Sample Flood Risk Report

This is a sample flood risk report. The proposal may or may not be supported by the council or FMA. In this case, because suitable sites are available which are not subject to flooding, the applicant may be asked to amend the application by relocating the proposed house site to land outside the LSIO.

FLOOD RISK REPORT

LOT 1, CA 18B, BROWNS ROAD, JOHNSVILLE

Gumnut Developments Pty Ltd (October 2026)

PROPOSED DWELLING AND ACCESS TRACK

PROPOSED DEVELOPMENT

The land is located on the north side of Browns Road, 500 m east of Cross's Road and is bounded to the north by the Yellow River. The land is 140 hectares in area and is vacant rural land currently used for sheep grazing. The site plan shows the location of the property and the site of the proposed dwelling and access track from Browns Road. It also shows natural ground levels in metres to AHD (Australian Height Datum) and the designation of the FO and the LSIO on the land under the Gumnut Planning Scheme.

The proposed house site is located in the LSIO area.

The proposed brick-veneer dwelling will be 11 m x 20 m and located on an earth-fill pad. The access track will be constructed from crushed rock at ground level. A 150 mm diameter pipe culvert will be placed under the access track where it crosses a small depression.

FLOOD CONDITIONS

About 70 per cent of the property is subject to flooding from the Yellow River. The FMA has advised that the relevant 1 per cent AEP (1 in 100 year) flood level for the property is 138.2 m AHD. During times of flood, flood flows from the Yellow River cross the property from west to east, first filling a number of small depressions and then becoming more widespread.

The northern portion of the property near the river floods about every five years. The higher parts of the property, closer to Browns Road (and including the proposed house site) have only flooded twice in the past 50 years. During the 1993 flood, land near the river was under more than a metre of water and the water was flowing quite quickly, while the floodwater was shallower and slower away from the river.

Flood warning times for this part of the river are fairly long and are adequate to respond to an approaching flood. In 1993, flood warnings issued by the Bureau of Meteorology for Johnsville, some 4 km upstream of the property, predicted major flooding eight hours before the flood peak arrived.

The surveyed ground levels show that the 1 per cent AEP (1 in 100 year) flood depth above natural ground level at the house site is 0.5 m and reaches up to 0.7 m along the access track at the culvert crossing.

FLOOD IMPACTS

At the house site, a building pad will be raised above ground level up to the 1 per cent AEP (1 in 100 year) flood level and the dwelling floor level will be 300 mm above the flood level (138.5 m AHD). Because the house will be raised above the flood level and the floodwater will be shallow and flowing slowly, any flood damage to the house will be minimal.

The maximum flood depth over the access track will be 0.7 m, which is not difficult for a four-wheel-drive vehicle to pass through.

There are no special environmental assets in this part of the floodplain and the development should have no environmental impacts.

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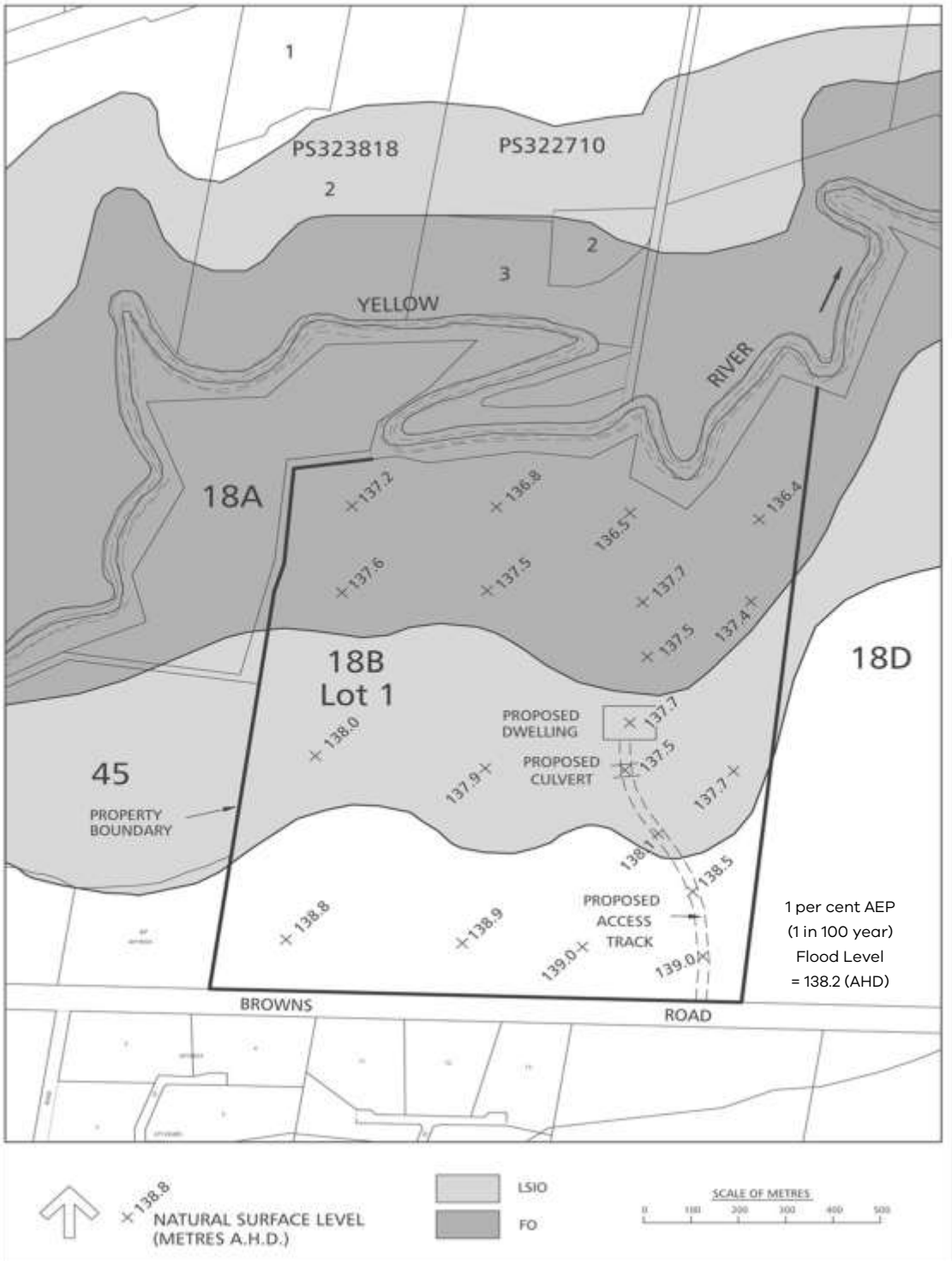
Site Plan


1
PS323818
PS322710
2
2
3
YELLOW
RIVER
18A
+137.2
+136.8
136.5+
+136.4
+137.6
+137.5
+137.7
+137.5
137.4+
18B
Lot 1
18D
PROPOSED
DWELLING
+137.7
+138.0
PROPOSED
CULVERT
137.5
45
137.9+
137.7+
PROPERTY
BOUNDARY
138.1+
138.5
+138.8
+138.9
PROPOSED
ACCESS
TRACK
139.0+
139.0+
1 per cent AEP
(1 in 100 year)
Flood Level
= 138.2 (AHD)
BROWNS
ROAD
+138.8
NATURAL SURFACE LEVEL
(METRES A.H.D.)
LSIO
FO
SCALE OF METRES
0
100
200
300
400
500