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10 October 2025
Tiswatitis Pty Ltd
c/o Perception Planning
PO Box 107
Clarence Town NSW 2321

Attn: Renee Neely

Dear Renee

RE: FLOOD IMPACT AND RISK ASSESSMENT FOR PROPOSED DEVELOPMENT AT 20 DUNMORE ROAD, LARGS NSW

Background

Torrent Consulting was engaged to undertake a Flood Assessment to assist in the DA process for the proposed development at 20 Dunmore Road, Largs, NSW (the Site). It is understood that a flood report is required by Maitland Council, as per the requirements of the Maitland LEP and DCP. The development includes the construction of 17 two-storey dwellings.

The Site is located on the hillslopes of a small catchment that drains to the east into the Paterson River, as shown in Figure 1. The topography of the local catchment is shown in Figure 2. The main gully line draining the local catchment east to Dunmore Road is located just north of the Site and has a contributing catchment area of around 33.5 ha. It drains to a detention pond upstream of the cross-drainage structures under Dunmore Road. Around a 4.3 ha sub-catchment is drained via a 600 mm stormwater pipe located beneath a minor gully line that traverses the western part of the Site.

Assessment

The Maitland LEP 2011 Part 5.21 Flood Planning requires that:

Development consent must not be granted to development on land the consent authority considers to be within the flood planning area unless the consent authority is satisfied the development—

(a) is compatible with the flood function and behaviour on the land, and

(b) will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and

(c) will not adversely affect the safe occupation and efficient evacuation of people or exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and

(d) incorporates appropriate measures to manage risk to life in the event of a flood, and

(e) will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.

In ensuring that proposed development achieves these requirements, the Maitland DCP 2011 Part B.3 provides more specific requirements for the management of flood risk within the Hunter River floodplain. The applicable development controls are addressed herein.

Development Below the Flood Planning Level (FPL)

The proposed development is located above the FPL and so these controls are not applicable. The FPL from Hunter River flood events is around 7.4 m AHD, with the entire Site being located above this level. There is not detailed flood modelling available for the local catchment. However, it can readily be determined that the proposed development will satisfy any FPL requirement in relation to local catchment flooding.

The principal hydraulic control for local catchment flooding is the spillway for the small detention pond located to the north of the Site. From the LiDAR survey data this is elevated at 8.3-8.4 m AHD. There are outlet structures but in a 1% AEP event it is expected that the spillway would be overtopped. Given the small catchment area, it is not expected that the spillway would overtop to a depth greater than in the order of 300 mm, which would place a reasonable estimate of a 1% AEP flood level at around 8.7 m AHD, providing for an FPL of 9.2 m AHD.

Apart from the minor gully line that traverses the Site, the minimum existing surface levels are above 9.2 m AHD. Following the proposed regrading of the Site to accommodate the development, the finished floor levels are all at or above 10.7 m AHD, which is substantially higher than the expected range of the potential 1% AEP flood level.

The local gully line traversing the western part of the Site has a tiny contributing catchment. Runoff from this catchment can be readily managed through appropriate stormwater design, including a dedicated escape flow path for any runoff exceeding the capacity of the stormwater drainage pipe. This local catchment scale is such that flood planning controls are not warranted.

Development in Floodways

The Site is not identified as being within a Floodway and so this set of planning controls is not applicable. As discussed previously, an appropriate overland escape for local catchment stormwater runoff exceeding the sub-surface drainage capacity should be accommodated in the civil design.

Filling of Flood Storage and Flood Fringe Areas

There will be minor filling of the local gully traversing the western part of the Site to facilitate the proposed development. However, this does not represent any significant loss of floodplain storage that needs to be accounted for. Nevertheless, an appropriate overland escape for local catchment stormwater runoff exceeding the sub-surface drainage capacity should be accommodated in the civil design.

General Building Requirements

All habitable finished floors shall be no lower than the FPL.

As discussed previously, an appropriate FPL for the Site is expected to be around 9.2 m AHD. The lowest floor level of proposed habitable rooms is 10.87 m AHD, which is significantly higher than the FPL.

Parts of buildings and structures at or below the FPL shall be constructed in accordance with Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land. The development shall be certified by a qualified Structural Engineer that the building has been

designed to withstand the depth of inundation, buoyancy and flow velocity forces (including potential for debris impact) at the development site for a 1:100 ARI event.

The proposed buildings are all elevated above the FPL and so this requirement is not applicable.

Flood-free access shall be provided from the development to an appropriate evacuation facility (as identified in the Maitland Local Flood Plan), at the 1:20 ARI flood level or higher.

The local road network readily provides flood-free access to the nominated evacuation centre at Bolwarra Public School in the Maitland Local Flood Plan.

Provision shall be made for the safe evacuation of people from the development in accordance with the Maitland Local Flood Plan.

Evacuation requirements at the Site are consistent with those of the existing development in Maitland.

Sufficient storage space for household effects shall be provided above the FPL.

The proposed buildings are all elevated above the FPL and so this requirement is not applicable.

Electrical fixtures such as light fittings and switches shall be sited above the FPL unless they are on a separate circuit (with earth leakage protection) to the rest of the building.

The proposed buildings are all elevated above the FPL and so this requirement is not applicable.

Multi-Storey Residential Development

Development for a multi-storey residential building shall be designed and constructed in accordance with the requirements of Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land.

The proposed development is elevated above the Hunter River Extreme Flood level and so this requirement is not applicable.

Conclusion

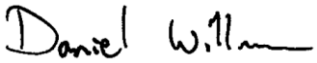
Torrent Consulting was engaged to undertake a Flood Assessment to assist in the DA process for the proposed development at 20 Dunmore Road, Largs, NSW. In addressing the requirements of the Maitland DCP 2011 Part B.3, the proposed development has appropriately considered and managed its flood risk exposure and satisfies the requirements of the Maitland LEP 2011 Part 5.21 Flood Planning, as summarised below.

The proposed development will be significantly elevated above the FPL and so the applicable flood planning requirements are readily addressed. However, the development includes filling of a minor local gully line and so an appropriate overland escape for local catchment stormwater runoff exceeding the sub-surface drainage capacity should be accommodated in the civil design

We trust that this report meets your requirements. For further information or clarification please contact the undersigned.

Yours faithfully

Torrent Consulting



Dan Williams
Director

Title:

Site Locality

0 200 400 m

approx. scale

Figure: 1

Revision: A

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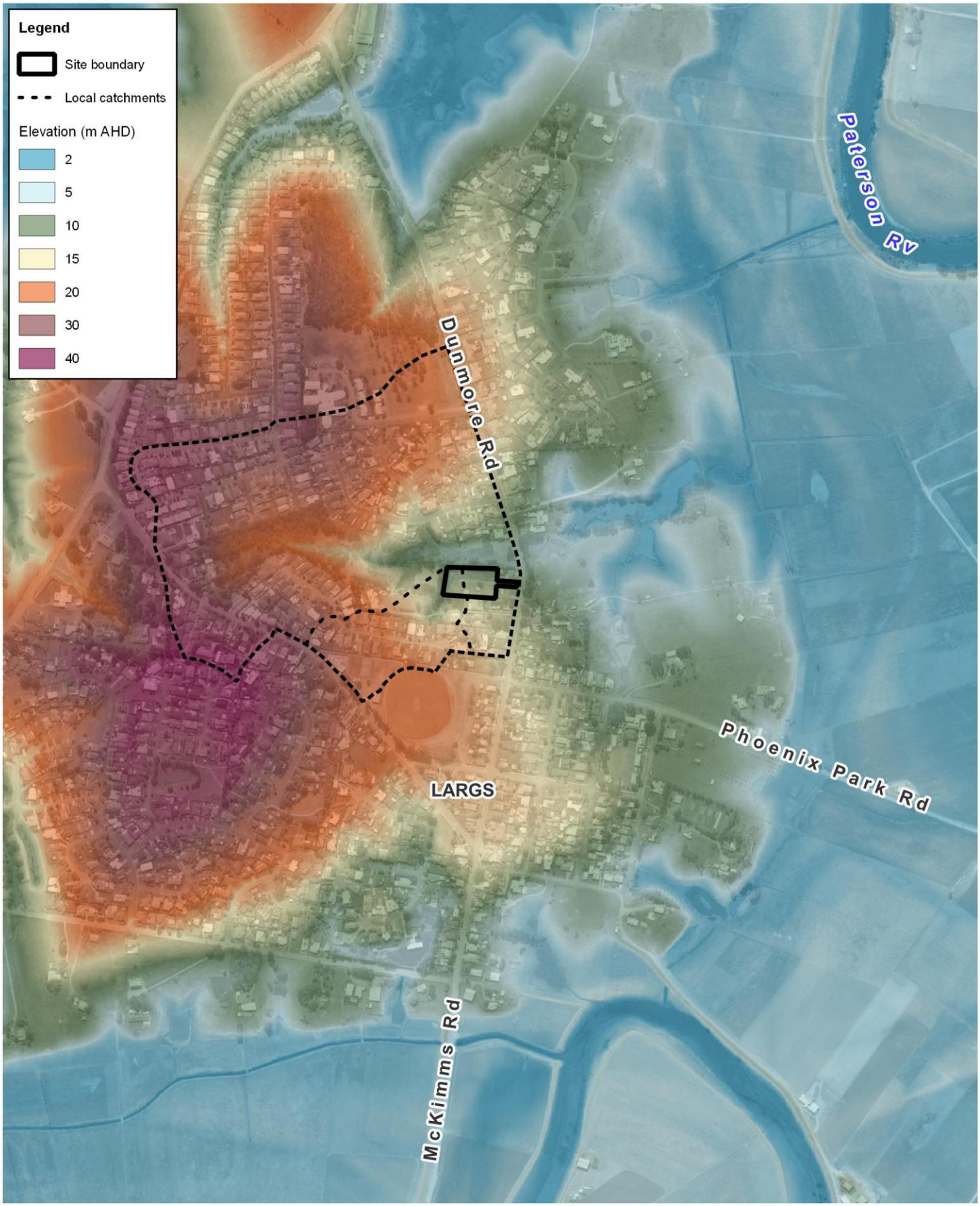

Title:

Local Catchment Topography

0 200 400 m

approx. scale

Figure: 2

Revision: A

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