proceeding under Step 7.7(a), the local government must give written notice to the Minster seeking approval to adopt the scheme.
- 7.9. If proceeding with the proposed planning scheme with changes under Step 7.7(b), the local government must give written notice to the Minister seeking:
  - (a) direction about whether a second state interest check is required; and
  - (b) approval of the proposed planning scheme or amendment.
- 7.10. The written notice provided to the Minister under Step 7.9 must include:
  - (a) information about whether the local government considers the changes to the planning scheme or amendment will adversely affect state interests; and
  - (b) a copy of the proposed planning scheme or amendment in hard and electronic form, that clearly identifies the changes; and
  - (c) information about why the changes have been made.

#### Note on Information requirements from local government

Local government should provide well drafted and clearly articulated documents addressing the above points. Providing information in the form described above will facilitate faster assessment by the Minister. The local government may provide any additional information that it believes will assist the Minster when considering the proposed planning scheme.

Insufficient or unclear documentation is likely to delay the process, and the Minister may need to request further information from the local government to undertake this assessment.

#### Step 8. Minister advises on the next stage of the process

Responsible entity	Processes to which this step applies	Performance indicator timeframe
Minister	<ul> <li>Making a planning scheme</li> <li>Major amendment</li> </ul>	20 business days

- 8.1. If the Minister receives a written notice under Step 7.8, the Minister must advise the local government in writing:
  - (a) that it may adopt the proposed planning scheme or amendment; and
  - (b) which state planning instruments or parts of state planning instruments the Minister is satisfied are appropriately reflected in the proposed planning scheme; and
  - (c) that the local government may proceed to Step 10.
- 8.2. If the Minister receives written notice under Step 7.9, the Minister must consider whether a second state interest review is required.
- 8.3. If the Minister decides that a second state interest review is not required, the Minister must advise the local government in writing:
  - (a) that a second state interest review is not required; and
  - (b) that the local government may adopt the proposed planning scheme or amendment, with or without conditions; and
  - (c) which state planning instruments or parts of state planning instruments the Minister is satisfied are appropriately reflected in the proposed planning scheme; and
  - (d) that the local government may proceed to Step 10.
- 8.4. If the Minister decides that a second state interest view is required, the Minister must advise the local government in writing that a second state interest review is required.

Note on Ministers assessment of proposed planning scheme after consultation Step 8 relates to determining the next stages of the process in finalising the proposed planning scheme after public consultation. Generally it is intended that:

- proposed planning schemes or amendments which have not changed significantly from the public consultation draft may proceed to the adoption stages without further Minister review;
- · second state interest reviews are to be undertaken by exception only; and
- if a second state interest review is required, the local government may be required to undertake administrative processes to support the Ministers review process, such as supplying additional information or additional copies of information to the Minister for distribution to state agencies involved in the second state interest review.

The process for making or amending a planning scheme requires early and ongoing liaison between local and state governments. As such, it is intended that state

interests will have been raised early in the plan making process and resolved at the end of the first state interest review, limiting the need for a second state interest review.

#### Note on new state planning Instruments

State planning instruments are being developed by the state and will have the potential to be developed during the planning scheme drafting phase. Effective and ongoing liaison between local and state governments may provide scope for draft state planning instrument matters to be dealt with in a draft planning scheme.

However, given the potential for changes during the finalisation of state planning instruments, local government may not be in a position to adequately consider how their proposed planning scheme reflects the draft state planning instrument.

When considering if a second state interest review is required, the Minister may consider whether any state planning instruments have come into effect after the first state interest review. These considerations may include:

- the extent of changes required to a proposed planning scheme due to the state planning instrument;
- conflicts between the proposed planning scheme and the state planning instrument requiring the proposed planning scheme to be changed;
- the effort required by local government to amend its proposed planning scheme, such as requirements for additional studies, consultation or the potential for significant time delays in adopting the proposed planning scheme.

#### Stage 4 Second state interest review

# Step 9. Minister considers whether state interests may be adversely affected

Responsible entity	Processes to which this step applies	Performance indicator timeframe
Minister	<ul><li>Making a planning scheme</li><li>Major amendment</li></ul>	25 business days

- 9.1. If the Minister decides that a second state interest review is required, the Minister must consider whether state interests may be adversely affected by the proposed planning scheme or amendment.
- 9.2. In carrying out the second state interest review, the matters which may be considered by the Minister are limited to:
  - (a) matters which have already been identified by the Minister as a state interest in the first state interest review; and
  - (b) potential adverse impacts on state interests as a result of changes made to the proposed planning scheme since the first state interest review; and

(c) any new state planning instruments which have come into effect since the first state interest review.

#### Note on second state interest review

Prior to the second state interest review, the proposed planning scheme will have undergone significant state government and public review. It is not intended that a range of new issues which the local government has not previously been made aware of will be raised as part of the second state interest review. The second state interest review is intended to address matters which have previously been raised and not satisfactorily resolved, or to address new matters due to changes made to the proposed planning scheme after the first state interest review.

- 9.3. After carrying out the second state interest review, the Minister must advise the local government in writing:
  - (a) for a proposed planning scheme amendment that the local government may not proceed with the amendment; or
  - (b) that it may adopt the proposed planning scheme or amendment; or
  - (c) that it may adopt the proposed planning scheme or amendment subject to complying with conditions set by the Minister.
- 9.4. If the Minister advises the local government that it may adopt the proposed planning scheme or amendment, with or without conditions, the Minister must also advise the local government in writing which state planning instruments or parts of the instruments the Minister is satisfied are appropriately reflected in the proposed planning scheme or amendment.

#### Stage 5 Adoption

Responsible entity	Processes to which this step applies	Performance indicator timeframe
Local Government	<ul> <li>Making a planning scheme</li> <li>Major amendment</li> <li>Minor amendment</li> <li>Administrative amendment</li> </ul>	<ul> <li>305 business days</li> </ul>

#### Step 10. Local government decides whether to proceed or not

- 10.1. After receiving advice from the Minister under Step 9.3(b) or (c), the local government must decide to:
  - (a) adopt the proposed planning scheme or amendment; or
  - (b) not proceed with the proposed planning scheme or amendment.

- 10.2. If the local government decides not to proceed, it must place a notice in a local newspaper, on the local government's website and in the gazette stating the following:
  - (a) the local government name; and
  - (b) the decision; and
  - (c) the reason for not proceeding.
- 10.3. The local government must also give the chief executive a copy of the notice mentioned in Step 10.2.
- 10.4. If the local government decides to adopt the planning scheme, it must:
  - (a) comply with any conditions which must be undertaken prior to adoption imposed by the Minister; and
  - (b) note in the planning scheme the state planning instruments which the Minister has advised are, in the Minister's opinion, appropriately reflected in the planning scheme or amendment; and
  - (c) place a notice in a local newspaper, on the local government's website and in the gazette stating:
    - (iii) the local government name; and
    - (iv) the date the planning scheme was adopted; and
    - (v) for a planning scheme amendment:
      - (A) if the amendment only applies to part of an existing planning scheme area—a description and the location of that area; and
      - (B) the purpose and general effect of the amendment; and
    - (vi) where to inspect or obtain a copy of the planning scheme or amendment.
- 10.5 The local government must give the chief executive a copy of the notice, three certified copies of the planning scheme and one electronic copy of the planning scheme, including maps, as soon as possible after undertaking Step 10.4 in the format identified by the Department of Local Government and Planning.

# Part 2—Making or amending a planning scheme policy

### What is a planning scheme policy?

A planning scheme policy is a statutory instrument that may provide guidance and support the local dimension of a planning scheme under the SPA.

## Types of planning scheme policy amendments

Different types of amendment can be made to planning scheme policies. These amendments are divided into two categories:

- minor amendments;
- major amendments.

#### **Minor amendments**

A *minor amendment* to a planning scheme policy means a correction or change which is administrative in nature or which does not introduce new information or significantly change an existing policy position or technical matter contained in the existing planning scheme policy.

#### **Major amendments**

A *major amendment* to a planning scheme policy is an **a**mendment that is not a minor amendment.

### Ministerial notice excusing compliance with steps required by this guideline for the making or amending a planning scheme policy

With the exception of Steps 1.1, 1.2, 2 (for making a planning scheme policy only), 3.1 and 4 of this guideline, the Minister may by written notice advise a local government that it need not undertake steps otherwise required by this guideline.

The Minister may only give a written notice to the local government if the Minister is satisfied that:

- (a) significant planning work has been undertaken by the local government (or an entity working on behalf of the local government) that is relevant to making or amending the planning scheme policy; and
- (b) requiring the local government to complete all of the steps in this guideline would result in a repetition of process.

When issuing a written notice varying the steps of this guideline, the Minister may give any direction or impose any condition on the local government that the Minister considers necessary in the circumstances to progress the making or amendment of the planning scheme policy.

The written notice to local government must identify the following:

- (a) the name of the relevant local government; and
- (b) the area to which the planning scheme policy or amendment applies; and
- (c) contact details including a telephone number; and
- (d) the steps of this guideline that the local government is not required to undertake; and
- (e) the reasons for the Minister's decision.

Where the Minister advises a local government that steps identified within this guideline need not be undertaken, the Minister must, as soon as practicable, publish a notice at least once in a newspaper circulating in the local government's area and on the Department of Local Government and Planning's website. The notice must state the following:

- (a) that the Minister has given a notice under this guideline advising the local government that certain steps of this guideline do not apply to the local government; and
- (b) a description of the planning scheme policy or amendment to which the advice relates; and
- (c) the steps of this guideline that the local government is not required to undertake; and
- (d) the reasons for the Minister's decision.

# Process to make or amend a planning scheme policy



#### Figure 2. Process for making or amending a planning scheme policy

In this part, reference to making a planning scheme policy includes making an amendment to a planning scheme policy unless otherwise stated.

#### Stage 1 Proposal and preparation stage

#### Step 1. Local government proposes to make a planning scheme policy

- 1.1. The local government proposes to make a planning scheme policy and develops a draft planning scheme policy.
- 1.2. If making a minor amendment to a planning scheme policy, the local government must decide to:

- (a) adopt the proposed amendment and proceed to Step 4; or
- (b) not adopt the proposed amendment.
- 1.3. If making a planning scheme policy or a major amendment to a planning scheme policy, the local government must prepare an explanatory statement about the proposal.

#### Stage 2 Consultation stage

# Step 2. Local government seeks the public's views on the proposed planning scheme policy

- 2.1. The local government must carry out public consultation about a proposed planning scheme policy or a major amendment to a planning scheme policy for a period (consultation period) of at least 20 business days.
- 2.2. The local government must place a notice in a newspaper distributed in the local government area and on the local governments' website stating:
  - (a) the name of the local government; and
  - (b) the name of the proposed planning scheme policy or amendment; and
  - (c) the purpose and general effect of the proposed planning scheme policy or amendment; and
  - (d) if the proposed planning scheme policy replaces an existing planning scheme policy, the name of the existing policy; and
  - (e) a contact telephone number for information about the proposed planning scheme policy or amendment; and
  - (f) that the proposed planning scheme policy or amendment and any explanatory statement are available for inspection and purchase; and
  - (g) that written submissions about any aspect of the proposed planning scheme policy or amendment may be made to the local government by any person; and
  - (h) the period during which the submissions may be made; and
  - (i) the requirements for making a properly made submission.
- 2.3. Throughout the consultation period, the local government must display a copy of the notice in an obvious place in the local government's public office and have a copy of the proposed planning scheme policy or amendment and any explanatory statement available for viewing and purchase.
- 2.4. The local government must consider every properly made submission about the proposed planning scheme policy or amendment and:
  - (a) advise persons in writing who make a properly made submission about how the local government dealt with the submission; and

- (b) give the Minister a written notice containing a summary of matters raised in the properly made submissions and stating how the local government dealt with the matters.
- 2.5. After considering any submissions, the local government may make changes to the proposed planning scheme policy or amendment to:
  - (a) address issues raised in a properly made submission; or
  - (b) amend a drafting error; or
  - (c) address new or changed planning circumstances or information.
- 2.6. If the local government changes the proposed planning scheme policy or amendment and the local government is satisfied that the change results in the proposed planning scheme policy or amendment being significantly different to the version released for public consultation, the local government must repeat Steps 2.1 to 2.4.
- 2.7. Despite Step 2.6, the consultation may be limited to seeking comments on only those aspects of the planning scheme policy or amendment which have changed.

#### Stage 3 Adoption

# Step 3 Local government decides whether to adopt the proposed planning scheme policy

- 3.1. After considering any properly made submissions, the local government must decide to:
  - (a) adopt the proposed planning scheme policy or amendment; or
  - (b) adopt the proposed planning scheme policy or amendment with changes; or
  - (c) not adopt the proposed planning scheme policy or amendment.

#### Step 4. Local government adopts the planning scheme policy

- 4.1. After adopting the planning scheme policy or amendment, the local government must place a notice in a local newspaper, in the gazette and on its website stating:
  - (a) the local government name; and
  - (b) the name of the policy adopted or amended; and
  - (c) the day the policy commences; and
  - (d) the purpose and general effect of the planning scheme policy or amendment; and
  - (e) the name of any existing policy replaced by the planning scheme policy; and

- (f) where a copy of the planning scheme policy or amendment can be inspected or purchased.
- 4.2 The local government must give the chief executive a copy of the notice and three certified copies and one electronic copy of the planning scheme policy or amendment, including associated maps, as soon as possible after undertaking Step 4.1.

# Part 3—Making a temporary local planning instrument

### What is a temporary local planning instrument?

Temporary local planning instruments (TLPI) are statutory instruments which assist advancing the purpose of the SPA by protecting a planning scheme area from adverse impacts.

# Process to make a temporary local planning instrument



#### Stage 1 Proposal

# Step 1 Local government proposes to prepare a temporary local planning instrument and seeks Ministers approval

- 1.1. The local government must propose to prepare a temporary local planning instrument (TLPI) and draft the instrument.
- 1.2. After drafting the proposed TLPI, the local government must give a copy of the proposed TLPI to the Minister with written advice about why the local government proposes to make the TLPI.

#### Note on making a temporary local planning instrument

Section 105 of the SPA identifies the matters which the Minister must consider when deciding if a local government can make a TLPI. To assist the Minister, the local government should provide sufficient and relevant information to demonstrate how the TLPI complies with Section 105 of the SPA.

#### Step 2 Minister considers the proposal

- 2.1. After considering the proposed TLPI, the Minister must advise the local government in writing that it may:
  - (a) adopt the proposed instrument, with or without conditions; or
  - (b) not adopt the proposed instrument.
- 2.2. The local government must comply with any conditions imposed by the Minister.

#### Stage 2 Adoption

#### Step 3. Local government decides whether to adopt

- 3.1. The local government must decide to:
  - (a) adopt the proposed TLPI; or
  - (b) not adopt the proposed TLPI.
- **3.2.** If the local government decides not to adopt the proposed TLPI, the local government must give the Minister written notice about its decision, including reasons for its decision.

#### Step 4. Public notification of adoption

- 4.1 After the TLPI is adopted, the local government must place a notice in a local newspaper, the gazette and on the local government's website stating:
  - (a) the name of the local government; and
  - (b) the date the TLPI was adopted; and
  - (c) the date the TLPI commences and the date it will cease to have effect; and
  - (d) the purpose and general effect of the TLPI; and
  - (e) if the TLPI only applies to part of the planning scheme area, a description and the location of that area; and
  - (f) where people can inspect and purchase a copy of the TLPI.
- 4.2 The local government must give the chief executive a copy of the notice and three certified copies and one electronic copy of the TLPI, including any

associated maps, as soon as possible after placing the notice in the format identified by the Department of Local Government and Planning.

# State powers regarding local planning instruments

# What are the state's powers regarding local planning instruments?

The Minister has the power under the SPA to direct local government to make, amend or repeal a local planning instrument. The Minister can also make, amend or repeal a local planning instrument in certain circumstances.

# Ministers process for making or amending a local planning instrument

#### Process if Minister takes directed action

The process for the Minister to take the action the Minister directed the local government to take is the same as the process for the local government to take the action except that:

- (a) for Part 1 of this guideline, the following steps of the process for making or amending a planning scheme do not apply:
  - (i) Steps 2.2(a) and (b); and
  - (ii) Step 3; and
  - (iii) Step 4; and
  - (iv) Step 5.3; and
  - (v) Step 7.3(b); and
  - (vi) Steps 7.8 and 7.9; and
  - (vii) Steps 8.1, 8.3 and 8.4; and
  - (viii) Steps 9.3 and 9.4; and
- (b) for Part 2 of this guideline, Step 2.4(b) of the process for making or amending a planning scheme policy does not apply; and
- (c) for Part 3 of this guideline, Steps 1.2, 2.1 and 3.2 of the process for making a temporary local planning instrument do not apply.

If the Minister is taking an action in respect of a local planning instrument, the Minister cannot exercise the Minister's powers to excuse compliance with certain steps of this guideline.

#### References in the statutory guideline to local government etc.

If the Minister takes the action the Minister directed the local government to take, a reference in this guideline to:

- (a) the local government's public office is a reference to the Department of Local Government and Planning's state office; and
- (b) a decision taken by resolution of the local government is a reference to a decision of the Minister; and
- (c) a local government's chief executive officer is a reference to the chief executive of the Department of Local Government and Planning; and
- (d) a local government's website is a reference to the Department of Local Government and Planning's website.

# Schedule 1

## Abbreviations

IDAS	Integrated Development Assessment System
PIP	Priority infrastructure plan
PIA	Priority infrastructure area
RPC	Regional Planning Committee
SPA	Sustainable Planning Act 2009
SPSP	Standard planning scheme provisions
TLPI	Temporary local planning instrument

# **Schedule 2**

### Glossary

First state interest review

Second state interest review

Suppliers of state infrastructure

means a review carried out by the Minister under Part 1, Stage 2 of this guideline

means a review carried out by the Minister under Part 1, Stage 4 of this guideline

means suppliers of the following:

- state schools infrastructure
- public transport infrastructure
- · state-controlled roads infrastructure
- emergency services infrastructure
- water infrastructure (if applicable in the local government area).

## **Schedule 3**

### Detailed flow diagram of the process for making a planning scheme or making a major amendment to a planning scheme

Note: reference to making a planning scheme includes making a planning scheme and making a major amendment to a planning scheme.

Stage 1




### Stage 3







Schedule 4

# Detailed flow diagram of the process for making a minor or administrative amendment to a planning scheme

Phashing at home anothing the shire



Statutory Guideline 02/09

- 41 -



Department of Local Government and Planning PO Box 15009 City East Qld 4002 Australia tel +61 7 3227 8548 info@dlgp.qld.gov.au

www.dlgp.qld.gov.au









Goondiwindi Customer Service Centre: (07) 4671 7400 Inglewood Customer Service Centre: (07) 4652 0200 Texas Customer Service Centre: (07) 4653 2600 Facsimile<sup>2</sup> (07) 4671 7433

Postal: LMB 7, Inglewood QLD 4387 Email: mail@goondiwindirc.gld.gov.au Web: www.goondiwindirc.qld.gov.au

TF/11/17494

Enquiries: Telephone: Date: File:



JUN 2011 BY

**Chief Executive Officer Queensland Reconstruction Authority** PO Box 15428 **CITY EAST QLD 4002** 

Attention: Mr

Dear Mr

### **RE: PROPOSED RURAL RESIDENTIAL SUBDIVISION - MACINTYRE RIVER OPPOSITE GOONDIWINDI**

Council is in receipt of correspondence from Cardno Lawson & Treloar Consulting Engineers requesting review and comment on flood modeling for a proposed major rural residential subdivision on the New South Wales bank of the Macintyre River opposite Goondiwindi.

The town of Goondiwindi is located in a major flood plain and is protected in times of flooding by an extensive network of levee banks. Council believes that the development could have significant impacts on issues such as the provision of health services, emergency services operations and undertakings during flood events, and the extent of flooding on Goondiwindi.

Prior to supporting or opposing such a proposal, Council would like to discuss the matter with senior officers of your department.

To this end, I would request the relevant officer contact me directly on

Yours faithfully

**DIRECTOR ENGINEERING & PLANNING** 

Goondiwindi Regional Council Ordinary Meeting of Council to be held Wednesday, 22 June 2011

<b>REPORT TYPE:</b>	Consideration	REPORT NUMBER: EP033-11
<b>REPORT DATE:</b>	9 June 2011	FILE REFERENCE: Development
DEPARTMENT:	Engineering & Planning	
REPORT TITLE:	Flooding Assessment - Property	Proposed Rural Residential Subdivision – Moloney
PREPARED BY:	Director Engineering & F	Planning,

### SYNOPSIS:

The owners of property in NSW on the southern banks of the Macintyre River opposite Goondiwindi have been investigating the feasibility of a rural residential subdivision for some years. The project has now progressed to the point where the developer is requesting review and comment from Goondiwindi Regional Council and DERM prior to formally submitting the proposal to the relevant NSW state government agency (Department of Environment, Climate Change & Water).

### EXECUTIVE SUMMARY:

An extract from the conclusions of the report are provided below.

"The predicted maximum flood impact adjacent to the Goondiwindi Levee is less than 10mm and the modelling demonstrates there is no significant change to existing flow distribution or floodplain velocity.

In addition, the 1% AEP (1 in 100 Year) flood levels due to the Moloney development proposal are lower than those presented in the March 2007 'Goondiwindi Environs Flooding Investigation' Report. This report provided the basis for proposed new levee heights and the modelling confirms these heights will not be compromised by the development".

Whilst the modelling is certainly based on sound engineering principals and the results no doubt correct for the situation modelled, other factors need to be taken into account prior to making a decision whether or not to support or oppose this development. These factors include:-

- 1. The proposed new levee heights referred to above have not been achieved at this point in time and further works are required to be undertaken on the levee bank to ensure it's integrity in major floods.
- 2. The impact on flood levels of further filling, erection of fencing etc by the property owners when the development is established may cause impacts greater than those reported in the modelling.
- 3. The control over future filling and works is a major concern as the development is not within Council's area of jurisdiction.
- 4. Major concerns were held during the recent record floods over the actual location and height of levee banks in NSW in relation to the original approvals. Further assessment of this issue should be undertaken prior to further works being approved in the vicinity.
- 5. Crops are being grown in areas that are set aside for major flow paths. These crops would be having a detrimental impact of the distribution of flood water and this issue should also be further investigated prior to further works being approved.
- 6. The provision of services and the impact of the development on Goondiwindi require investigation bearing in made that rates and some charges cannot be levied on future owners of the land.
- 7. The impact that further residential development on the floodplain will have on emergency services such as EMQ, SES, QAS and QPS is of concern. Access to the future dwellings will not be achievable by road in a major flood event. The recently established Queensland Reconstruction Authority may also have an interest in this issue.

8. The impact of the development on essential services provided by the state government, particularly in areas such as health, may be of concern to those agencies.

In light of the above, it may be prudent for Council to obtain input from various Queensland state government agencies that may be impacted upon prior to making a decision on this issue and to have further discussions with DECCW NSW. A suggested way forward is to write to the QRA, EMQ, QH, QAS and DECCW outlining our concerns and requesting a meeting with each agency to discuss these matters further.

### BACKGROUND:

N/A

### **RECOMMENDATION:**

That Council write to the QRA, EMQ, QH, QAS and DECCW NSW outlining our concerns with the proposed development and request a meeting with each agency to discuss the matter.

That Council respond to Cardno Lawson & Treloar advising that we are seeking additional information from various government agencies.

### LEGISLATION:

N/A

POLICY:

N/A

### FINANCIAL IMPACTS:

N/A at this stage

### **ATTACHMENTS:**

Flooding Assessment - Proposed Rural Residential Subdivision - Moloney Property

Attachment A:







### RE: Flooding Assessment - Proposed Rural Residential Subdivision, Moloney Property

### 1.0 Introduction

We write to provide details regarding an additional flood assessment undertaken for the proposed rural residential subdivision on the Moloney property. This additional assessment has been carried out following communication with the New South Wales Department of Environment Climate Change and Water (DECCW).

Prior to presenting outcomes of the flood modelling to DECCW, we request review and comment from both the Department of Environment & Resource Management (DERM) and Goondiwindi Regional Council (GRC). It is proposed that the DERM and GRC responses, in addition to the flood modelling presented in this letter, be included in the overall submission to DECCW.

### 2.0 Flood Assessment

Previous modelling presented to DECCW incorporated the following:

- Survey data as provided by SMK Consultants (received 23 October 2009); and
- Changes to the location, orientation and number of fill pads throughout the site.

The survey data included detailed ground survey of the Macintyre River bank adjacent to the property.

Modelling outcomes indicated a maximum predicted impact of 16mm adjacent to the Goondiwindi Levee in a 1% AEP flood event.

In order to limit flood impacts adjacent to the Goondiwindi Levee to 10mm or less as discussed with DECCW, some of the proposed fill pads throughout the site have been moved and / or re-orientated and 8 lots have been considered undevelopable in terms of filling. Based on the current SMK Consultants Pty Ltd development layout (included as reference drawings), these lots are 20, 22-26 and 37-38. In addition, the maximum fill footprint area on 16 lots has been reduced to 400m<sup>2</sup> from the previous proposed area of 800m<sup>2</sup>. These lots are 40-41, 64-74 and 92-94.

Minor excavation has also been included in the modelling, involving 'trimming' of the existing ground surface by up to 150mm, with no excavation works occurring within 40m of the River's high bank.

5 April 2011

Figure 1 shows the topography difference map associated with the overall site and presents the location and extent of the proposed fill pads and minor excavation.

The impact of the proposed ground level changes on flow distribution and velocity has also been assessed.

### 3.0 Model Results

The predicted 1% AEP flood impact associated with this proposal is presented in Figure 2 and shows the maximum flood impact associated with the proposed development adjacent to the Goondiwindi Levee is less than 10mm.

Table 3.1 below summarises existing and developed 1% AEP peak flows at various locations upstream and downstream of the development site as shown on Figure 3.

Table 3.1 - 1% AEP Peak Flow Comparison

Flow Line	Peak Flow (m <sup>3</sup> /s)		
	Existing	Developed	
No. 1	950.8	951.5	
No. 2	<del>5</del> 55.5	555.6	
No. 3	822.2	818.0	
No. 4	75.3	76.2	
No. 5	150.6	152.0	
No. 6	434.7	436.9	

The Table indicates there is only a very minor flow redistribution occurring with basically no change in peak flow entering the development site and a minor decrease (approximately 0.5%) in Macintyre River channel flow downstream of the site with a corresponding increase in floodplain flow.

Peak velocities and flow patterns are shown on Figures 4 and 5 for the existing and proposed Case 1% AEP events respectively. Peak floodplain velocities generally range between 0.25 and 1.0 m/s. Figure 6 shows the pre and post velocity difference and indicates velocity changes are confined to the development site.

In addition a comparison of 1% AEP peak water levels (including 300mm freeboard) presented in the 'Goondiwindi Environs Flooding Investigation' Report prepared in March 2007 with peak flood levels resulting from the Moloney development proposal has been made. Figure 1.4 included in the reference drawing section of this correspondence indicates the Moloney proposal does not increase peak flood levels presented to GRC previously with reductions up to 340mm occurring.

### 4.0 Conclusions

Flood modelling of revised earthworks extents within the Moloney property has been undertaken. This has included:

- No development on eight (8) current Lots;
- Maximum fill pad area limited to 400m<sup>2</sup> on sixteen (16) current Lots with the remaining Lots having a maximum fill footprint area of 800m<sup>2</sup>;and
- Minor excavation involving 'trimming' of the existing surface by up to 150mm with no excavation works occurring within 40m of the River's high bank.

5 April 2011



The predicted maximum flood impact adjacent to the Goondiwindi Levee is less than 10mm and the modelling demonstrates there is no significant change to existing flow distribution or floodplain velocity.

In addition, the 1% AEP (1 in 100 Year) flood levels due to the Moloney development proposal are lower than those presented in the March 2007 'Goondiwindi Environs Flooding Investigation' Report. This report provided the basis for proposed new levee heights and the modelling confirms these heights will not be compromised by the development.

Please contact the undersigned should you require any further information.

Yours faithfully



Project Manager For Cardno Lawson Treloar

Cc:

Director of Engineering & Planning, Goondiwindi Regional Council

Enc: Figure 1: Topography Difference

Figure 2: Peak Water Level Impacts

Figure 3: Flow Extraction Line Locations

Figure 4: Existing Peak Velocities and Flow Patterns

Figure 5: Developed Peak Velocities and Flow Patterns

Figure 6: Peak Velocity Difference

Reference Drawings - Lot Layouts (5 off) prepared by SMK Consultants

- Figure 1.4 (updated from Goondiwindi Environs Flooding Investigation Report)

























# **TOWN OF GOONDIWINDI - 2011 FLOOD**



1800 110 841 www.qldreconstruction.org.au





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QUEENSLAND FLOOD MAPPING SERIES GOONDIWINDI 2011 FLOOD EDITION 1



# **Queensland Reconstruction Authority**

For reply please quote: *QldRA/LUP/BN -- TF/11/17494* Your reference:

25 AUG 2011

Director General New South Wales Department of Planning and Infrastructure Locked Mailbag 9022 GRAFTON NSW 2460

Attention:	Regional Director, Northern Region
Dear	

# RE: Proposed Rural Residential Subdivision - Moree Plains Shire Council

I refer to concerns raised by the Goondiwindi Regional Council regarding a proposed rural residential subdivision opposite Goondiwindi on the southern banks of the Macintyre River in the Moree Plains Shire Council (MPSC) area. Mr Brendan Nelson, General Manager, Land Use Planning at the Queensland Reconstruction Authority (the Authority) has spoken with the Moree Planning at the Queensland Reconstruction for matter.

Following this discussion, the Authority would like to confirm the following with respect to the proposed development:

- The subject site flooded during the December 2010/January 2011 flooding event (see aerial photography attached);
- There is no current development application lodged with the MPSC for the site;
- The MPSC identified the subject land for rural residential purposes on its Local Growth Management Strategy (LGMS);
- The LGMS was not supported or endorsed by your Department on the basis of concerns about flooding, noting input from the NSW Department of Environment <u>Climate</u> Change and Water;
- For a second from your Department has confirmed that MPSC will need to undertake further modelling to demonstrate that the proposed development would have a nil or negligible impact on the Goondiwindi Regional Council area;
- Until this modelling is completed and approved by your Department (with input from stakeholders including Goondiwindi Regional Council), no development applications will be permitted to be lodged with MPSC;

I seek your confirmation that your Department will not support the finalisation of the flooding assessment being undertaken by Cardno Lawson Treloar allowing the

Level 9, 119 Charlotte Street Brisbane PO Box 15428 City East Queensland 4002 Australia Telephone +61 7 3008 7200 Facsimile +61 7 3008 7299 www.qkdreconstruction.org.au lodgement of a development application on the subject site until Goondiwindi Regional Council have been provided with the opportunity to review and provide comment on any revised report.

Should you have any queries in relation to this matter, please contact Mr Brendan Nelson on the property of the necessary assistance.

Yours sincerely



Encl





# **Queensland Reconstruction Authority**

For reply please quote: QldRA/LUP/BN - TF/11/17494 Your reference:

25 AUG 2011

Mr Peter Stewart Chief Executive Officer Goondiwindi Regional Council Locked Mailbag 7 INGLEWOOD QLD 4387

Attention:

Director Engineering and Planning

Dear Mr Stewart

# RE: Proposed Rural Residential Subdivision - Moree Plains Shire Council

I refer to your letter dated 22 June 2011 requesting discussion with senior officers from the Queensland Reconstruction Authority (the Authority) regarding a proposed rural residential subdivision opposite Goondiwindi on the southern banks of the Macintyre River in the Moree Plains Shire Council (MPSC) area.

I note that Mr Brendan Nelson, General Manager, Land Use Planning at the Authority has investigated the matter and spoken with you on a few occasions regarding this issue. The Authority has identified the following with respect to the proposed development:

- The subject site flooded during the December 2010/January 2011 flooding event;
- There is no current development application lodged with the MPSC for the site;
- The MPSC identified the subject land for rural residential purposes on its Local Growth Management Strategy (LGMS);
- The LGMS was not supported or endorsed by the NSW Department of Planning and Infrastructure (DPI) on the basis of concerns about flooding;
- The DPI have advised MPSC that they need to undertake further modelling to demonstrate that the proposed development would have a nil or negligible impact on the Goondiwindi Regional Council area; and
- Until this modelling is completed and approved by the DPI (with input from stakeholders including Goondiwindi Regional Council), no development applications will be permitted to be lodged with MPSC.

Please find attached correspondence which I have forwarded to the DPI regarding this matter. I will advise you if I receive further correspondence regarding this matter.

Level 9, 119 Charlotte Street Brisbane PO Box 15428 City East Queensland 4002 Australia Telephone +61 7 3008 7200 Facsimile +61 7 3008 7299 www.qldreconstruction.org.au I thank you for bringing this matter to my attention. Should you have any queries in relation to this matter, please contact Mr Brendan Nelson on the provide of the recessary assistance.

Yours sincerely

Chief Executive Officer

Encl



TOWN OF GOONDIWINDI - 2011 FLOOD

7

# Sub-basins in Queensland and proposed schedule

Phase 1 mapping was completed at end of July 2011, phase 2 is due to be completed in mid October 2011 and phase 3 will map relevant areas by mid 2012 at the latest. Some sub-basins have been excluded due to local government already having mapping available or mapping not considered necessary over the sub-basin.

Drainage	Basin Name	Sub-Basin	
Division		Name	Status
Lake Eyre	Georgina	Eyre Creek	Phase 3
		Georgina River	Phase 3
	Diamantina	Diamantina River	Phase 3
	Cooper Creek	Cooper Creek	Phase 3
		Thomson River	Phase 3
		Barcoo River	Phase 2
	Lake Frome	Lake Frome	Phase 3
	Hay	Hay River	Phase 3
Bulloo	Bulloo	Bulloo River	Phase 3
North East Coast	Jacky Jacky	Jacky Jacky Creek	Phase 3
	Olive-Pascoe	Olive River	Phase 3
		Pascoe River	Phase 3
	Lockhart	Lockhart River	Phase 3
	Stewart	Stewart River	Phase 3
	Normanby	Hann River	Phase 3
		Normanby River	Phase 3
	Jeannie	Jeannie River	Phase 3
	Endeavour	Endeavour River	Phase 3
	Daintree	Daintree River	Phase 2
	Mossman	Mossman River	Phase 2
	Barron	Barron River & Freshwater Creek	Phase 2
	Mulgrave-Russell	Mulgrave River	Phase 2
		Russell River	Phase 2
	Johnstone	North Johnstone River	Phase 2
		South Johnstone River	Phase 2
	Tully	Tully River	Phase 2
	Murray	Murray River	Phase 2
	Hinchinbrook Island	Hinchinbrook Island	Not in scope
	Herbert	Herbert River	Phase 2
	Black	Black River	Phase 2
	Ross	Bohle River	Phase 2
		Ross River	Phase 2
	Haughton	Haughton River	Phase 2

Drainage	Basin	Sub-Basin		
Division	Name	Name	Status	
		Barratta Creek	Phase 2	
	Burdekin	Lower Burdekin River	Phase 2	
		Upper Burdekin River	Phase 2	
		Bowen River	Phase 2	
		Suttor River	Phase 2	
	Don	Don River	Phase 2	
	Proserpine	Proserpine River	Phase 2	
	Whitsunday Island	Whitsunday Island	Not in scope	
	O'Connell	O'Connell River	Phase 2	
	Pioneer	Pioneer River	Phase 2	
	Plane	Plane Creek	Phase 2	
	Stvx	Styx River	Phase 2	
	Shoalwater	Shoalwater	Not in scope	
	Waterpark	Waterpark Creek	Phase 2	
	Fitzrov	Fitzrov River	Phase 2	
		Mackenzie River	Phase 1	
		Nogoa River	Phase 1	
		Dawson River	Phase 1	
		Isaac River	Phase 1	
		Comet River	Phase 1	
	Curtis Island	Curtis Island	Not in scope	
	Callione	Callione River	Phase 2	
	Boyne	Bovne River	Phase 2	
	Baffle	Baffle Creek	Phase 2	
	Kolan	Kolan River	Phase 2	
	Burnett	Lower Burnett River	Phase 1	
	burnett	Loper Burnett River	Phase 1	
		Barker & Barambah Creeks	Phase 1	
		Boyne & Auburn Rivers	Phase 1	
	Burrum	Elliott River	Phase 1	
	burum	Gregory River	Phase 1	
		Isis River	Phase 1	
		Burrum River	Phase 1	
	Mary	Lower Mary River	Phase 1	
		Upper Mary River	Phase 1	
	Fraser Island	Fraser Island	Not in scope	
	Noosa	Noosa River	Phase 2	
	Maroochy	Maroochy River	Not in scope	
	Pine	Caboolture River	Not in scope	
		North Pine River	Not in scope	
		South Pine River	Not in scope	
Drainage	Basin	Sub-Basin	sin	
----------------------	---------------------	----------------------------	--	--
Division	Name	Name	Status	
	Brisbane	Brisbane River	Phase 1 (excludes Ipswich & Brisbane LGA)	
		Bremer River	Phase 2 (Scenic Rim LGA only)	
		Lockyer Creek	Phase 2	
		Stanley River	Phase 1	
	Moreton Bay Islands	Stradbroke Islands	Not in scope	
		Moreton Island	Not in scope	
	Logan-Albert	Logan River	Phase 2 (Scenic Rim LGA only)	
		Albert River	Phase 2 (Scenic Rim LGA only)	
	South Coast	Coomera & Nerang Rivers	Not in scope	
Murray Darling	Border Rivers	Macintyre & Weir Rivers	Phase 1	
Drainage Division		Dumaresq River	Phase 1	
		Macintyre Brook	Phase 1	
	Moonie	Moonie River	Phase 1	
	Balonne-Condamine	Balonne River	Phase 1	
		Condamine River	Phase 1	
		Maranoa River	Phase 1	
		Wallam Creeks	Phase 2	
	Warrego	Warrego River	Phase 2	
	Paroo	Paroo River	Phase 3	
Gulf	Settlement	Settlement River	Phase 3	
		Lagoon Creek	Phase 3	
Drainage Division		Eight Mile Creek	Phase 3	
		Cliffdale Creek	Phase 3	
	Mornington Island	Mornington Island	Phase 3	
	Nicholson	Nicholson River	Phase 3	
	Leichhardt	Leichhardt River	Phase 3	
	Morning	Morning Inlet	Phase 3	
		"L" Creek	Phase 3	
	Flinders	Flinders River	Phase 3	
		Saxby River	Phase 3	
		Cloncurry River	Phase 3	
	Norman	Norman River	Phase 3	
	Gilbert	Gilbert River	Phase 3	
		Einasleigh River	Phase 3	
	Staaten	Staaten River	Phase 3	
	Mitchell	Mitchell River	Phase 3	
		Alice River	Phase 3	

Drainage	Basin	Sub-Basin	
Division	Name	Name	Status
		Palmer River	Phase 3
		Walsh River	Phase 3
	Coleman	Coleman River	Phase 3
		Edward River	Phase 3
	Holroyd	Holroyd River	Phase 3
		Kendall River	Phase 3
	Archer	Archer River	Phase 3
		Coen River	Phase 3
	Watson	Watson River	Phase 3
	Embley	Embley River	Phase 3
		Mission River	Phase 3
	Wenlock	Wenlock River	Phase 3
	Ducie Ducie River Phase 3   Skardon River Phase 3   McDonald River Phase 3	Phase 3	
		Skardon River	Phase 3
		McDonald River	Phase 3
	Jardine	Jardine River	Phase 3
	Torres Strait Islands	Torres Strait Islands	Not in scope
Misc Other Islands	Misc Other Islands	Misc Other Islands	Not in scope























MAP INFORMATION			
Imagery:	ESRI ArcGIS Online Imagery Basemap		
Cadastre:	Digital Cadastral Database (DCDB) is current at July 2011. Positional accuracy representing the 'maximum error' has been calculated at $\pm$ 57 metres.		
Floodplain Assessment Overlay:	For more information regarding the capture of this line please see the Foreword at the front of this atlas.		
Watercourses:	The average accuracy of the data is plus or minus 25 metres in the horizontal position		
Drainage Sub-Basin:	Dawson River		
Drainage Basin:	Fitzroy		
Drainage Division:	North East Coast		
Datum:	Horizontal - Geocentric Datum of Australia 1994 (GDA94)		
Projection:	Horizontal - Map Grid of Australia (MGA94), which is a standard Universal Transverse Mercator (UTM) projection in Zone 55 with Central Meridian 147° East		
Grid:	Grid lines are at 5 kilometre intervals		
Technical enquiries: The Manager GIS Mapping Services (Cilent Outcomes), Spatial Information Group Department of Environment and Resource Management GPO Box 2454, Brisbane QLD 4001 While every care is taken to ensure the accuracy of this data, the Department of Environment and Resource Management, and/ contributors to this publication, makes no representations or warranties about its accuracy, reliability, completeness or suitability for an			
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Imagery:	ESRI ArcGIS Online Imagery Basemap	م ج		
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## Planning for stronger, more resilient electrical infrastructure





## Improving the resilience of electrical infrastructure during flooding and cyclones








### Introduction

During the summer of 2010/2011 Queensland experienced unprecedented weather events that not only damaged about 165,000 homes, but also resulted in around 480,000 residences and businesses losing power across this period. While the power supply network was restored as quickly as possible, damage to some premises meant they could not re-connect to the power supply network for periods ranging from weeks to months. In light of this, all Queenslanders must ensure that they have an understanding of the electrical infrastructure network in our State and be prepared for the impact that natural disasters, specifically flooding and cyclones, can have on electricity supply.

One of the core functions of the Queensland Reconstruction Authority (the Authority) is to ensure that Queensland learns from the 2010/2011 natural disasters. Therefore the Authority has teamed up with ENERGEX Limited (ENERGEX), Ergon Energy and Powerlink with the aim of investigating and implementing improvements to the resilience of electrical infrastructure in the future.

An outcome of this partnership is the development of *Planning for stronger, more resilient electrical infrastructure – Improving the resilience of electrical infrastructure during flooding and cyclones.* This Guideline is intended to highlight key considerations in relation to electricity distribution, land use planning, emergency planning and management, building and design including the home.

It is also important to highlight that the considerations identified in this Guideline do not replace the need for Queenslanders living in areas prone to natural disasters, including flooding and cyclones, to be prepared to evacuate.

This Guideline is a companion document to the report **Rebuilding a** stronger, more resilient Queensland released on 12 September 2011. The report provides an overview of resilience in a disaster management context and details on the strategic resilience projects being delivered throughout Queensland in response to the disaster events of 2010-11. While it gives an overarching assessment of disaster resilience, this Guideline provides detailed advice on building and enhancing the State's resilience for electrical infrastructure.

While you might not be directly affected by a flood or cyclone, your power supply may need to be disconnected because part of the network has been affected.

### **About this Guideline**

This Guideline is intended to:

- Inform Queenslanders about the electricity supply network and the impacts that flooding and cyclones can have on electricity supply.
- Inform Queenslanders about the impact that the 2010/2011 events had on the electrical infrastructure network.
- Identify the lessons learnt from the recent natural disasters.
- Provide key considerations for electricity distribution, land use planning, emergency planning and management, building and design including the home.

### **Expectations**

Given the unprecedented events of last summer, it is critical that everyone has a better understanding of the electricity network in Queensland. It is also important to understand that while you might not be directly affected by a flood or cyclone, your power supply may need to be disconnected because part of the network has been affected. Therefore Queenslanders need to be prepared in disaster situations to be without power for a period of time.

### The reality is that electricity and water do not mix and together can lead to serious life threatening and safety issues.

In flooding and cyclones it is inevitable that some loss of power will occur and as such the most effective safety measures will be put in place. Moreover, in some cases it is beneficial to preemptively disconnect power to ensure that less damage to electrical infrastructure occurs. This will mean that the power may be back on sooner.

This Guideline will assist in managing expectations for the reconnection of power to homes and businesses following a flood or cyclones by explaining the reasons for disconnection as well as how Queenslanders can best prepare for the loss of power.

### **Queensland's regulatory framework**

### **Legislative Environment**

In Queensland, electricity distributors are responsible for distributing electricity to customers across the State. The *Electricity Act 1994* (The Act) and the *Electricity Regulation 2006* are the primary pieces of legislation that govern Queensland's electricity industry. The Act gives electricity distributors the authority to operate in their areas of distribution.



Photo of Ergon Energy workers repairing the network courtesy of Ergon Energy



### 1 – Understanding electricity in Queensland

Queensland's electricity network is complex and it is not expected that all Queenslanders will have a full understanding of the network. However, it is important to gain a basic understanding of the electricity network. Figure 2 below shows the typical electrical path from a power station to a dwelling or business.

### The electricity supply system in Queensland has four interconnected components:

- Generation (Stage 1)
- Transmission (Stage 2)
- Distribution (Stage 3)
- Retail (Stage 4)



Figure 1: Map of electricity distributor jurisdictions in Queensland



#### GENERATION

### Stage 1 – Generation

Electricity is generated at power stations, which use various resources – fuels (coal, gas, oil, biomass), water (hydro), wind or solar to generate power. Since the national electricity market was established in 1998, \$8 billion has been invested in electricity generation in Queensland. Queensland's electricity generation is provided by Government Owned Corporations and a number of private companies.

#### Stage 2 – Transmission

TRANSMISSION NETWORK

The electricity is increased in voltage at the power stations and fed into the high-voltage transmission network, which transports the electricity to many distribution networks. The Government Owned Corporation Powerlink owns and operates the State's more than 13,000 circuit kilometre high voltage transmission network.

### Queensland's electricity network - jurisdictions

### Powerlink

Powerlink is responsible for planning and developing the electricity transmission network for the entire State of Queensland (**Stage 2 – Transmission**). This means that Powerlink carries out the State's network development to ensure that Queensland has a secure and reliable electricity supply and to address anticipated network limitations.

Powerlink's high voltage transmission network extends from north of Cairns to the New South Wales border and primarily transports high voltage electricity from generators to electricity distribution networks owned by ENERGEX, Ergon Energy and Essential Energy. Powerlink also transports electricity directly to large Queensland customers, such as aluminium smelters and New South Wales via the New South Wales/ Queensland Interconnector transmission line.

### **ENERGEX**

ENERGEX as a distributor (**Stage 3 - Distribution**) supplies electricity to a population of more than 2.8 million people and employs approximately 3800 employees. This includes the regions of Brisbane, Ipswich, Gold Coast and Sunshine Coast, as shown in Figure 1.

ENERGEX has 54,000 kilometres of powerlines and more than 600,000 power poles. ENERGEX's electricity distribution network spans more than 25,000 square kilometres throughout South East Queensland (SEQ), as shown on Figure 2.

In the past 10 years the population has dramatically increased in these areas, leading to a 30 per cent growth in customer numbers and a consequent rise in overall energy demand.



Ergon Energy, as an generator, distributor and retailer (**Stages 1, 3 and 4**) has around 4600 employees and services around 690,000 customers across one million square kilometres – 97 per cent of Queensland.

Ergon Energy's network consists of about 150,000 kilometres of powerlines and a million power poles (**Stage 3 – Distribution**). Around 70 per cent of Ergon Energy's powerlines run through rural Queensland covering vast distances in largely unpopulated area, as seen in Figure 1.

As a government-owned 'non-competing' electricity retailer Ergon Energy continues to play an important role engaging with the community around their electricity use (**Stage 4 – Retailers**).

### **Essential Energy**

Essential Energy is a NSW Government-owned corporation, with responsibility for building, operating and maintaining an electricity network which delivers essential services to more than 800,000 homes and businesses across 95 per cent of NSW, parts of southern Queensland, including the town of Goondiwindi (as shown in Figure 1) and northern Victoria (**Stage 3 – Distribution**). It includes more than 200,000 kilometres of powerlines and 1.4 million poles.

## Queensland's electricity distribution networks are extensive, with a total line length of about 200,000 kilometres.



#### Stage 3 – Distribution

The voltage of the electricity is progressively reduced at a series of substations spread throughout the networks until it is at its final voltage of 240 V/415 V for supply to homes and businesses. For the majority of Queensland, ENERGEX and Ergon Energy are responsible for the distribution of electricity, with a very small area by the NSW distributor, Essential Energy.

#### Stage 4 – Retailers

When customers arrange to have electricity connected, they contact an electricity retailer who makes the appropriate arrangements and bills the customer for the electricity used. There are a number of retailers operating in Queensland. They buy electricity from the generators and on sell to their customers.

Source: This information has been sourced and modified from the Department of Employment, Economic Development and Innovation

# 2 – What happened in summer 2010/2011

From July to December 2010, extremely heavy rainfall was experienced across large parts of eastern Australia, with Queensland experiencing its wettest spring on record. This rain pattern was influenced by the strongest La Niña effect in the Pacific Ocean since the mid-1970s and as a result, Queensland's catchment areas were significantly saturated before major rain events occurred during November 2010 to April 2011.

There were a number of significant events throughout this period which had major impacts upon electrical infrastructure. This included major flooding throughout Central and Southern Queensland, flash flooding in Toowoomba and Lockyer Valley, major flooding in Ipswich and Brisbane and Severe Tropical Cyclone Yasi (Cyclone Yasi) which made landfall as a Category 5 Tropical Cyclone.

During the flooding and cyclone events of summer 2010/2011 Queensland's electricity distributors were required to initiate rapid response and recovery processes to ensure the electricity network sustained the least damage and that power was able to be restored as soon as possible. The following outlines the task that was faced by Ergon Energy, ENERGEX and Powerlink during the damage and response phases.



Photo of fallen powerlines at Tully Heads provided courtesy of Queensland Government



Photo taken in Oxley on the Ipswich Motorway provided courtesy of ENERGEX

# Never before had electricity distributors had to face such a task.

### 2010/2011 Timeline of events



### Damage and response

### **Ergon Energy**

The flooding and cyclones of summer 2010/2011 resulted in the entire State being disaster activated. Entire towns were submerged, some repeatedly. In the first stage of any response, the priority is on returning the supply to the transmission network, the bulk supply points and then the high voltage backbone of the network



to enable restoration to the largest number of customers as quickly as possible. At the same time, there is a focus on restoring critical infrastructure, including hospitals and medical centres, schools, water treatment facilities and sewerage pumping stations, evacuation centres, key telecommunication sites and significant shopping centres, as well as the essential sites for Ergon Energy's restoration effort.



Photo of repair works underway after Cyclone Yasi provided courtesy of Ergon Energy.

Fortunately during the flood events of December 2010 and January 2011, in townships including Rockhampton, Bundaberg, Toowoomba, Maryborough, Emerald, Dalby and Theodore, Ergon Energy's network did not sustain major damage. However for flood-related safety reasons, at least 10,500 homes and businesses had their power interrupted as a result of regional flooding.

Unfortunately this was not the case for the cyclones that hit the Queensland coast – damage to Ergon Energy's network and impact on residents was much greater. Table 1 provides data about the extent of impact to Ergon Energy's customers, and the speed with which Ergon Energy worked to restore power.

Cyclone Yasi damaged power supplies to nearly a third of Ergon Energy's customer base with extensive damage to the network from Cooktown to Sarina and west to Mt Isa. All up, the system interrupted the power to more than 220,000 homes and businesses and at least 50 major substations (**Stage 3** – **Distribution**) were off supply after the initial impact. In the worst affected areas the network had to be rebuilt from the ground up.



Figure 3: Ergon Energy's restoration by customer and date

Note: While approx. 220,000 customers lost power in Cyclone Yasi, this did not occur at the same time

One of Ergon Energy's key strategies in the overall restoration response was the deployment of a fleet of mobile generators throughout the communities hardest hit by Cyclone Yasi. Ergon Energy had 70,000kVA in generating capacity available for deployment, through both their own inventory and external providers. At the peak, and to meet customers' requirements, 155 generators were deployed in the field, with 109 generators running concurrently at one point while others were in transit or on standby. This meant that many communities were able to maintain basic services while repairs to the power network continued.

Table	1: Ergon	Energy's	extent o	f cyclone	impact	and	response	time
	11 21 9011	Linergy o	encente o	jejeiene	mpace		response	

EVENT	EXTENT OF IMPACT	RESPONSE TIME
Cyclone Tasha – 25 December 2010	About 8,500 customers off supply	48 hours restore power, where safe to do so
Cyclone Anthony – 30 January 2011	About 15,300 customers off supply	48 hours restore power, where safe to do so
Cyclone Yasi – 3 February 2011	About 220,000 customers off supply & 50 major sub- stations off supply	Restored power to 200,000 customers within 1 week, the balance within 3 weeks
Regional Flooding (December - January)	About 10,500 customers off supply	Usually 48 hours where safe, depending on peak

This overall strategy saw supply restored to all but around 20,000 homes and business within the first week. By comparison, in Cyclone Larry there were about 90,000 customers with interrupted supply initially and Ergon Energy had brought this down to around 15,000 customers off supply by the end of the first week.

In the case of Cyclone Yasi, the restoration of supply was completed for all properties able to be connected, after 23 days of Ergon Energy and others crews working long hours in extremely difficult conditions.

"Despite dreadful conditions, the hard work and expertise of the Ergon crews backed up by their ENERGEX and interstate colleagues saw all but 20,000 of the 200,000 properties blacked out restored within a week – a remarkable effort."

Hon Stephen Robertson, Minister for Energy and Water Utilities Ministerial Statement in relation to Cyclone Yasi

Total Ergon Energy customers affected (including flooding and cyclone impact): approx. 255,000

During the three week operation for the Cyclone Yasi response, Ergon Energy acquired and/or used for repairs or rebuilds:

- around 600km of cable and conductor line
- almost 2300 poles and cross arms
- 25,000 fuses and lightning arrestors
- 6700 insulators
- 350,000 hardware items like bolts, screws, brackets and clamps
- 1,340 personnel and support staff on the ground.



### **ENERGEX**

In January 2011 ENERGEX's assets were exposed to severe flooding across SEQ. The flash flood events in Toowoomba and the Lockyer Valley were followed by significant flooding in the Upper Brisbane Valley that resulted in flooding throughout SEQ not seen since the 1974 floods.



Damage to ENERGEX's infrastructure caused three significant effects for the ENERGEX electricity network:

- 1. Devastation of property including ENERGEX assets in the Lockyer Valley area.
- 2. Major pre-emptive interruption of electricity supply to approximately 150,000 customers at the time of the peak in SEQ (mostly in Brisbane and Ipswich).
- 3. The clean up and restoration of power to around 60,000 (of the total 150,000) homes and businesses affected by flood waters.

During the 2011 flood events, ENERGEX undertook the following proactive responses:

- Adopted actions to minimise the risk of damage to vulnerable assets and infrastructure, including disconnecting vulnerable substations and powerlines, and removing equipment from those substations at risk from floodwater.
- Liaised with other stakeholders including local governments and local disaster management groups (LDMGs).
- Determined what information needed to be provided to customers related to flood risks and public safety in a timely, efficient manner.
- Adopted a proactive, multi-faceted communications strategy to communicate with customers, industry stakeholders, government and employees to protect the safety of the community, minimise damage to assets and ensure the timely reconnection of electricity supply.

ENERGEX was well prepared for the January 2011 flood events as a result of the implementation of the Summer Preparedness Plan, the Business Continuity Plan (BCP) and the Corporate Emergency Management Plan which incorporated the Flood Risk Management Plan 2010/2011 that was developed when the La Niña weather system was identified and a high likelihood of an increased rainfall was forecast.



Figure 4: Graphical representation of ENERGEX response to the major flooding in SEQ January 2011

ENERGEX's priority at all times is to ensure the safety of the community and ENERGEX employees. ENERGEX's next objective was to restore power to the community as quickly as possible when it was safe to do so. This was to ensure that there were no electricity-related fatalities or injuries. There were no incidents that occurred during the flood that can be attributed to electrical faults or short circuits.

In the Lockyer Valley, the automatic switches that were tripped on the 33kV and 11kV powerlines worked as they should in an emergency situation and, as a result, there were no electricity related injuries or deaths.

On 21 January 2011, almost all customers that could be re-connected, were re-connected. At that time, there still remained many thousands of homes that were not capable of being re-connected or ENERGEX had not yet received advice that they could be re-connected. A small number of premises are still without power.

# Total customers affected at the time of flood peak 150,000. Specific damage to ENERGEX's assets included:

- 25 zone substations (33kV to 11kV) were switched off due to flood inundation of the substation or loss of incoming supply lines due to the flood
- 6 zone substations were directly affected by flood waters
- 95 poles had to be replaced, most in western region of SEQ
- 120 pad mount and ground distribution transformers were removed and replaced
- 98 kilometres of overhead conductors were replaced
- 10 major substations in Brisbane's CBD were impacted resulting in a loss of supply to 21 CBD buildings, with 4 CBD substations out of services for 7 days.

### **Powerlink**

Up to 20 per cent of Powerlink's assets (13,000 circuit kilometres of transmission network and 114 substations) were exposed to flood and cyclonic conditions during the statewide flooding and Cyclone Yasi. However, only 0.03 per cent of transmission assets sustained material damage during this period. During the natural disaster events and immediate recovery period, 99.9 per cent of bulk electricity supplies were maintained via the transmission network. The network proved extremely resilient, despite being exposed to extreme rain, flooding and cyclonic winds.

### 3 – What have we learnt?

Summer 2010/2011 showed that no matter how prepared Queensland is for floods and cyclones, there are still lessons to be learnt and improvements to be made.

According to the Council of Australian Governments, disaster resilience can be defined as **'the capacity to prevent, mitigate, prepare for, respond to and recover from the impacts of disasters'**<sup>1</sup>. Building resilience will enhance Queensland's ability to minimise the effects of future disaster events and to efficiently and effectively cope with their impacts. Resilience is a dynamic quality and is usually developed and strengthened over time. This can be achieved by guiding and supporting a range of resilience strategies in the key areas of built infrastructure, land use planning, emergency management and planning and community education capacity building.

Resilience, in the context of critical infrastructure, can be defined as the ability of an asset or system assets, to continue to provide essential services when threatened by an unusual event (e.g. a flood or cyclone) as well as its speed of recovery and ability to return to normal operation after the threat has receded<sup>2</sup>. Resilience also involves designing an infrastructure asset, or adapting an asset so that although it comes into contact with threats such as flood waters or high winds during flooding and cyclone events, no permanent damage is caused, structural integrity is maintained and, where operational disruption occurs, normal operation can resume rapidly after the threat has receded.

This Guideline is aimed at ensuring that Queensland will have in place a resilient electrical infrastructure network that will be able to recover to normal operation as soon as possible after the threat of flooding or a cyclone has receded. In doing so this Guideline provides key considerations in relation to the following:

- Electricity distribution
- Land use planning
- Emergency management and planning
- Building and design
- Community education

prepare

resilient

adjective

(of a substance or object)

'the capacity to prevent, mitigate, prepare for, respond to and recover from the impacts of disasters'

recover

Figure 5: Cycle of resilience

### **Considerations**

#### **Electricity distribution**

- Review the electricity network to identify and rectify any vulnerabilities following a flooding or cyclone event.
- Design and locate major electrical infrastructure in flood prone areas, that withstand a minimum 0.5% AEP.
- Design and locate major electrical infrastructure to withstand (where possible) cyclonic conditions.

### Land use planning



- Continued consideration of State Planning Policy 01/03 – Mitigating the adverse impacts of flood, bushfire and landslide (SPP1/03)
- Consideration by local governments to the long term resilience of the settlement and land use patterns in the course of preparing the strategic planning frameworks for new *Sustainable Planning Act 2009* compliant planning schemes.
- Electricity distributors and local governments liaise to highlight major and priority components of the network, allowing for greater protection.
- Ensure better protection of minor electrical infrastructure in future events by reviewing a level of immunity in private developments i.e. through the development assessment process.

#### **Emergency management and planning**



- Businesses are encouraged to have a Business Continuity Plan (BCP) in place that takes into consideration the impacts of potential loss of power and a checklist for the critical BCP components.
- Ongoing vegetation management programs to be implemented to ensure that trees and branches are kept away from powerlines.
- Electricity distributors continue to have early and ongoing representation in disaster management groups (both local and statewide) in future flooding and cyclone events.
- Distributors, with local and State governments, to determine the appropriate strategies to be included in contingency plans for the most efficient restoration of power supply for critical infrastructure sites.

#### **Building and design**

- In new high rise buildings raise electrical equipment, where possible, to improve resilience and provide greater protection.
- When retrofitting existing buildings, at a minimum the low voltage switchboard should be configured to allow generation connection.
- Potential review of existing regulations in order to (where possible) consider how design outcomes can be better regulated to ensure that electrical equipment in high rise buildings is designed to be more resilient.

#### **Community education**

- Understand reasons for disconnection of power supply in flooding or cyclones in order to manage expectation in future events.
- Ensuring electrical safety practices are undertaken before, during and after flooding and cyclone events.
- Where possible and known, homeowners are recommended to ensure greater resilience by locating, at least, their switchboards above the Defined Flood Level (DFL).



<sup>1</sup> Council of Australian Governments, 2009 'National partnership agreement on natural disaster resilience '

<sup>2</sup> Ciria, 2010 'Flood resilience and resistance for critical infrastructure'

### 4 – Electricity distribution



Despite the many successes of the electricity distributors in responding to the events of summer 2010/2011, there is still room for improvement.

### Placement

Electricity distributors should locate, where possible, major electrical infrastructure including substations outside flood and cyclone prone areas. Strategic placement of assets is a critical factor and as long as electricity distributors continue to make informed decisions about the placement of major electrical infrastructure assets, this will serve to improve the resilience of Queensland's electricity network. However, where potential risks to substations cannot be avoided by locating infrastructure outside hazard areas, electricity distributors should implement the following recommendations to achieve greater short term, long term and ongoing resilience.

### Load control and switching

By having appropriate control of network supply the risk of outages can be managed. Distributors should ensure that substations at potential risk have supply switching capabilities so that the majority of customers continue to have supply where it is safe to do so.

### **Review of network**

Following flooding or a cyclone, it is recommended that electricity distributors review their networks to highlight vulnerabilities and problems that were identified during the event.

### Electricity distributors should locate, where possible, major electrical infrastructure including substations outside flood and cyclone prone areas.

### **Resilience in action:**

After the major flood in SEQ in January 2011, ENERGEX identified a vulnerability in the western Brisbane suburbs of Bellbowrie, Moggill and Anstead where many customers were disconnected from electricity supply (despite not being directly affected). Since the event, ENERGEX has reconfigured the electricity supply network to ensure that the majority of unaffected customers can be supplied with stand-by generation.

### Flood prone areas

### Major substation design

Substations that supply areas that are subject to flooding are not required to function effectively during a flood event (power and water don't mix). It is however vital that they function immediately after the event. As required by SPP1/03 for community infrastructure, it is recommended that substations in flood prone areas, at least, ensure that the sensitive electrical equipment on site, for example transformers, control cabinets, neutral earth reactors and switch gear, are above 0.5% AEP flood levels. As seen in Figure 6, while the entire substation is not raised above the 0.5% AEP flood levels, the sensitive electrical equipment to normal operation as soon as the threat of the flood has receded. This has occurred for major substations built after SPP1/03 and this resulted in impacts being largely restricted to older substations.

### Distributor substations (in CBD)

For a distributor to ensure the resilience of its network, it needs to be able to ensure that the electricity supply to the building (generally 11kV), the switchgear and transformers (generally 11kV/low voltage) are located and designed above the Defined Flood Level. Distributors do not currently have the ability to enforce this. Traditionally substations have been placed in basements rather than ground level (or above) due to the desire not to use prime retail space. A change to location of these substations in CBD situations would improve the resilience of substations against future events.

Figure 6: Example of resilient substation design with all sensitive electrical equipment raised above the flood level





Photo 1: Example of an older, non-resilient substation design

### **Powerlines**

For major powerlines, distributors should ensure that the Defined Flood Level (DFL) for an area is taken into account during the design of the service. The linear nature of powerline corridors means that it is often impossible to avoid areas below the DFL. Where this is not possible, the poles/towers in the flood prone area should be designed to withstand the impacts of a flood event.

This approach will resolve the "Dry Islands" scenario where there are powerlines going through flood prone areas that have to be switched off, that supply predominantly unaffected premises. Where this is practical and cost effective, this should include:

- Ensuring the network's ability to switch off flood affected powerlines that are "spurs" (preferably remotely).
- Reconfigure powerlines into "wet" and "dry" lines to limit the number of 11kV powerlines affected by a flood event (so that the network is structured so that "wet" powerlines only need to be switched off). While this would still result in some unaffected premises losing supply, the number and duration of impact would be greatly reduced.

### Cyclone prone areas

### **Australian Standards**

With regard to structures in cyclone prone areas, electricity distributors are required to design substations in accordance with AS 1170.2 – Structural Design Actions: Part 2 Wind Action. This Standard was prepared by the Joint Standards Australia/ Standards New Zealand Committee (the Joint Committee), BD- 006, General Design Requirements and Loading on Structures.

The objective of this Standard is to provide direction for use in the design of structures subject to wind action. It provides a detailed procedure for the determination of wind actions on structures, varying from those less sensitive areas to wind action to those for which dynamic response must be taken into consideration.

The Joint Committee is considering possible amendments to the Standard after the recent severe wind events, including Cyclone Yasi. The review of the Standard as a result of the recent cyclone events is recommended and is considered to contribute to greater resilience of substations in cyclone prone areas in future events.

### Key electrical infrastructure assets

It is recommended that investment in underground infrastructure and bundled overhead lines continues in cyclone prone areas of Queensland where it is safe to do so and in a similar manner to the Cyclone Area Reliability Enhancement (CARE) Program being run by Ergon Energy.

It is important to recognise that underground powerlines are not suitable for all locations. In particular, this relates to areas that are prone to storm tide inundation. In these locations, overhead bundled cable may be more appropriate, as seen in Photo 2.

It is recognised that it can be extremely expensive to transfer electrical infrastructure underground, however it is recommended that where appropriate and subject to budgeting and a works program, consideration should be given to undergrounding electrical infrastructure.



Photo 2: Courtesy of Ergon Energy - Highway through Cardwell post Cyclone Yasi, featuring overhead bundled cable

### **Additional considerations**

### **Ongoing actions**

Electricity distributors are recommended to undertake the following actions to ensure that ongoing improvements are made to the resilience of electrical infrastructure in Queensland:

- Annual reviews of emergency plans and BCPs.
- Annual reviews of Summer Preparedness Plans to ensure these documents reflect up to date data and incorporate best practice approaches for natural hazard resilience and mitigation and emergency response practices.
- Review maintenance issues to improve the vulnerability of assets in floods and cyclones including vegetation management in collaboration with relevant local governments.
- Strengthen relationships with local governments to ensure better communication between electricity distributors and local governments during floods and cyclones.



Photo of powerlines damaged by fallen vegetation in Tully Heads, courtesy of Ergon Energy



### 5 – Land use planning



Land use planning has a critical and ongoing role to play in ensuring that planning, from the strategic planning framework down to the site based detailed development assessment level, consider better protection of electrical infrastructure in flooding and cyclones. Efficient land use planning will also assist in ensuring minor electrical infrastructure in private homes and businesses will be better protected, which is a significant component of the statewide electricity network.

### Statewide planning mechanisms

State Planning Policy 1/03 - *Mitigating the adverse impacts of flood, bushfire and landslide* (SPP1/03) is a statewide planning policy and has effect in the assessment of development applications, in the making and amending of local government planning schemes and in the consideration of community infrastructure. SPP1/03 encourages local governments across the State to adopt and identify natural hazard management areas (flood). It is recommended that local governments continue to ensure that SPP1/03 is considered in all land use planning decisions. The Authority has prepared a draft Guideline *Planning for stronger, more resilient floodplains* which provides further advice for Councils in the consideration of SPP1/03 and the potential adoption of natural hazard management area (flood). Refer to www.qld.gov.au/floodcheck.

The *Queensland Coastal Plan* is a new statewide planning document which applies to the Queensland coastal zone. The plan has two parts: the State Policy for Coastal Management, containing policies for coastal land managers and the State Planning Policy for Coastal Protection, for planning and assessment decisions made under the *Sustainable Planning Act 2009* (SPA). Under the Coastal Plan, adaptation planning guidelines for local governments are being prepared to assist councils in addressing risks faced by communities over the long-term. It is recommended that local governments in the coastal zone commence preparation of adaptation plans to minimise the exposure of communities to the risk of adverse coastal hazard impacts. This includes the better protection of critical infrastructure including electrical as it relates to development in the coastal zone.

### Strategic planning

In the course of preparing the strategic planning frameworks for new SPA compliant planning schemes, consideration should also be given by local governments to the longer term resilience of the settlement and land use patterns within the local government area to these events. While it is acknowledged that this is a matter to be implemented over the long term, the preparation of these new planning schemes offers the unique opportunity now to ensure the strategic planning frameworks include consideration of resilience in directing future growth, infill and land use compatibility in these areas specifically in relation to natural hazards.

### Coordination

For both flooding and cyclone prone local government areas, it is recommended that local governments and electricity distributors coordinate their planning activities to highlight major and priority components of the electrical infrastructure network. This coordination could result in the development of a database, for example a Geographical Information System (GIS) layer, that identifies key electrical infrastructure assets across the local government area. Once these assets are known, it is important that local governments ensure these assets are protected from the impacts of flooding and cyclones development through making informed land use planning decisions.

### **Development assessment**

It is important to consider the location and design of electricity infrastructure in relation to development occurring in flood prone areas. There are two main scenarios that need to be considered: new development and existing development commitments.

#### Proposed new development (including Building Works)

There needs to be consideration of new developments (particularly high rise buildings and other major developments that require a substation on-site) and new subdivisions (large enough to be supplied from a pad mount transformer). Refer to section 7 'Building and Design'.

For proposed subdivisions that are large enough to be supplied from a pad mount transformer it is crucial that local governments and developers work together to design an efficient layout. Typically, in these cases the pad mount transformers have been placed on the least valuable part of the land which is usually low lying and therefore more likely to be affected by flooding. It is recommended that local governments require developers of new large lot subdivisions to locate electrical infrastructure above the DFL, or if the DFL is unknown to at least in an area that is considered less likely to flood (See Figure 7).

## Existing development commitments (where construction has yet to commence)

Where there are existing development commitments, it is important that local governments and developers consider opportunities for developments that have yet to gain building approval to be re-designed (where possible) to ensure greater resilience in future flooding and cyclone events. It is recognised that this can bring significant cost and therefore this needs to be considered as part of a cost/benefit analysis however, this cost needs to be considered in respect of downtime, loss of rent and repair bills.

Figure 7: Recommended and not recommended placement of padmount transformers supplying a subdivision development



### 6 – Emergency planning and management



### **Business continuity/preparedness plans**

Preparing for a natural disaster event is a crucial step in ensuring better understanding and performance during and after flooding or a cyclone. It is everyones' responsibility to be prepared for natural disasters, including businesses. The Department of Employment Economic Development and Innovation (DEEDI) has developed a basic template for a Business Continuity Plan (BCP) to ensure that businesses of all types and sizes are adequately prepared in Queensland for future natural disasters.

To access a copy of the Queensland Government Business Continuity Template visit: www.business.qld.gov.au/documents/business\_ continuity\_plan\_template.doc.



Figure 8: Business Continuity Planning Process

### **BCP checklist**

It is accepted that key industries will want power restored as soon as possible after an event. As has been outlined in this Guideline, there are a number of reasons why the power is sometimes required to be switched off and therefore businesses have a responsibility to ensure that they have their own preparedness plan in place.

It is essential that industry and businesses have a well defined and regularly reviewed BCP that has electricity supply as a priority component if this is a critical element of the business operations.

To ensure your business is adequately prepared it is recommended that your BCP at least includes the following components:

- 1. Risk management
- 2. Business impact analysis
- 3. Incident response plan
- 4. Emergency kit
- 5. Roles and responsibilities
- 6. Contact list
- 7. Events log
- 8. Recovery



### Resilience in action:

Through lessons learnt from Cyclone Larry, dairy farmers in North Queensland were well prepared for Cyclone Yasi. After Cyclone Larry it was 22 days until all dairy farmers on the Atherton Tableland could access the main power supply.

As a result of this previous event, the majority of farmers invested in backup systems that could run their dairy plant and milk vats during extended power outages.

Thanks to business continuity planning and investment, recovery from Cyclone Yasi was much easier on farmers across the Tableland, with only two farms having significant operational difficulties.

#### **Vegetation management**

One of the most challenging aspects in relation to loss of power supply is tree damage to powerlines. Initial investigations revealed the bulk of the outages in some communities were caused by fallen trees, branches and vegetation coming into contact with powerlines.

Ongoing vegetation management programs implemented by electricity distributors regularly keep trees and branches away from powerlines. However, the destructive winds of Cyclone Yasi blew hundreds of trees, in some cases large distances, into powerlines as seen in Photo 3. In SEQ, major storms can also cause tall trees to bring down powerlines.

Tree planting policies and species lists are currently developed in collaboration with local governments as part of the Plant Smart program. Significant progress has been made in this area over the past few years. To further understand the extent of the impact of vegetation on the electricity network, Townsville City Council and Ergon Energy have engaged Greening Australia to prepare a report on tree damage as a result of Cyclone Yasi. This sort of collaborative work is encouraged and seeks to

improve resilience of electrical infrastructure.

Smarter choices when planting near powerlines and in cyclone prone areas may be able to reduce the impact of storms and cyclones on the electricity network in the future. For further information visit: www. ergon.com.au/ community--and-our-network/treesand-powerlines/ plant-smart.



Photo 3 courtesy of Ergon Energy – Repairing the network in Tully

### Access

Adequate access was a major issue for electricity distributors during the events of summer 2010/2011 (as seen in Photo 4). Restricted access can create significant problems for electricity distributors in floods and cyclones as it can impede staff mobilisation, the movement of equipment and the supply of basics such as food and water. It is recommended that electricity distributors continue working with the Queensland Government through the State Disaster Coordination Committee (SDCC) to address the issue of access, particularly in relation to road closures and accommodation requirements, for future events.

### **Critical infrastructure**

The events of summer 2010/2011 highlighted the need for electricity distributors to work more closely with local governments and State government agencies to improve emergency planning and management in relation to critical infrastructure. It is recommended that the relevant bodies undertake a review to identify the power supply security of critical infrastructure including the following:

- evacuation centres
- medical centres
- schools
- water treatment facilities
- sewerage pumping stations
- telecommunication sites
- significant shopping precincts.

It is crucial that the relevant bodies work together to determine the appropriate strategies to be included in local government contingency plans for the most efficient restoration of power supply to critical infrastructure sites. Supply security for critical infrastructure sites should be given priority in each local government business continuity plan.

It is important to highlight that the 2010/2011 summer events saw a significant rise in the use of telecommunications and the internet, particularly social media, which should be considered as part of emergency plan reviews undertaken by telecommunication providers.

Additionally, there is a need to continue the conversations about identifying where emergency evacuation centres will be and to confirm the supply/emergency generation requirements, via LDMGs, prior to a disaster situation.

Restoration of power to critical infrastructure sites such as those listed above is crucial as this will ensure that, where possible, communities affected by floods and cyclones will at least be able to maintain basic services while repairs to the network continue.

### Local Disaster Management Groups (LDMGs)

While electricity distributors coordinated the allocation of generation to critical infrastructure sites with the LDMGs in the events of summer 2010/2011, discussions are being held with local government and State government partners to ensure enhanced business continuity and preparedness for the future.

It is crucial that in future floods and cyclones, LDMGs and electricity distributors have open lines of communication and continue to work collaboratively. This includes LDMGs ensuring that distributors are aware of crucial electrical services and assets within the local government areas prior to an event.

Distributors will turn off the power for safety reasons but this should occur in consultation with the LDMGs. Due to this crucial relationship between distributors and LDMGs during floods and cyclones, it is recommended that there continue to be representation of electricity distributors on all LDMGs and disaster committees around Queensland during floods and cyclones.



Photo 4 Flood inundation of a motorway in Goodna resulting in road closure courtesy of Queensland Government



Photo courtesy of Queensland Government - Brisbane business owner back on track after January 2011 event

Business owners need to meet certain obligations under the *Electrical Safety Act 2002* and *Electrical Safety Regulation 2002*. As a minimum, this includes:

- inspecting, testing and tagging electrical equipment and extension cords on a regular basis
- using safety switches in certain situations
- removing defective equipment from service
- removing safety switches from service if they are defective
- only using power boards which incorporate a safety switch or overload protection device
- having a licensed electrical contractor to install extra electricity outlets if necessary
- protecting extension leads and flexible cables from damage, e.g. using a flexible cover to provide protection against crushing or other damage in pedestrian and vehicle traffic areas.

### 7 – Building and design



### Building and design in disaster areas

In a flooding situation, the electricity infrastructure that supplies a development must be located and designed to be as resilient as practicable during and after the event. The level of resilience is not only determined by the development's ability to withstand the flood event but also its ability to return to the same level of function after the flood event occurs in a timely and cost efficient manner.

### **New buildings**

Building owners need to be aware that flood inundation and other impacts on a building's electrical equipment can lead to costly repairs and significant impacts on the building.

#### Elevation

The elevation of utilities and equipment within a building is a way of reducing the risk associated with flooding. By raising utilities and equipment above a DFL, water inundation of electrical equipment can be avoided and the equipment can be put back into use sooner as it will have sustained less or no damage during the event. See Figure 8 for examples of resilient and non-resilient electrical fit out designs.

### Is there generation connection available?

It is critical that when designing new buildings there is a connection for generation available and that this connection point is easily accessible. This will ensure that, where possible, in a flood or cyclone building owners and/or operators may be able to organise temporary power supply through the use of a generator.

### **Resilient Materials**

The use of resilient materials in construction can provide longevity to the structural integrity of a building. Materials such as solid timbers, steel and concrete are more resilient to flood waters.

### **Equipment protection**

Wet flood proofing is a method of component protection that aims to prevent flood water from inundating vital components within buildings in flood prone areas – meaning it allows for flood water to enter the building but protects the critical components from damage. Sandbagging water entry points and elevating equipment are methods of temporary wet flood proofing.

Dry flood proofing is another method of component protection where measures are taken to keep flood water completely outside a structure – meaning that water is not meant to enter the area where the equipment is stored and if it does, there is likely to be minimum damage. In relation to electrical infrastructure, sandbagging water entry points, creating water channels to redirect water flow and the use of portable diversion devices (inflatable levies and barriers) are ways of dry flood proofing.

### **Retrofitting existing buildings**

There may also be potential to retrofit existing services for greater resilience. The best outcome to ensure that electrical infrastructure is flood resilient is to ensure that the supply to the building is located

above the DFL. In many instances this is cost prohibitive and the size of the equipment to be moved could mean significant construction works to make space available. This may not be an option in all circumstances (e.g. a heritage building). However where possible, a cost efficient option is to raise the low voltage switchboard above the DFL. Further resilience can be achieved in this case by ensuring that the raised low voltage switchboard also has an emergency generation connection point. This will ensure that the building is reconnected to power supply as soon as possible due to less damage being sustained.



Photo 5: Low voltage switchboard courtesy of Queensland Government

For existing buildings, where it is not cost efficient or possible to raise the low voltage switchboard (as seen in Photo 5), building owners should at least aim to ensure that there is an emergency connection point above the DFL and wet flood proofing which allows for a greater level of resilience to be achieved in the recovery stage.



Figure 8: Scale of resilience of electrical equipment in CBD buildings

### 8 – Community education



### Why does the power go off?

Power is often required to be disconnected in floods and cyclones for safety reasons. Water and electricity do not mix and it is important that the electricity network is managed in flooding and cyclones to ensure that people do not sustain electricityassociated injuries during such events. While being without power can be an inconvenience, it is important to understand that this is done for the benefit and safety of everyone. Furthermore, pre-emptively disconnecting power ensures that electrical infrastructure sustains less damage during a flood or cyclone event meaning that power can be restored more quickly.

It is impossible to be precise in relation to the duration without power following cyclone impact, because circumstances vary widely due to factors such as intensity, location, population density, extent of infrastructure damage, tides at impact and weather before and after creating access difficulties. However, to assist in managing expectations about the approximate period of time power interruptions may occur during a cyclone, please consider the following general estimates:

- Category 4/5 power restoration more than one month.
- Category 3 – power restoration up to a month.
- Category 2 – power restoration between one and two weeks.

For floods, it is more difficult to estimate the expected period of time that you may be without power as this depends on a number of factors including:

- The damage to the dwelling's electrical installations. •
- The scale of the flooding event.
- The location of your house and the part of the network to which you are connected.
- The estimated time of the peak of the event and estimated time it will take for water to recede.

Due to the possibility that your household may be without power for an extended period (in the event of both flooding and cyclones), it is critical that you are adequately prepared.

### Electrical safety in floods and cyclones

This information has been sourced from the Department of Community Safety, Ergon Energy and ENERGEX. Electrical safety is critical for all people at all times. Natural disasters such as flooding and cyclones raise the risk of electricity-related incidents so a higher level of vigilance is needed. The following tips are recommended to prevent electrocution or injuries from electricity in the event of a flood or cyclone:

#### **Before**

- Install a surge protector in your home to help protect sensitive electronic equipment.
- If you are in a flood prone area, consider relocating your switchboard and any wiring in your home that may be below the DFLs.
- Tidy up unsecured objects around your home and yard and trim loose or dying branches. Call a professional tree trimmer if they're near powerlines.

- Ensure mobile phone batteries are fully charged and have a cord phone ready as cordless phone base stations do not work without electricity.
- Turn off and unplug electrical appliances including computers, TV, DVD and VCR aerial cables and move electrical equipment to higher ground.

### During

- Follow instructions from authorities, listen to a battery-operated radio for official advice and power restoration information, and be prepared to evacuate if necessary (where a battery operated radio is unavailable, the car radio may be useful for a short time).
- Do not check the state of your electrical appliances during a • natural disaster event.
- Do not operate electrical appliances or switches while standing • in water.
- If moving around your area in boats, be aware of reduced powerline height clearances as flood waters will make you closer to the powerlines and power poles can also move from the force of flood waters.

### After

- Stay well away from fallen power lines. Always assume they are 'live' and dangerous. Report them immediately to Triple Zero (000) or the electricity distributor's emergency number.
- If you experience tingles or shocks from an electrical appliance or water taps or if you are hurt call Triple Zero (000), call your local electricity supplier to notify them and call your licensed electrical contractor to check your electrical wiring immediately
- Unplug and do not use all electrical appliances affected by water and have them inspected by a licensed electrical contractor before use.

Take extra care around your switchboard if it's outside and wear synthetic or rubber-soled shoes. If you are in any doubt about the switchboard's safety, stay clear and call your licensed electrical contractor.

### Generators

It is extremely dangerous to use generators in an enclosed place. Please ensure that if you use a generator in your home to provide temporary power supply that you do not place the generator in an enclosed place as this can lead to carbon monoxide poisoning, which may be lethal (see Figure 9).

### When using a generator you must ensure it is outside.





Figure 9: Correct location for home generators

**Do not** modify and plug generators directly into power points in the home or into any part of the distribution network. Plugging a generator into a power point will send electricity through the switchboard and into powerlines either on the ground or poles. That poses a significant safety risk to Electricity staff working on powerlines or neighbours cleaning up around fallen powerlines. Note:

- Appliances can be plugged directly into the generator but always read the manufacturer's instructions carefully.
- Use a heavy-duty extension cord rated for outdoor use.
- Always follow the manufacturer's recommendations for earthing the generator.

If you want to energise your household wiring, have a licensed electrical contractor install an isolating switch to provide a safe and permanent connection from your generator to your household wiring. This will prevent your generator from back feeding powerlines, avoiding a safety hazard to you, your family, neighbours, and power workers, and preventing possible damage to your generator when mains power is restored.

### Electrical equipment – mains power supply

As a homeowner in a flood prone area, it is recommended that where possible you ensure greater resilience of your own electrical utilities by locating your switchboard and meter boxes above the DFL, as seen in Figure 10. If the DFL is known, it should be specified by your relevant local government authority, usually through the local planning scheme.

It may also be beneficial to locate some power points above the DFL to provide power supply during the clean up operation when supply becomes available and it is safe to use appliances. This is a low cost solution that can greatly improve the resilience of the property after the event. A good location is at the switchboard. It may then be possible to supply power to that power point so that you do not need to use a generator in the cleaning process or to supply a fridge.

If you do choose to elevate your switchboard or meter box, it must be in a position that allows sufficient access for electricity distributors and/or qualified electricians who may need to access your equipment. The meter must be able to be read by a meter reader, which in some instances may need to be below the DFL and separate from the switchboard. Separating the meter and the switchboard in this case will allow the switchboard at least to be above the DFL.

The purpose of elevating electrical equipment in your home is to ensure that your equipment will not be inundated in a flooding event. It is important to understand that elevating the electrical equipment will not mean that you won't lose power. Rather, it will assist you in sustaining less damage to the electrical equipment in your house, which will ultimately mean you will be reconnected to power supply sooner.



Photo of repairs in Cardwell provided courtesy of Ergon Energy

### **Preparedness**

Regardless of the type of natural disaster your house may be susceptible to (flooding or cyclones) it is crucial that you are adequately prepared. It is important to plan ahead and be prepared so that during an emergency you and your household know what to do, where to go, how to keep in touch with each other and how to contact emergency services as required.

It is recommended that you undertake the following basic steps to ensure you are prepared for future natural disasters:

- Prepare an emergency plan and prepare for evacuation.
- Develop your emergency plan with as many household members as possible to ensure everyone understands the risks and appropriate actions to take in an emergency.
- Prepare an emergency kit this should include at least: food and water, medical and sanitation supplies, light, communications, clothing and footwear, tools and supplies and important documentation.
- Prepare your home the best time to do this is before the event.

For further assistance relating to disaster preparation and evacuation planning including a checklist to prepare your own evacuation plan visit www.emergency.qld.gov.au/emq/css/beprepared.asp

Source: Department of Community Safety

Is your electrician licensed? Check here: www.deir.qld.gov.au/elis/



Figure 10: Preferred positioning for dwelling switchboard

For more information on electrical safety in flooding and cyclones visit: www.justice.qld.gov.au/corporate/floods or contact: Ergon Energy on 13 10 46 ENERGEX on 13 12 53 Essential Energy on 13 20 80 Electrical Safety Office on 1300 650 662

## Resilience in action – regulatory amendments

### Amendment to the Queensland Development Code

The Australian Building Codes Board has recently released a new Draft National Standard for Construction of Buildings in Flood Hazard Areas (draft Standard). The draft Standard is scheduled to be included in the 2013 version of the Building Code of Australia.

The draft Standard provides specific performance requirements and deemed-to-satisfy provisions for the design and construction of new buildings, including new additions, in designated flood hazard areas. In Queensland, flood hazard areas are designate by Local Governments. To ensure the new standards are implemented as soon as possible in Queensland, the Government is accelerating amendments to incorporate the new draft Standard into the Queensland Development Code (QDC). The accelerated amendment to the QDC includes a provision (section 2.12.2 Electrical) which specifies that electrical services are to be either located above the flood hazard level or constructed in a flood proof manner.

This fast tracked regulatory amendment supports the intent of this Guideline by increasing regulation of the placement and function of electrical services which will improve the resilience of Queensland's electrical infrastructure in future flooding events.



# Brisbane City Council's new draft condition

In response to the flooding events on January 2011, Brisbane City Council (BCC) has prepared a new draft condition for all new construction and substantial improvements of basements below the 100 year ARI flood level (and/or Brisbane River Defined Flood Level) to ensure the structure is suitably waterproofed with walls and floors substantially impermeable to the passage of water.

Specifically, the new draft condition states that 'no essential electrical services (e.g. electrical switchboard or lift controls) are to be located in the basement unless situated above the DFL or 100 year ARI flood level".

*BCC's new draft condition supports the key considerations highlighted in this Guideline through ensuring better protection of minor electrical infrastructure in future events by enforcing a level of immunity in private developments through the development assessment process.* 

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### **Suncorp Stadium**

During the January 2011 floods, Suncorp Stadium incurred major damage to essential equipment servicing the Western Stand including:

- The main switchboard, 13 supporting switchboards and Energex sub-station
- The fire control and EWIS system
- Eight elevators

The building distribution room which housed major operating systems that provided key services to the Stadium, including:

- CCTV
- In-house television network
- Access control
- Lighting control
- PABX
- Ticketing control system
- Building management system
- Core network



## **Resilience in action** – reconstruction works

To ensure that the Stadium was as resilient as possible to any future flood inundation, the following reconstruction work has taken place:

The main switchboard room has been elevated above the flood level so that this switchboard can continue to operate via generator power until mains power is reinstated to the building. This would result in no loss of power to the Stadium. Supporting switchboards have also been elevated.

The fire panel and EWIS system has also been raised above the flood level to ensure the Stadium continues to be connected to Queensland Fire and Rescue Service and fire alarms monitored at all times.

The building distribution room has been constructed above the flood level so that all main operating systems of the Stadium will function uninterrupted during any future event.

Utilised flood resistant materials wherever practical including block walls and elevated and relocatable fixtures and fittings.







