

## 11.1.7 FLOOD HAZARD AREA DESIGNATION FOR THE PURPOSES OF IMPLEMENTING THE NATIONAL CONSTRUCTION CODE

**Date:** 24 June 2021  
**Author:** Chris Welch, Director Council Services  
**File No:**  
**Letter No:**  
**Attachment:** 1 – 2019 Floodplain Resolution (ID#1635110, OM004566)  
2 – Baralaba-Dawson River (ID#1518166)  
3 – Biloela-Callide Creek (ID#1518170)  
4 – Dululu Wowan-Dee River (ID#1518172)  
5 – Goovigen Jambin-Callide Creek (ID#1518179)  
6 – Moura-Dawson River (ID#1518180)  
7 – Taroom-Dawson River (ID#1518182)  
8 – Thangool-Kariboe Creek (ID#1518183)  
9 – Table – Minimum Heights for Flooding (ID#1634917)  
**Minute No:** OM005035

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### **Resolution:**

***That Council resolve under Section 13 of the Building Regulation 2006 to:***

- A. Designate those parts of Banana Shire identified by the Banana Shire Flood Assessment as affected in the modelled 1% Annual Exceedance Probability (AEP) plus allowance for climate change as a flood hazard area.***
- B. Declare a defined flood level equivalent to the 1%AEP plus allowance for climate change for all properties identified on the Flood Study Defined Event Maps (Attachments 2 – 8).***
- C. Declare maximum flow velocity of water for:***
  - (a) Baralaba – 0.75m/sec***
  - (b) Biloela – 3.05m/sec***
  - (c) Dululu – 10.58m/sec***
  - (d) Jambin – 1.57m/sec***
  - (e) Taroom – 2.43m/sec***
  - (f) Thangool – 0.80m/sec***
  - (g) Theodore – 4.11m/sec***
  - (h) Wowan – 11.56m/sec***
- D. For the purposes of Section 13(1)(b)(iv) and (v), declare freeboards and finished floor levels for all building classes in the flood hazard area as per the Table – Minimum Heights for Flooding (Attachment 9).***

***Moved: Cr Pender***

***Seconded: Cr Leo***

***Carried***

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### **Report**

In December 2019, Council resolved to adopt a new Floodplain Resolution (Attachment 1) to address the design and construction in flood hazard areas as the then Banana Shire and Taroom Shire Planning Schemes did not include any provisions for this purpose. The National Construction Code

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provides some measures in this regard but relies on being called up for building applications in a designated flood hazard area. The new planning scheme identifies a flood hazard area and identifies that minimum heights for development are to be in accordance with Council's adopted Floodplain Resolution.

The 2019 Floodplain resolution adopts appropriate standards for the declaration of the flood hazard area, defined flood event and maximum flow velocities for floodwater as per the Hydrological Assessment Report prepared as part of Stage 2 of the Dawson River Flood Study. It is recommended that these standards be retained as part of this latest resolution.

The issue of freeboards and minimum floor levels has been the subject of some consternation given the restrictions that the current Floodplain resolution imposes, i.e.:

- (a) habitable floor levels - 500mm;
- (b) non-habitable floor levels - 300mm;
- (c) on-site sewage treatment, services infrastructure (including electricity, gas, water supply, sewerage and telecommunications) and storage areas for potential contaminants - 300mm;
- (d) all other development - 0mm;

These heights have been criticised for being overly conservative and unrealistic in areas of established urban development. Officers have reviewed the minimum requirements for flood-affected development in the National Construction Code, Building Code of Australia and the Queensland Development Code. As a result, a table has been developed to address aspects of building works for:

- (a) habitable floor levels;
- (b) non-habitable floor levels;
- (c) plumbing fixture levels;
- (d) on-site wastewater irrigation area levels;
- (e) electrical fitting levels; and
- (f) levels of storage areas for hazardous materials;

This table applies minimum levels based on:

- (a) the defined flood event;
- (b) ground levels; or
- (c) the 10% Annual Exceedance Probability flood level;

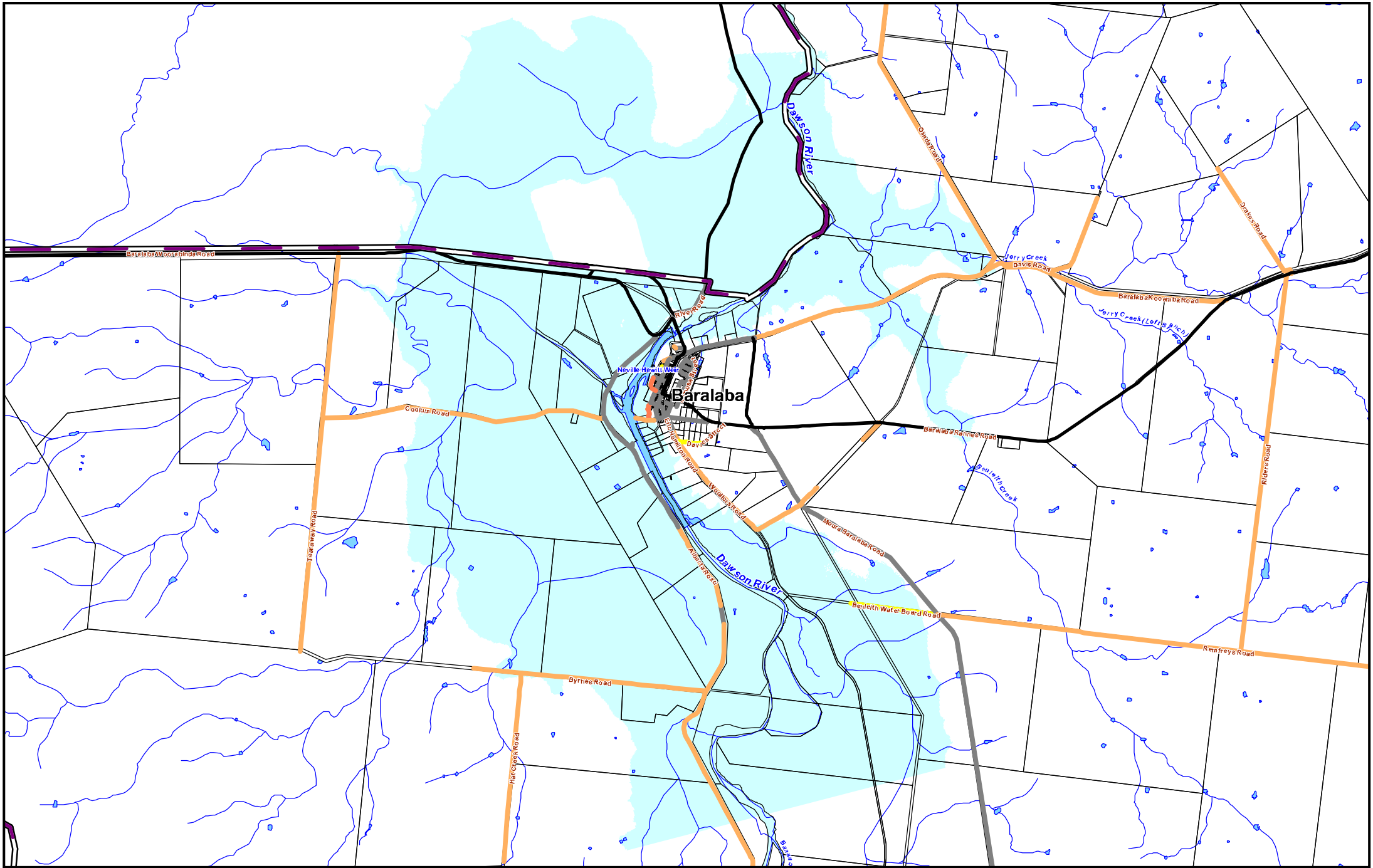
These levels are set by the level of risk to both the development and the surrounding environment and align with the minimum standards of the national and State codes. For the purposes of interpreting the table, the following descriptions are provided for all building classes.


- Classes 1 – 4 – dwellings either as stand-alone building, grouped dwellings in a single building or a dwelling in another building class
- Classes 5 – 6 – offices, shops and the like
- Class 7a – car park buildings
- Class 7b – wholesale buildings
- Class 8 – laboratories and industrial buildings
- Class 9 – health care buildings, 'assembly' buildings (schools, churches, etc)
- Class 10 – non-habitable buildings

Refer Attachment 9 for Minimum Heights for Flooding.

**Recommendation**

That Council retain the adopted flood hazard area, defined flood level and a maximum flow velocities from the 2019 Floodplain Resolution and adopt new freeboards and minimum floor levels for all building classes in the flood hazard area in accordance with the Table – Minimum Heights for Flooding.

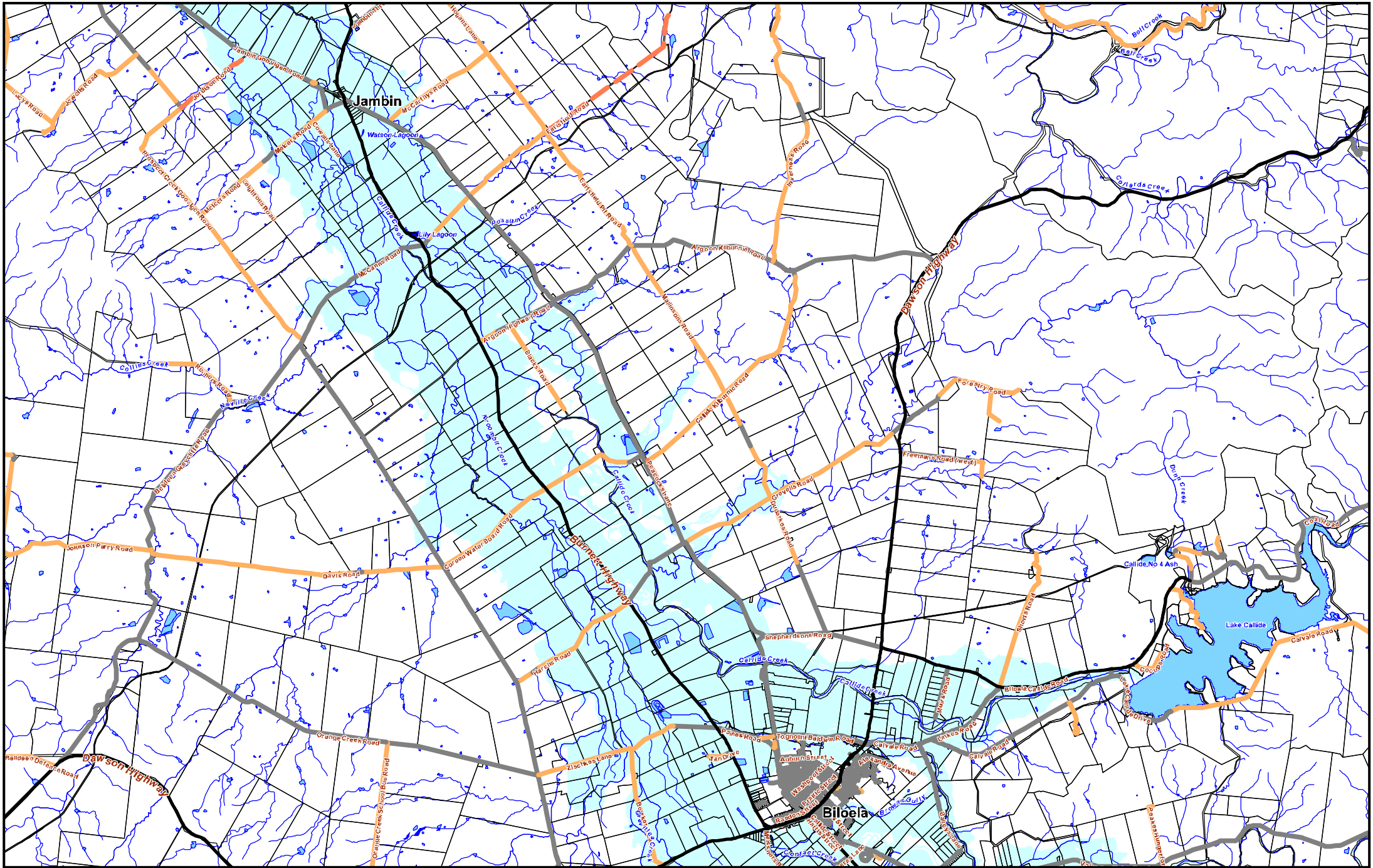




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**BANANA SHIRE**  
**BARALABA - DAWSON RIVER**  
**FLOOD STUDY DEFINED EVENT**  
**100YR PLUS CLIMATE CHANGE**

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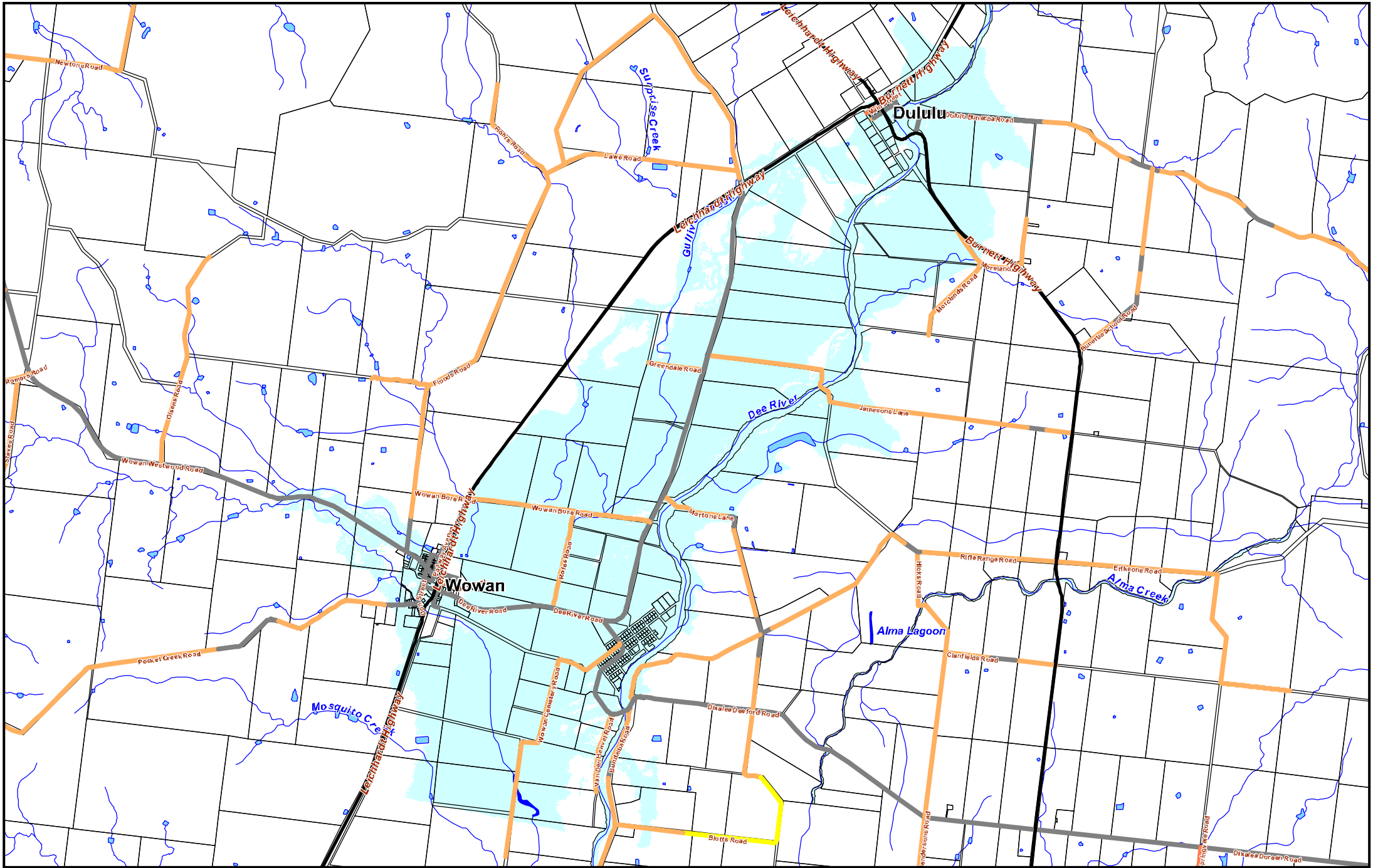

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**BANANA SHIRE**  
**BILOELA - CALLIDE CREEK**  
**FLOOD STUDY DEFINED EVENT**  
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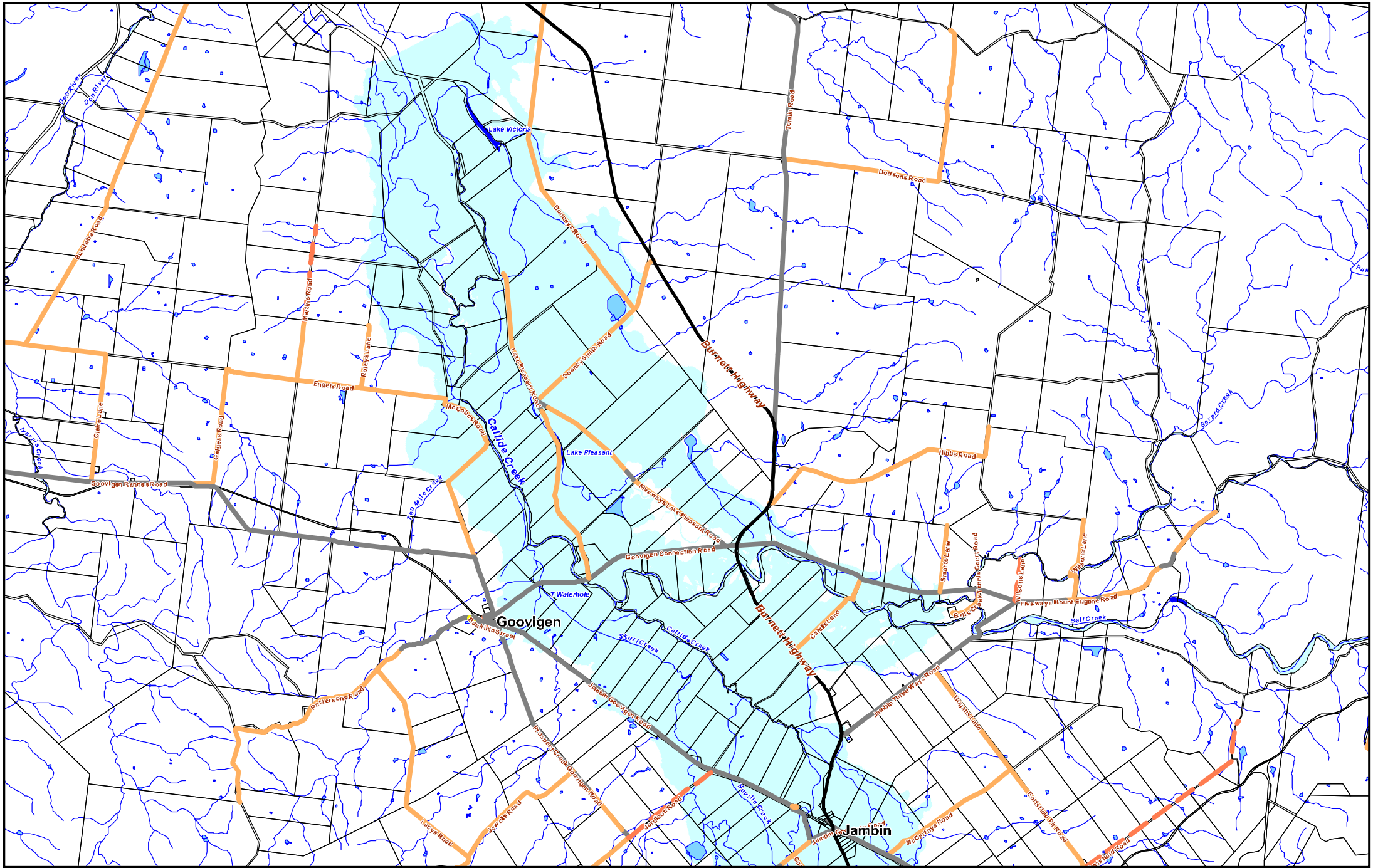



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**BANANA SHIRE**  
**DULULU WOWAN - DEE RIVER**  
**FLOOD STUDY DEFINED EVENT**  
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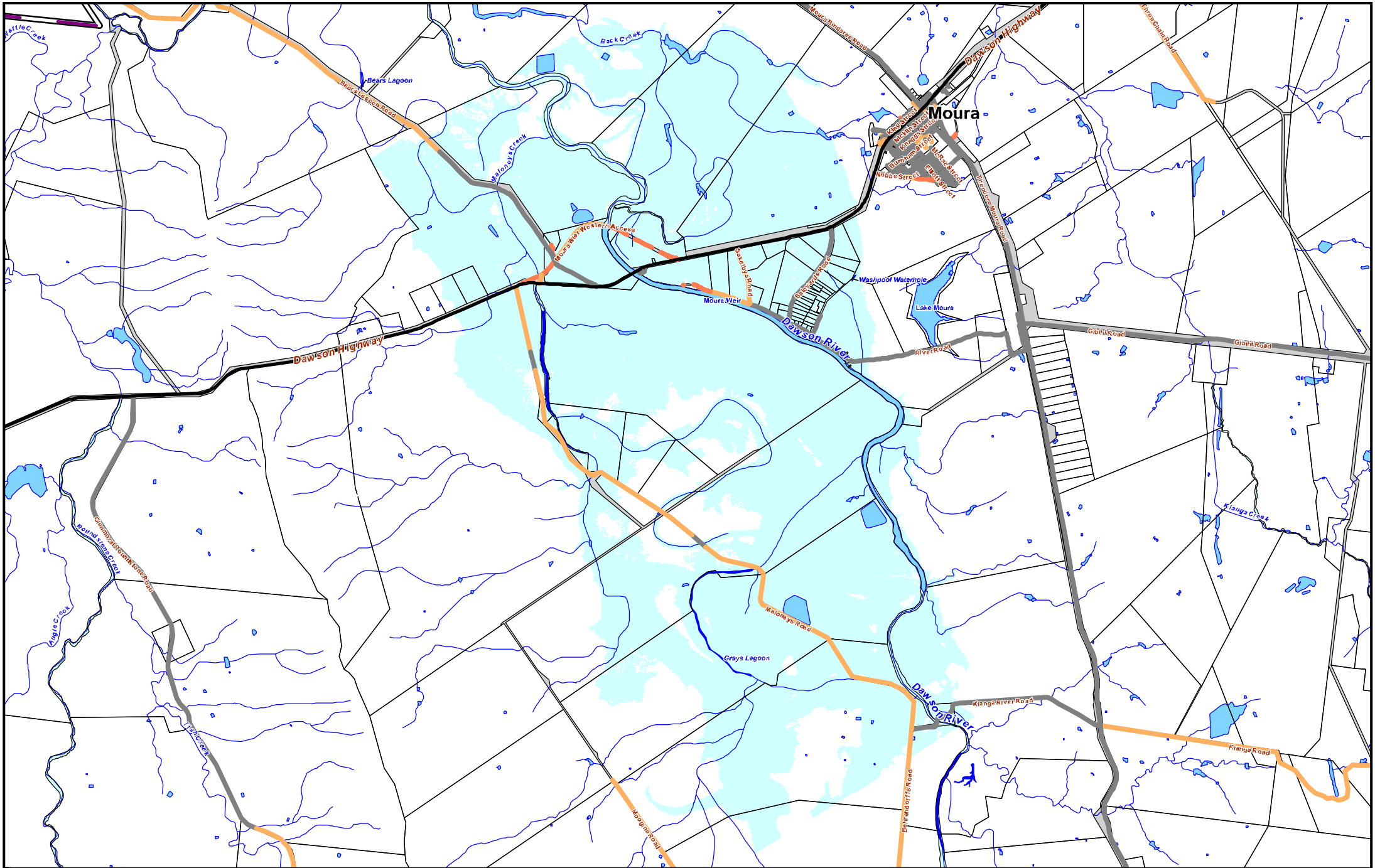
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**BANANA SHIRE**  
**GOOVIGEN JAMBIN - CALLIDE CREEK**  
**FLOOD STUDY DEFINED EVENT**  
**100YR PLUS CLIMATE CHANGE**

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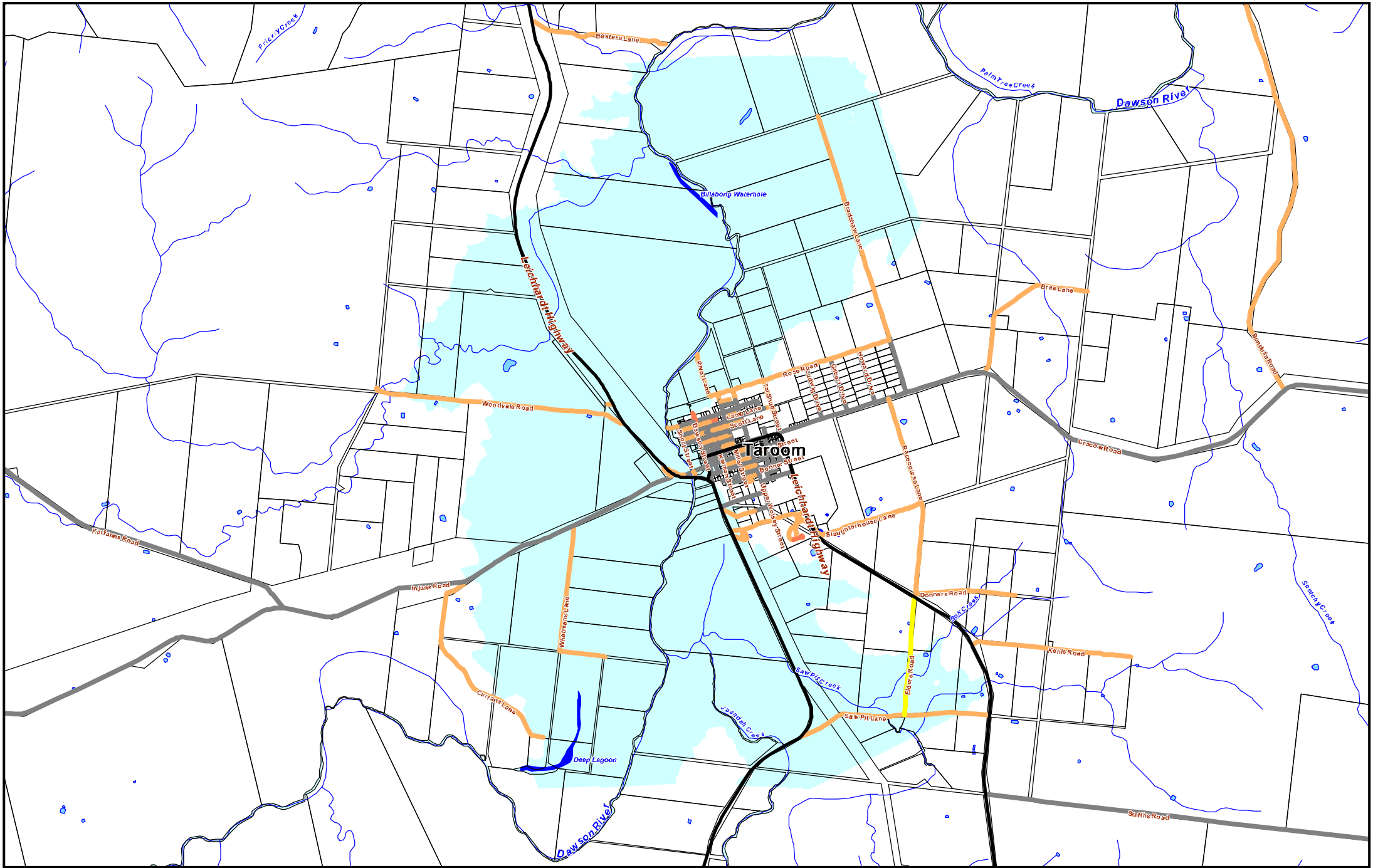

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**BANANA SHIRE**  
**MOURA - DAWSON RIVER**  
**FLOOD STUDY DEFINED EVENT**  
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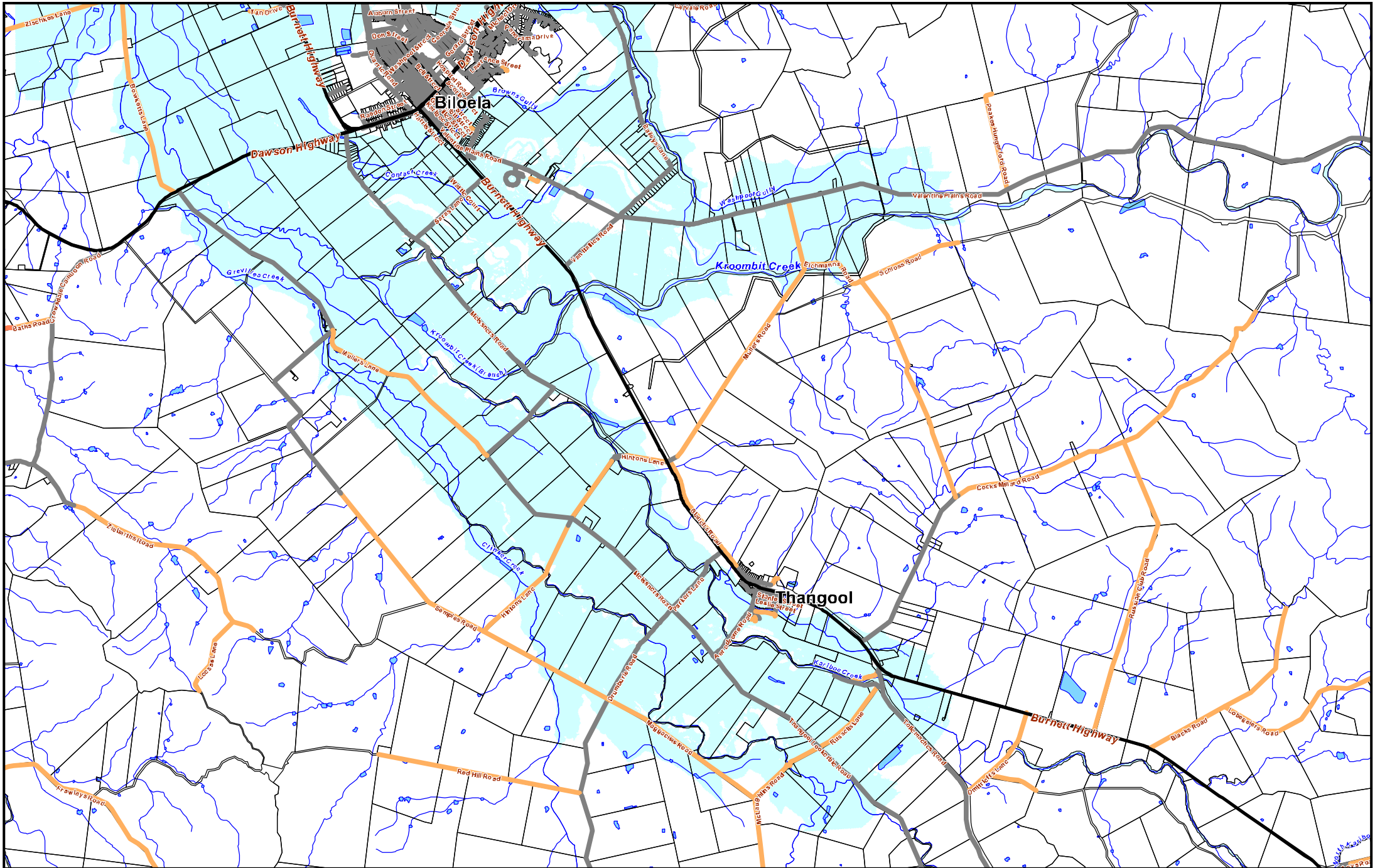
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**BANANA SHIRE  
 TAROOM - DAWSON RIVER  
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**BANANA SHIRE**  
**THANGOOL - KARIBOE/GREVILLEA CREEKS**  
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Building class	Minimum habitable floor level	Minimum non-habitable floor level	Minimum plumbing fixture level	Minimum level of on-site wastewater irrigation area	Minimum height of electrical fittings	Minimum level for storage of hazardous materials
Classes 1-4	DFE + 300mm	Ground level + 300mm	DFE + 150mm	10%AEP flood level + 100mm	DFE + 150mm unless waterproofed	N/A
Classes 5-6	DFE – 1m or Ground level + 300mm, whichever is the lower		DFE + 150mm unless fitted with a reflux valve			DFE
Class 7a	N/A	Ground level	N/A	N/A	N/A	N/A
Class 7b	Ground level + 300mm		DFE + 150mm unless fitted with a reflux valve	10%AEP flood level + 100mm	DFE + 150mm unless waterproofed	DFE
Class 8	DFE – 1m or Ground level + 300mm, whichever is the lower					
Class 9	DFE + 300mm or Ground level + 300mm with an approved EMP	Ground level + 300mm				
Class 10	No floor height requirement			N/A		

Explanatory notes

Hazardous materials means a hazardous contaminant that is likely to cause material environmental harm because of its characteristics, quantity or chemical reaction when exposed to or transported by flood water.

DFE is the defined flood event identified in the Banana Shire Planning Scheme 2021

Ground level is the definition provided in the *Planning Regulation 2017*

EMP is an Emergency Management Plan assessed against the Flood Planning Scheme Policy and approved by Banana Shire Council.