PROPOSED ISAAC REGIONAL PLANNING SCHEME

FEASIBLE ALTERNATIVES ASSESSMENT REPORT – FLOODING HAZARDS

NOVEMBER 2017



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1.0 Purpose of report

The purpose of this report is to outline Isaac Regional Council's proposed planning scheme approach to reducing risks to persons or property resulting from flooding hazards at Carmila and Clermont.

The proposed Isaac Regional Planning Scheme includes those areas of:

- Carmila West Road, currently in the Broadsound Planning Scheme in the Village (Rural Centre) Preferred Use Area, in the Rural zone;
- Clermont, west of Capricorn Street affected by flooding, only those lots currently in the Belyando Planning Scheme in the Urban zone, in the Limited Development zone.

This report considers alternative approaches to those planning changes contained in the proposed planning scheme to determine their feasibility, as required by Section 30(4)(e) of the Planning Act, 2016.

2.0 Description of sites affected by the proposed planning change

The real property description and site address of these areas is listed in Attachment 2.

The sites affected by the proposed planning changes are shown on Maps 1 and 2 in Attachment 1.

Sites surrounding these areas to the west experiencing similar levels of flooding risk are not considered to have experienced the same level of planning change given they are currently zoned Open Space and Recreation (not Urban) in the Belyando Planning Scheme.

3.0 Anticipated risks to affected properties due to the flooding hazard

3.1 Carmila West Road

The best available flood hazard information for these areas is the Queensland Floodplain Assessment Overlay (QFAO) (see **Map 3 of Attachment 1**). The Qld Government data website states that this mapping:

represents a floodplain area within drainage sub-basins in Queensland. It has been developed for use by local governments as a potential flood hazard area. It represents an estimate of areas potentially at threat of inundation by flooding. The data has been developed through a process of drainage sub-basin analysis utilising data sources including 10 metre contours, historical flood records, vegetation and soils mapping and satellite imagery. This data represents an initial assessment and will be subject to refinement by respective Local Government Authorities.

Detailed flood hazard studies have not been undertaken for the areas affected by the proposed planning change.

Given this QFAO mapping does not identify important flood behaviour information related to the depth and velocity of flood waters affecting these sites it is difficult to make an accurate assessment of the risks posed to life and property by flood waters on the affected areas.

In the absence of this information, a conservative assessment of flood risk to the affected areas is considered prudent acknowledging:

- the extent of flooding across the affected area;
- its proximity to Carmila Creek; and
- its location immediately downstream of a narrowing of the floodplain which would likely result in increased velocities of flood waters during a flood event.

These risks would pose a potential danger to life and property in the event of a flood, in particular a major flood event.

3.2 Clermont

The best available flood hazard information for these areas is the Queensland Floodplain Assessment Overlay (QFAO) (see **Map 4 of Attachment 1**) The Qld Government data website states that this mapping:

represents a floodplain area within drainage sub-basins in Queensland. It has been developed for use by local governments as a potential flood hazard area. It represents an estimate of areas potentially at threat of inundation by flooding. The data has been developed through a process of drainage sub-basin analysis utilising data sources including 10 metre contours, historical flood records, vegetation and soils mapping and satellite imagery. This data represents an initial assessment and will be subject to refinement by respective Local Government Authorities.

Detailed flood hazard studies have not been undertaken for the areas affected by the proposed planning change.

Given this QFAO mapping does not identify important flood behaviour information related to the depth and velocity of flood waters affecting these sites it is difficult to make an accurate assessment of the risks posed to life and property by flood waters on the affected areas.

The historical flooding of this area and the surrounding areas is well documented and recognised as flood affected by the community of Clermont. Historical records indicate that past flooding in this area has been at depths and velocities which would pose a risk to life and property in a large flooding event.

4.0 Existing uses

The existing uses of the land affected by the proposed planning changes are described below.

4.1 Carmila West Road

Map 5 of Attachment 1 shows a recent aerial image of the land affected by the proposed changes. As indicated on this map the predominant use of the land is for primary production and agriculture. Some ancillary residential and non residential buildings are located on parts of lots 52 MC214, 42 MC214 and 41 MC208 adjacent to Carmila West Road

4.2 Clermont

Map 6 of Attachment 1 shows a recent aerial image of the land affected by the proposed changes. As indicated on this map the primary use of the land is vacant or used for a range of non urban uses such as grazing and agistment of stock.

A small number of exceptions in the form of detached residential uses are occurring on:

- Lot 21 CLM602, Lime Street;
- Lot 40 CLM602, Mimosa Street; and
- Lot 54 CLM602, Mimosa Street.

5.0 Existing planning scheme arrangements

The existing planning arrangements for the land affected by the proposed planning changes are described below.

5.1 Carmila West Road

The affected lots on Carmila West Road are currently included in the Broadsound Planning Scheme in the Village (Rural Centre) Preferred Use Area (see **Map 7 of Attachment 1**). This designation is intended to encourage a range of urban uses and amenities at a village scale. The establishment of a "house' under this planning scheme is exempt development.

The Broadsound Planning Scheme states that the following defined uses are consistent uses in the Village (Rural Centre) preferred use area

- Aquaculture (Minor)
- Business
- Caravan Park
- Community facility
- House
- Industry (Light)
- Motel
- Multi unit dwelling
- Open Space
- Outdoor Sport and Recreation
- Second house
- Service station
- Telecommunications facility
- Utility (Local)

The Broadsound Development code, which regulates development activity includes a range of provisions relevant to the development of this area. Of specific relevance to this area, the planning scheme states:

- 4.14 Specific outcomes and probable solutions—public safety
 - a) Uses are not established and lots are not reconfigured to expose people and works to natural or introduced hazards, including permanent or temporary occupation of, or access to, areas subject to
 - o erosion

- o flood
- o landslide
- o storm tide inundation
- o subsidence

Although these and other relevant provisions regulate the way in which development occurs, and may in effect preclude development from the affected areas, it is clear that the Broadsound Planning Scheme contemplates that urban uses and amenities would occur in areas within this designation, albeit within the capacity of infrastructure and of a scale in keeping with the village character of Carmila.

5.2 Clermont

The affected lots at Clermont are currently included in the Belyando Planning Scheme in the Urban zone (see **Map 8 of Attachment 1**). This designation is intended to encourage a range of urban residential and complementary non residential uses. The Planning Scheme states:

4.2.2.2 Code Purpose

The following outcomes are the purpose of the code:

(1) The Urban "Zone" accommodates a range of "residential activities" and "community oriented activities" that meet local community needs. A mix of "dwelling units" which provide for permanent accommodation is predominant, with a significantly smaller proportion of other forms of accommodation intended for temporary residents.

and

- (4) Within the Urban "Zone", the following are appropriate "uses":
 - (a) "detached house" on a lot of 600m² or more;
 - (b) "detached house" on a lot less than 600m² where a high standard of residential amenity can be achieved both within and external to the site;
 - (c) "accommodation building", "bed and breakfast premises", "caravan or relocatable home park" or "multiple dwelling" where they:
 - are of a scale, form and character that is consistent with surrounding development;
 - are suitably integrated with the surrounding locality and designed to promote connectivity to the wider community;
 - promote a high level of residential amenity and safety within and external to the site;
 - (d) "home business" where a high standard of residential amenity can be achieved both within and external to the site;
 - (e) "community oriented activities" where they are:
 - located on the site of an existing "community oriented activity" and do not unduly impact on the character and amenity of surrounding "uses" or
 - where they are of a small scale and are compatible with the character and amenity of surrounding "uses";

From these provisions it is clear that the Belyando Planning Scheme contemplates that urban uses and amenities would occur in areas within this zone.

6.0 Proposed planning change

6.1 Carmila West Road

The affected areas are proposed to be included within the Rural zone (see **Map 9 of Attachment 1**). The inclusion of these areas in this zone reflects their existing predominant land use and reduces the potential for new urban types of land uses which are sensitive to flooding to expand into and establish in an area subject to known flooding.

The Rural zone will enable the existing land use activities to continue and for flooding impacts on new development to be assessed and regulated through the provisions of the Flood Hazard Overlay Code.

The effect of this change will make urban development inconsistent with the zone and in doing so discourage urban uses from establishing in this area.

6.2 Clermont

The affected areas are proposed to be included within the Limited development zone (see **Map 10 of Attachment 1**).

The purpose of the Limited development zone is stated in the proposed planning scheme as:

6.2.6.3.2 Purpose

(1) The purpose of the limited development zone is to identify land that is significantly affected by 1 or more development constraints, including, for example, constraints relating to defence requirements, flooding, historical subdivisions, land contamination, past or future mining activities or topography.

The purpose of the limited development zone code is to limit the scale and form of development in those areas affected by significant development constraints through the following natural hazards:

- (a) significant localised flooding within parts of the Clermont and Nebo area; and
- (b) coastal hazards at Clairview and Carmila Beach.

Development must not create any unacceptable risks from natural hazards to people and property.

- (2) The purpose of the zone will be achieved through the following overall outcomes:
 - (a) development constraints limit the number and type of land uses that can occur due to natural hazards that are of high or extreme risk to people and property;
 - (b) new uses and works reflect a low intensity nature, are provided with an appropriate level of infrastructure and access and are designed appropriately given the constraints of the land;
 - (c) low impact outdoor recreation activities are possible within the zone where compatible with the land constraints and the amenity of surrounding urban areas.

The effect of this change will make urban development inconsistent with the zone and in doing so discourage urban uses from establishing in this area. The level of assessment proposed for a 'dwelling house' in this zone is proposed to be Impact assessable development, a change from the existing arrangements in which' Houses' are exempt development.

7.0 Consistency of proposed planning scheme approach with the requirements of the State Planning Policy July 2017

The State Planning Policy July 2017, includes a state interest – Natural Hazards Risk and Resilience. This state interest seeks to ensure that:

The risks associated with natural hazards, including the projected impacts of climate change, are avoided or mitigated to protect people and property and enhance the community's resilience to natural hazards.

The State Planning Policy requires that:

- (4) Development in bushfire, flood, landslide, storm tide inundation or erosion prone natural hazard areas:
 - (a) avoids the natural hazard area; or
 - (b) where it is not possible to avoid the natural hazard area, development mitigates the risks to people and property to an acceptable or tolerable level.

The approach taken by the proposed planning scheme of avoiding the establishment of urban uses in these areas aligns with the State Planning Policy Section 4 (a) of avoiding the natural hazard areas.

8.0 Alternatives considered to the proposed planning changes

8.1 Carmila West Road

In mitigating the risk of flooding in these areas, structural solutions such as the construction of a flood levee were not considered to be feasible for two primary reasons. These reasons are:

- 1. The limited growth of Carmila can be accommodated within areas free of these flood hazards, for example areas south of Carmila West Road and west of the Bruce Highway.
- 2. The construction of a physical levee would be at significant financial cost to the ratepayers of the region. These costs would be associated with the required significant technical investigations, land resumption, construction and maintenance. Given these areas are not required for future expansion of Carmila the cost benefit of such a significant investment would be unlikely to be justifiable.

Other alternatives such as retaining these areas in a Village designation, (continuing the planning arrangements in place under the Broadsound Planning Scheme) and mitigating risks to urban development as part of development assessment were not considered to be feasible for two primary reasons. These reasons are:

 As stated above, these areas are not required to accommodate the growth of Carmila. Sufficient urban land exists in areas free of flood hazard. Encouraging the establishment of new urban developments in areas where flooding risks are present is not consistent with the State Planning Policy (see section & above) and is unnecessary to accommodate the town's anticipated growth. 2. An urban zone should only be applied to land where Council has a reasonable expectation that urban uses can be adequately established and sustained on the land. It is likely that site based assessments would confirm the extent of flood risks on these areas is such that urban uses can't adequately be established on these lands. Planning scheme zonings that enable applicants to lodge development applications for urban uses on land, subject to costly site based assessments of the flood risks, creates an expectation in applicants that may not be able to be realistically achieve and is considered to be misleading as to the realistically achievable potential use of these areas. Given the flood hazard in these areas, the planning scheme zoning for these lands should reflect the intended land uses consistent with the flooding characteristics of the land. Inclusion in a rural zone is considered to be appropriate given it is consistent with existing land uses occurring on the land.

8.2 Clermont

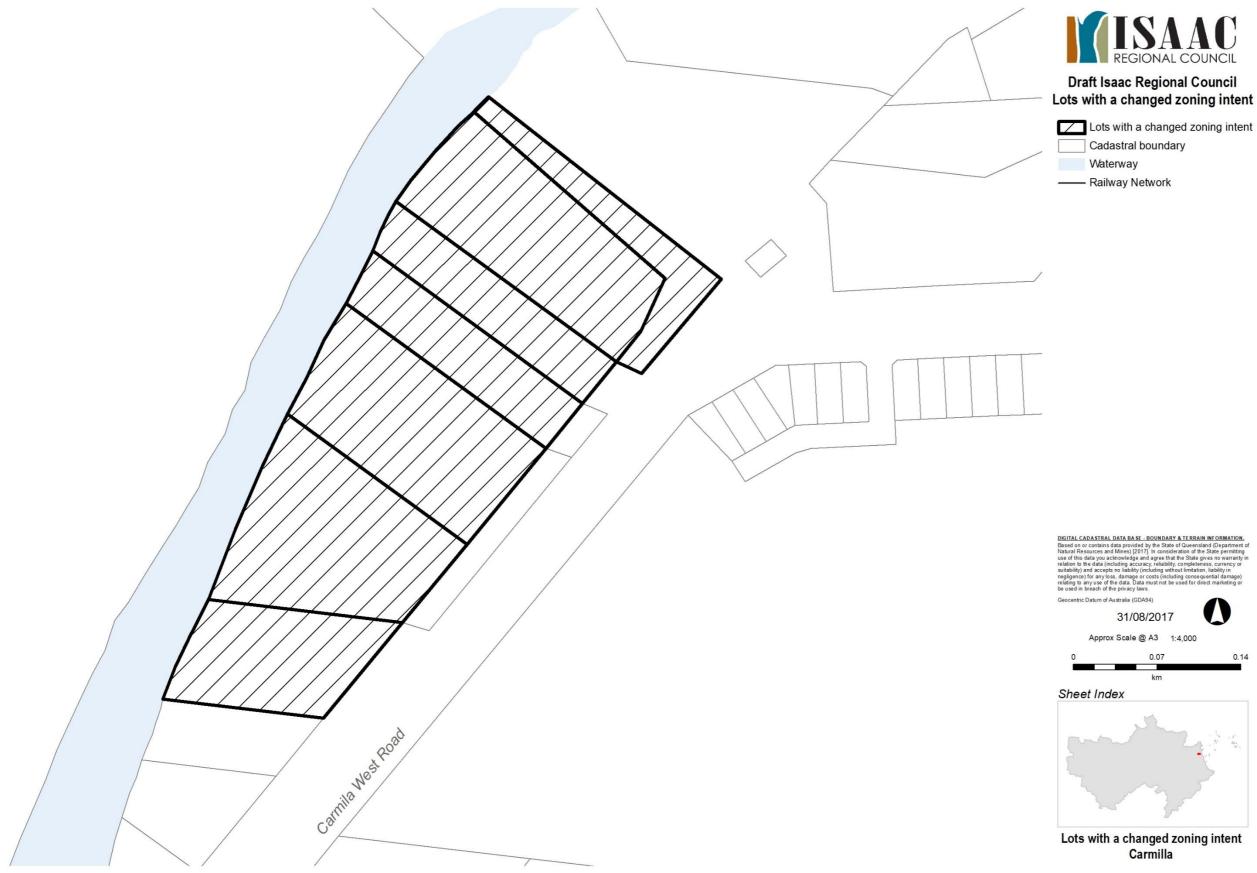
In mitigating the risk of flooding in these areas, structural solutions such as the construction of a flood levee were not considered to be feasible for two primary reasons. These reasons are:

- The growth of Clermont can be accommodated within areas free of these flood hazards, for example the area of Emerging Community zoned land at Jeffrey Street Clermont, where residential expansion is intended, is free of flood hazards, and the industrial zoned areas north of Clermont on the Clermont Connection Road and Gregory Highway have sufficient flood free land capable of supporting expansion of industrial activities.
- 2. The construction of a physical levee would be at significant financial cost to the ratepayers of the region. These costs would be associated with the required significant technical investigations, land resumption, construction and maintenance. Given these areas are not required for future expansion of Clermont the cost benefit of such a significant investment would be unlikely to be justifiable.

Other alternatives such as retaining these areas in an urban zone, (continuing the planning arrangements in place under the Belyando Planning Scheme) and mitigating risks to urban development as part of development assessment were not considered to be feasible for two primary reasons. These reasons are:

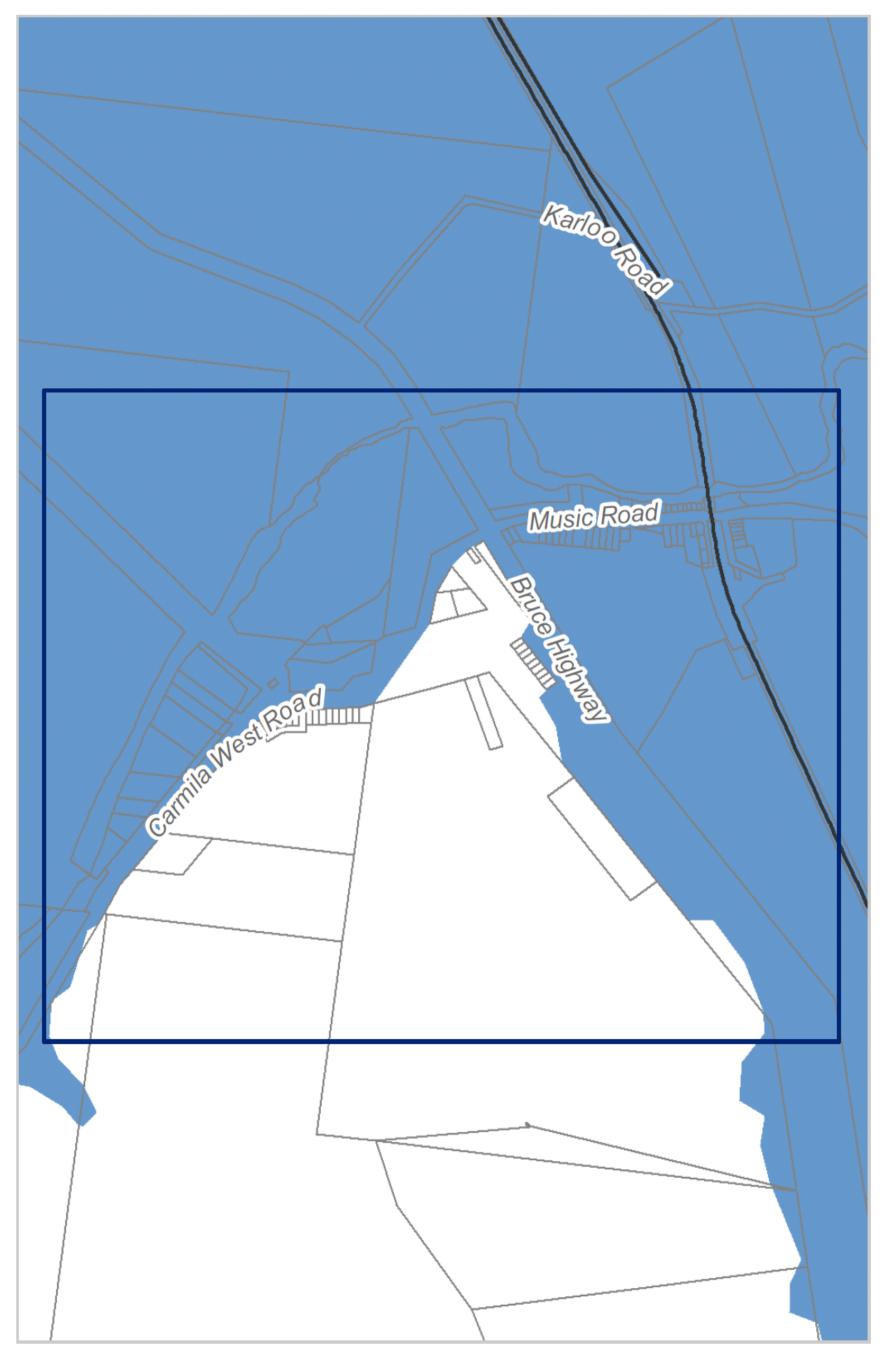
- As stated above, these areas are not required to accommodate the growth of Clermont. Sufficient urban land exists in areas free of flood hazard. Encouraging the establishment of new urban developments in areas where flooding risks are present is not consistent with the State Planning Policy (see section & above) and is unnecessary to accommodate the town's anticipated growth.
- 2. An urban zone should only be applied to land where Council has a reasonable expectation that urban uses can be adequately established and sustained on the land. It is likely that site based assessments would confirm the extent of flood risks on these areas is such that urban uses can't adequately be established on these lands. Planning scheme zonings that enable applicants to lodge development applications for urban uses on land, subject to costly site based assessments of the flood risks, creates an expectation in applicants that may not be able to be realistically achieve and is considered to be misleading as to the realistically achievable potential use of these areas. Given the flood hazard in these areas, the planning scheme zoning for these lands should reflect the intended land uses consistent with the flooding characteristics of the land. Inclusion in a rural zone is not considered to be appropriate given the small size of these areas.

Appendix A. Maps



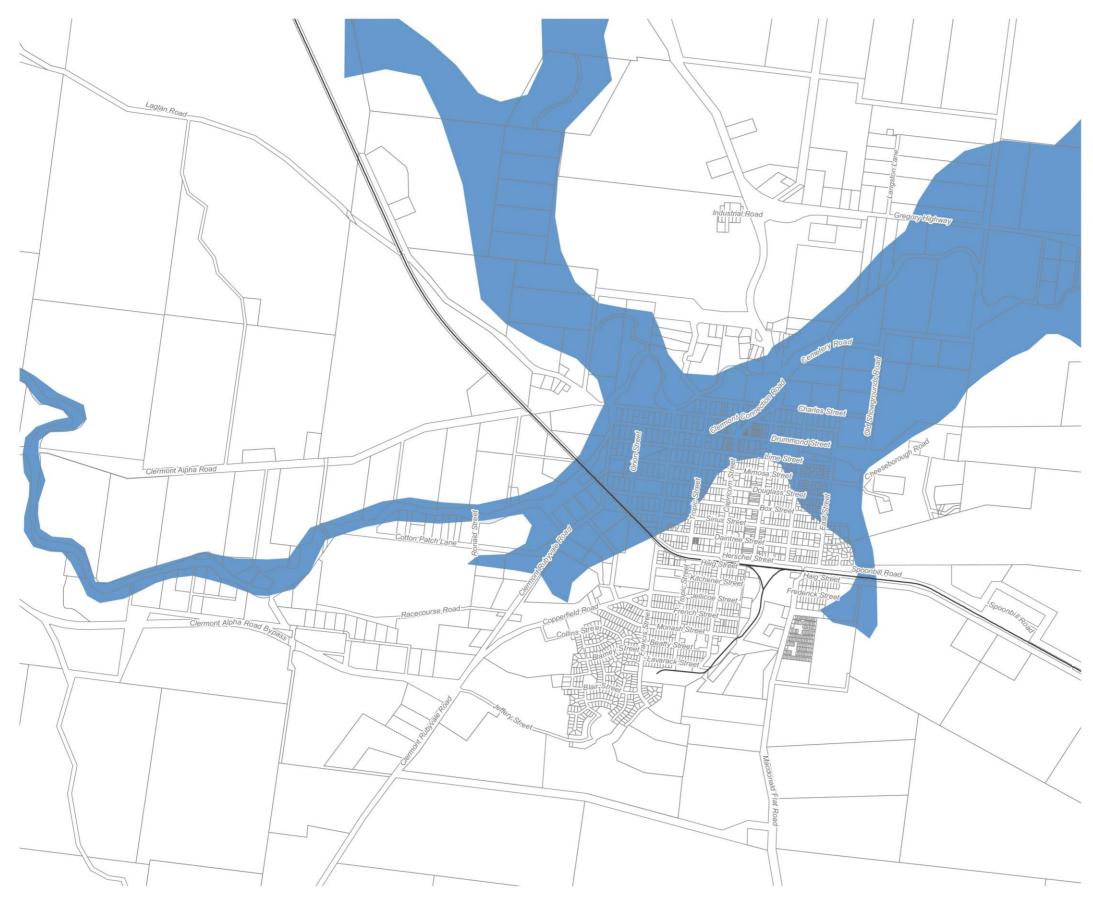
Map 2: Clermont Locality





Map 3: Camila, Isaac Regional Council Proposed Planning Scheme (Flood Hazard Overlay)

Map 4: Clermont, Isaac Regional Council Proposed Planning Scheme (Flood Hazard Overlay)





Draft Isaac Regional Council Flood Hazard Overlay Map Clermont

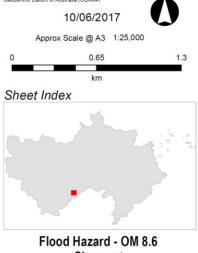
Potential flood hazard area
Flood extent modified through local
verification
Cadastral boundary
Local Government Boundary
Waterway

----- Railway Network

Note: Where overlays do not appear on the map, the overlay does not apply within the area.

DIGITAL CADASTRAL DATA BASE - BOUNDARY & TERRAIN INFORMATION. Based on or contains data provided by the State of Queensland (Department of Natural Resources and Mines) [2017]. In consideration of the State permitting use of this data including accuracy, reliability, completeness, currency or reliability to the data including accuracy, reliability, completeness, currency or registerio the total including accuracy, reliability, completeness, currency or registerio the total, data may and the state state state and the state registeric to the state state accuracy or reliability of the state state state accuracy reliability to the state accuracy accuracy accuracy or the state state state accuracy accuracy reliability to any loss, damage or costs (including consequential dam age) reliability to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws.

Note: Overlay of the privecy tama: Note: Overlay boundary refined and through a local verification review. Based on Queensland Reconstruction Authority - Floodplain Assessment Overlay as as 7/10/2013 (locally verified and molified). Geocentric Datum of Australia (GDA94)



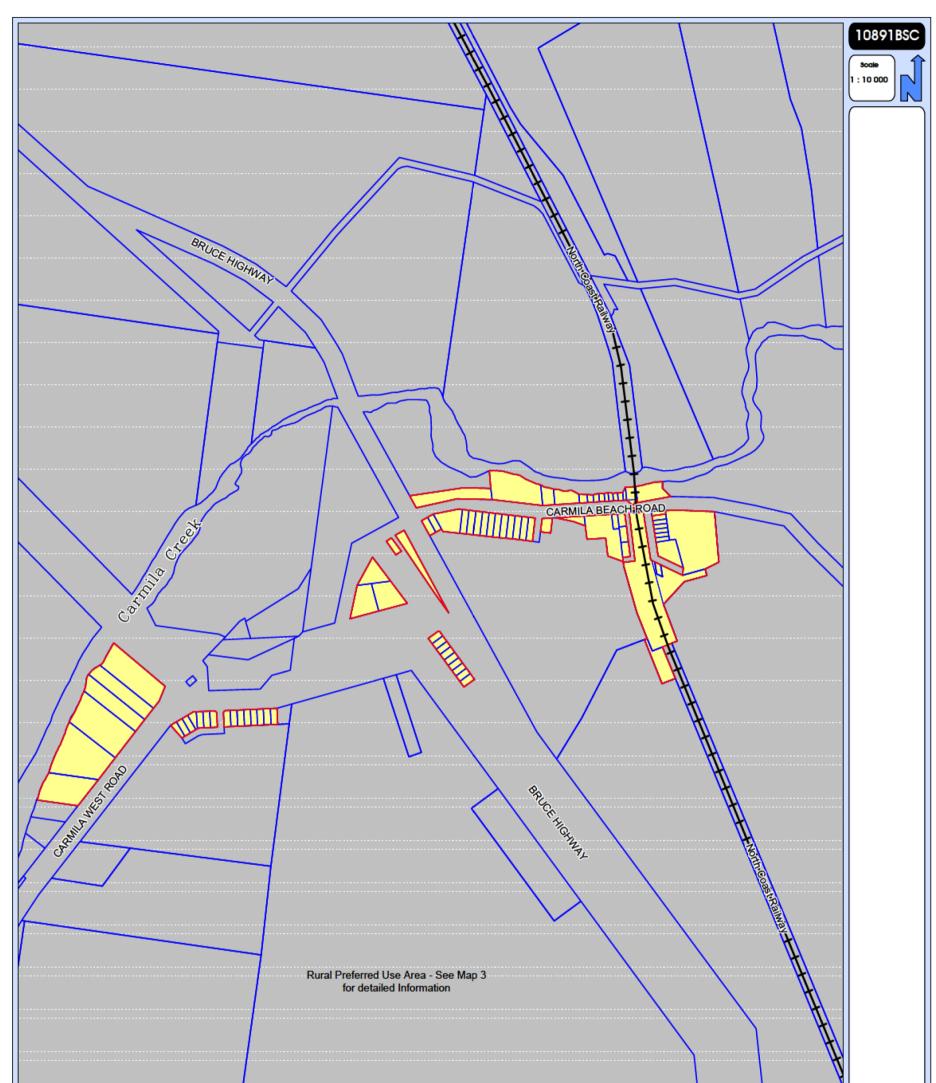
Clermont

Map 5: Camila Land Use

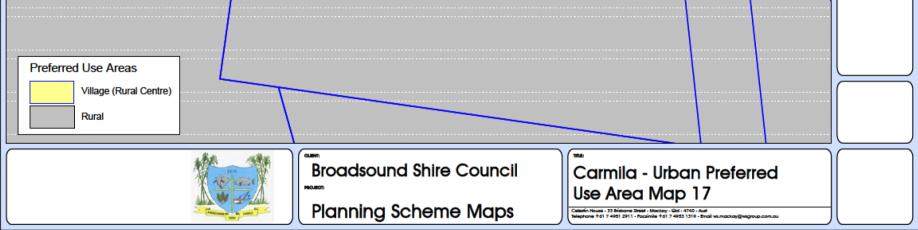


Map 6: Clermont Land Use



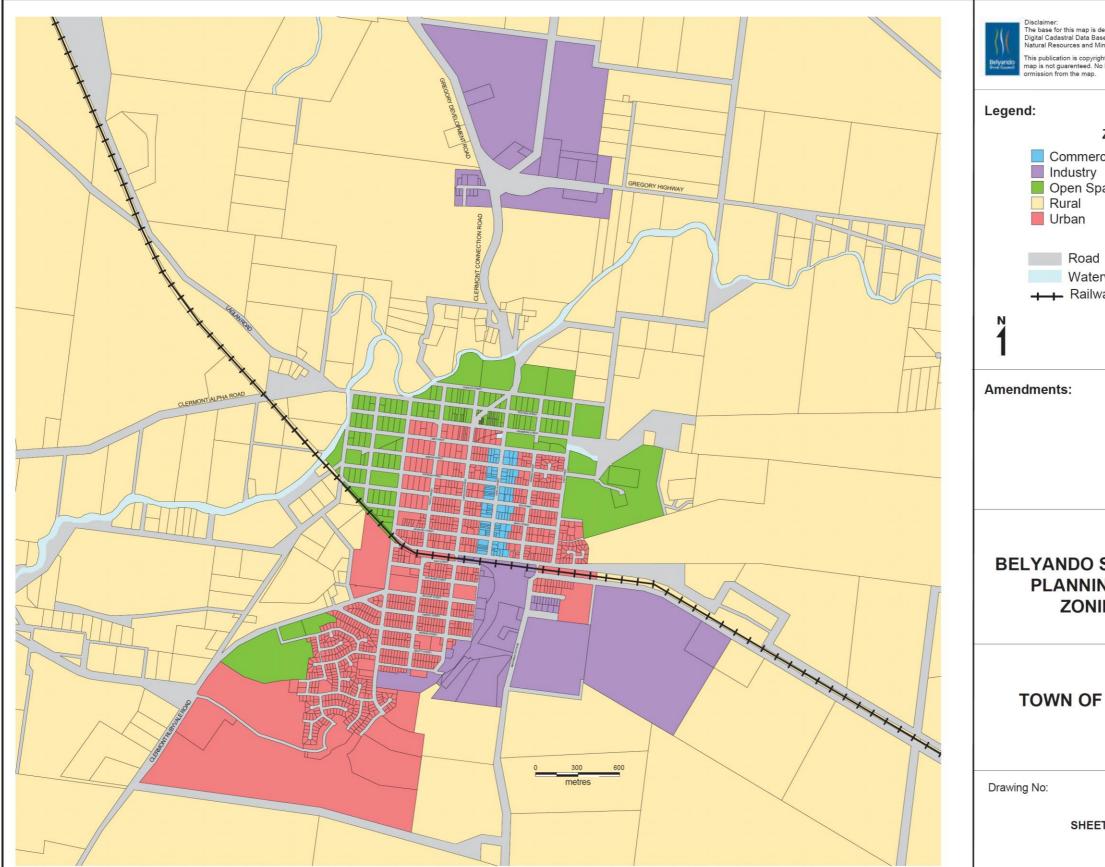


Map 7: Camila, Existing Broadsound Shire Council Planning Scheme



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This planning scheme, the Broadsound Plan, took effect 30th September 2005

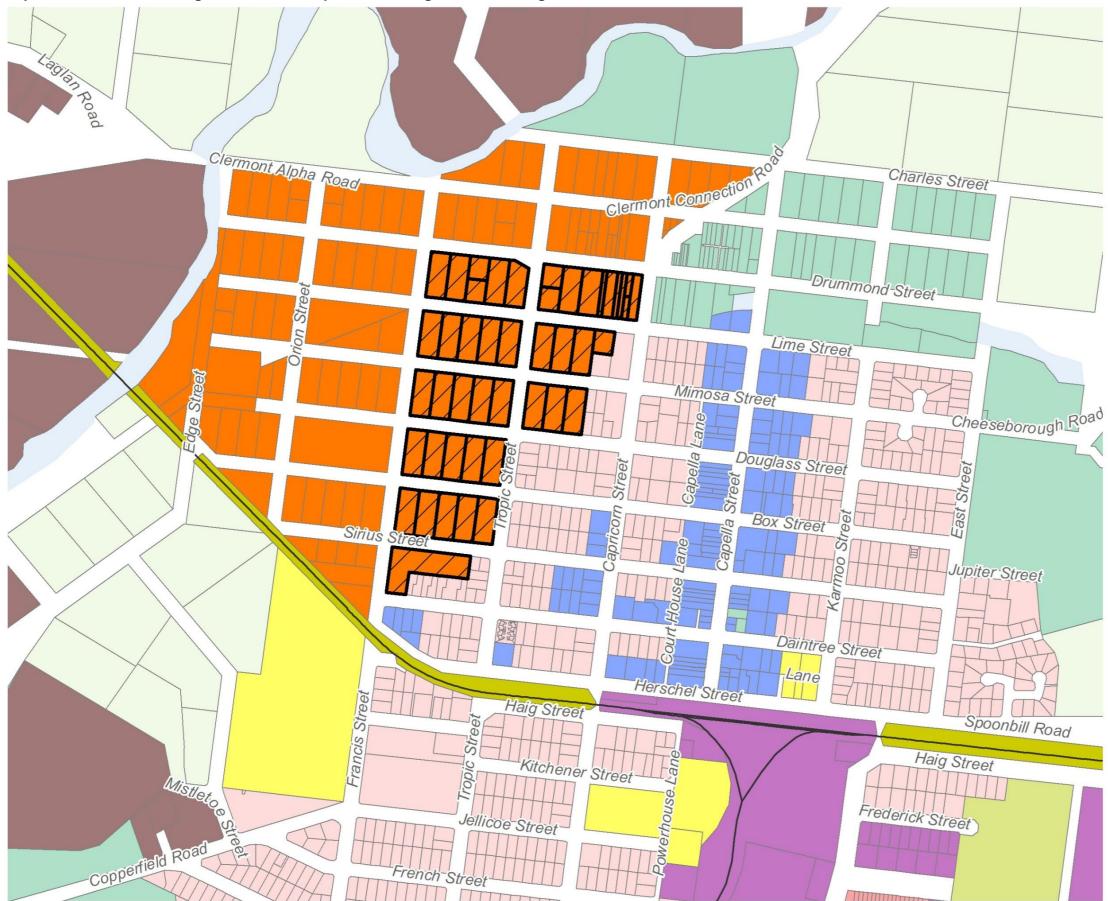


Map 8: Clermont, Existing Belyando Shire Council Planning Scheme

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Zoning rcial bace and Recreation
l rway vay
SHIRE COUNCIL NG SCHEME ING MAP
CLERMONT
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Map 9: Clermont, Isaac Regional Council Proposed Planning Scheme Zoning





Map 10: Clermont, Isaac Regional Council Proposed Planning Scheme Zoning



Draft Isaac Regional Council Lots with a changed zoning intent



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Lots with a changed zoning intent Clermont

Appendix B. List of affected properties

LOT	PLAN	LOTPLAN	LOCALITY
A	AP2050	AAP2050	Carmila
41	MC208	41MC208	Carmila
42	MC214	42MC214	Carmila
52	MC214	52MC214	Carmila
43	MC208	43MC208	Carmila
44	MC208	44MC208	Carmila
6	MC511	6MC511	Carmila
1	RP602061	1RP602061	Clermont
1	RP603627	1RP603627	Clermont
3	RP603627	3RP603627	Clermont
1	RP603628	1RP603628	Clermont
1	RP619295	1RP619295	Clermont
1	RP619358	1RP619358	Clermont
1	RP618888	1RP618888	Clermont
124	CLM603	124CLM603	Clermont
124	CLM603	124CLM603	Clermont
125	CLM603	126CLM603	Clermont
120	CLM603	120CLIVI003	Clermont
127	CLM603	127CLIVI003	Clermont
138	CLM603	138CLM603	Clermont
130	CLM603	139CLM603	Clermont
139 140	CLM603	140CLM603	
140			Clermont
	CLM603	141CLM603	Clermont
142 2	CLM603	142CLM603	Clermont
2	RP602061	2RP602061	Clermont
2	RP603628	2RP603628	Clermont
2	RP619295	2RP619295	Clermont
20	CLM602	20CLM602	Clermont
21	CLM602	21CLM602	Clermont
23	CLM602	23CLM602	Clermont
24	RP806557	24RP806557	Clermont
26	CLM602	26CLM602	Clermont
27	CLM602	27CLM602	Clermont
3	RP602061	3RP602061	Clermont
37	CLM602	37CLM602	Clermont
38	CLM602	38CLM602	Clermont
39	CLM602	39CLM602	Clermont
40	CLM602	40CLM602	Clermont
41	CLM602	41CLM602	Clermont
42	CLM602	42CLM602	Clermont
43	CLM602	43CLM602	Clermont
44	CLM602	44CLM602	Clermont
53	USL43663	53USL43663	Clermont
58	CLM602	58CLM602	Clermont
3	RP607548	3RP607548	Clermont
54	CLM602	54CLM602	Clermont
55	CLM602	55CLM602	Clermont
56	CLM602	56CLM602	Clermont
57	CLM602	57CLM602	Clermont
60	CLM602	60CLM602	Clermont
59	CLM602	59CLM602	Clermont
9	RP616047	9RP616047	Clermont

ZONE Rural Rural Rural Rural Rural Rural Rural Limited development ADDRESS (Lot A) Carmila West Road, Carmila 12 Carmila West Road, Carmila 14 Carmila West Road, Carmila 16 Carmila West Road, Carmila 18 Carmila West Road, Carmila 20 Carmila West Road, Carmila 22 Carmila West Road, Carmila (Lot 1) Drummond Street, Clermont (Lot 1) Lime Street, Clermont (Lot 124) Box Street, Clermont (Lot 125) Box Street, Clermont (Lot 126) Box Street, Clermont (Lot 127) Box Street, Clermont (Lot 128) Box Street, Clermont (Lot 138) Sirius Street, Clermont (Lot 139) Sirius Street, Clermont (Lot 140) Sirius Street, Clermont (Lot 141) Sirius Street, Clermont (Lot 142) Sirius Street, Clermont (Lot 2) Drummond Street, Clermont (Lot 2) Drummond Street, Clermont (Lot 2) Drummond Street, Clermont (Lot 20) Drummond Street, Clermont (Lot 21) Drummond Street, Clermont (Lot 23) Drummond Street, Clermont (Lot 24) Drummond Street, Clermont (Lot 26) Drummond Street, Clermont (Lot 27) Drummond Street, Clermont (Lot 3) Drummond Street, Clermont (Lot 37) Tropic Street, Clermont (Lot 38) Tropic Street, Clermont (Lot 39) Tropic Street, Clermont (Lot 40) Tropic Street, Clermont (Lot 41) Tropic Street, Clermont (Lot 42) Tropic Street, Clermont (Lot 43) Lime Street, Clermont (Lot 44) Lime Street, Clermont (Lot 53) Lime Street, Clermont (Lot 58) Tropic Street, Clermont 66 Mimosa Street, Clermont 69 Mimosa Street, Clermont 69 Mimosa Street, Clermont 69 Mimosa Street, Clermont 69 Mimosa Street, Clermont 70 Mimosa Street, Clermont 74 Mimosa Street, Clermont 75 Sirius Street, Clermont