

16 December 2024

SLR Ref No.: 630.030480.00003-v0.2-R01-Balgowlah\_McDonalds\_Flooding\_20241216

Attention: Stewart Floresta  
McDonalds Australia Limited  
21-29 Central Avenue  
Thornleigh NSW 2120

SLR Project No.: 630.030480.00003

**RE: McDonalds Balgowlah – 37 Roseberry Street, Balgowlah  
Flood Management Report**

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## **Introduction**

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) for McDonalds Australia Limited to support the proposed development application at 37 Roseberry Street, Balgowlah, NSW (Lot 100 DP 199949).

This report provides flooding advice in relation to the development of a McDonald's take away food and drink premises and the associated flooding issues as required in the Northern Beaches Council Manly Development Control Plan (DCP). This advice has been written based on the architectural plans prepared by Webber Architects (2996 DA000-DA1001 Rev C dated December 2024) and engineering plans prepared by Entec (240001-26 C100-C501 Rev C dated Nov 2024).

## **Site description**

The subject site is located at 37 Roseberry Street, Balgowlah. The land is formally known as Lot 100 of Deposited Plan (DP) 1199949 and is within Zone E3 - Productivity Support of the Manly Local Environmental Plan (LEP) 2013.

The site is bound by Kenneth Road to the north, Roseberry Street to the east, and other retail uses to the south and west. The lot is currently occupied by a Seven Miles Coffee Roasters, which consists of a building with frontages along the northern and eastern boundaries of the site.

The site area is approximately 2,765 m<sup>2</sup>, with retaining walls along the western and boundaries, grading from west to east at approximately 3%. Kenneth Road grades from west to east at approximately 4% to the intersection of Roseberry Street, which grades to the south, away from the site at a flat grade of less than 1%

The rear of the site is bitumen hardstand car parking and loading area, with vehicular entry off Roseberry Street.

## **Proposed Development**

This development application (DA) seeks approval to demolish all existing structures (Seven Miles Coffee Roasters) and development of a McDonald's take-away food and drink premises with dual-lane drive-through to operate on a 24 hour per day basis.

The McDonald's take away food and drink premises is proposed to be a free-standing single-story building with a dual drive-through at the rear and an on-grade carpark. The finished floor level of the proposed building is 8.0 m AHD. Vehicular access is proposed to

be via a driveway from Roseberry Street in the location of the existing vehicular entry to the site, at an elevation of 7.31 m AHD.

The site will grade to the proposed stormwater drainage network shown on drawing 240001-26 C300 Issue B, dated Nov 24, with flows in excess of the pit and pipe network directed overland to the vehicular entry.

## Council flood information

Flooding information for the site has been obtained from the following Council sources:

- Manly Lagoon Flood Study, prepared by BMT WBM, dated 23 August 2013 (R.N2069.005.03), prepared for Manly and Warringah Councils
- Basic Flood Information Report obtained from Northern Beaches Council, dated 08/05/2024
- Comprehensive Flood Information Report obtained from Northern Beaches Council, dated 09/10/2024
- Pre-lodgement Meeting Notes provided by Northern Beaches Council, for the meeting held on 5 November 2024
- Correspondence with Council during design process

### Manly Lagoon Flood Study

The Manly Lagoon Flood Study was prepared for Manly and Warringah Councils (which merged in 2016, along with Pittwater Council to form Northern Beaches Council) to define the existing flood behaviour in the Manly Lagoon catchment and establish the basis for subsequent floodplain management activities.

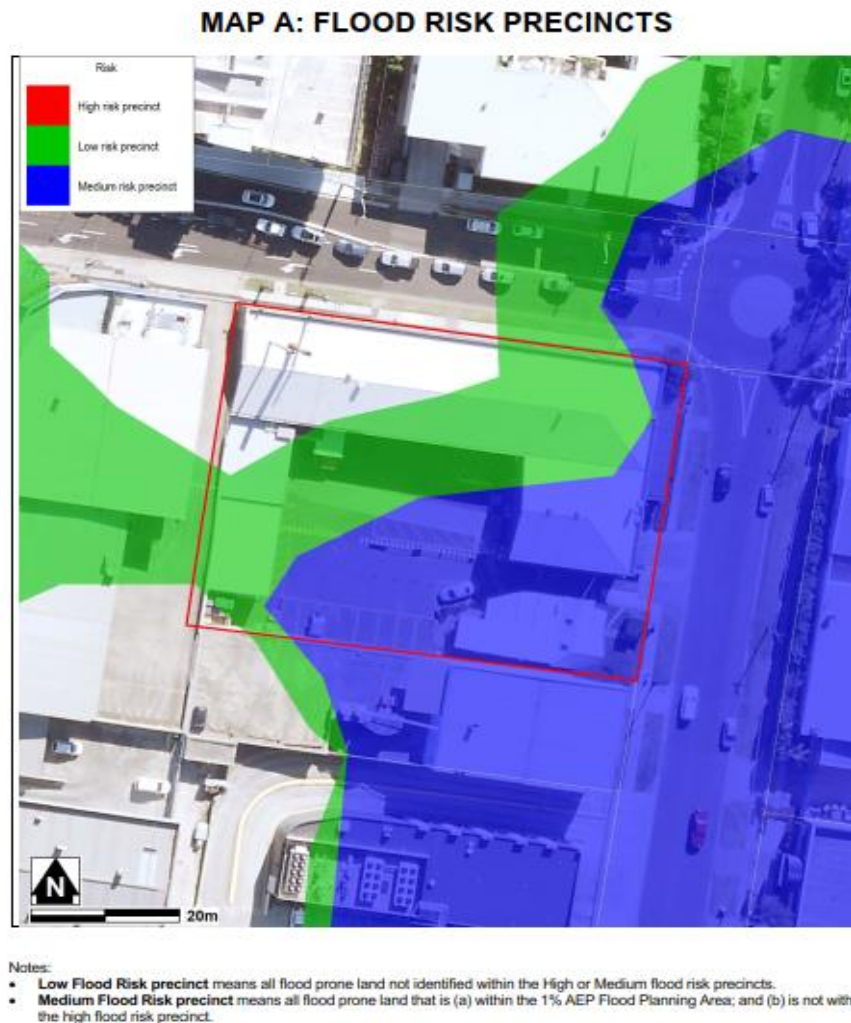
The study identified significant areas of flood risk in the Balgowlah Industrial Estate, where the site is located. Flooding occurs in this area when flows are in excess of the trunk drainage system of Burnt Bridge Creek.

The Manly Lagoon Flood Study is the basis for the flooding information proved by Council.

### Basic Flood Information Report

A Basic Flood Information Report (included as an attachment to this report) has been obtained from Northern Beaches Council, dated 08/05/2024, which identifies the site as within medium and low flood risk precincts by flooding from Burnt Bridge Creek, presented on Figure 1.





**Figure 1 - Flood Risk Precincts**

The Basic Flood Information Report provided flood information for the site

- Flood Planning Level – 9.30 m AHD
- 1% AEP Maximum Water Level – 8.80 m AHD
- Probable Maximum Water Level – 10.37 m AHD

The site is categorised as Flood Fringe in the 1% AEP event.

## Comprehensive Flood Information Report

A Comprehensive Flood Information Report has been obtained for the site from Northern Beaches Council, which identifies the site as flood affected by flooding from Burnt Bridge Creek. Council's Comprehensive Flood Information Report has been included as an attachment to this report. This proposal outlines the qualitative flood assessment required to be submitted to council for the Development Application.

The Comprehensive Flood Information Report provided flood information for the site

- Flood Planning Level – 8.14 m AHD



- 1% AEP Maximum Water Level – 7.64 m AHD
- Probable Maximum Water Level – 10.37 m AHD

The site is categorised as Flood Fringe in the 1% AEP event, and Hazard Category H1-H4 in the PMF.

The Comprehensive Flood Information Report provides flood mapping and spot levels for the 1% AEP event, which have been used to develop flood planning levels. This mapping, provided in Figure 2, indicates minor localised flooding in two small locations within the site, with a total of fourteen identified spot levels provided in a table within the report.

#### MAP B: FLOODING - 1% AEP EXTENT & KEY POINTS



**Figure 2 – 1% AEP Flood Mapping**

Flood levels provided within the tabulated results on page 5 of the Comprehensive Flood Information Report not indicate a water surface level or flood depth in the 1% AEP flood event. A flood planning level is provided for the identified locations:

- |                      |                      |
|----------------------|----------------------|
| • ID 3 – 7.82 m AHD  | • ID 11 – 7.84 m AHD |
| • ID 6 – 7.81 m AHD  | • ID 12 – 7.89 m AHD |
| • ID 9 – 7.89 m AHD  | • ID 13 – 8.14 m AHD |
| • ID 10 – 7.82 m AHD |                      |

Noting that the highest flood planning level at location ID 13 is not shown as flooded on Figure 2.



## Pre-Lodgement Meeting

A pre-lodgement meeting for the Development Application for the site was held on 5 November 2024. No representative from Council's flood services team were available for the meeting, with information in the minutes re-iterating the information provided in the Comprehensive Flood Information Report, with no additional clarifications.

Advice provided at the meeting by Council was that the development was required to comply with prescriptive controls C1 and E1 of the Development Control Plan.

## Additional Council correspondence

During the design process, clarification on flood planning requirements was requested from Council by the project team. Nathan Pearce of Entec, in the preparation of the civil design for the site contacted Uma Shanmugalingam and Patrick Stuart of Northern Beaches Council to confirm flood planning levels.

During these discussions, it was confirmed that the higher flood planning level of 8.14 m AHD for the site was erroneous and that the lower Flood Planning Level of 7.89 m AHD can be used for the site.

## Council flood planning instruments

The following flood planning instruments are relevant to this development application:

- Manly Local Environmental Plan 2013
- Manly Development Control Plan 2013

### Manly Local Environmental Plan 2013

Clause 5.21 Flood Planning lists objectives and requirements to be considered for approval of development within the flood planning area. These objectives relate to minimising risk, avoiding off-site impacts and allowing safe use or evacuation. The matters to be considered by Council include measures to assess the development against the objectives.

Clause 5.22 Special Flood Considerations applies to sensitive and hazardous development on land between the flood planning area and the probable maximum flood that require the evacuation of people or other safety considerations. Clause 5.22 does not list the proposed usage of take away food and drink premises as a sensitive and hazardous development.

### Manly Development Control Plan 2013

Section 5.4.3 Flood Prone Land outlines performance criteria and prescriptive controls that apply to land identified on the Council's Flood Risk Precinct Maps to guide development in accordance with the objectives and processes set out in the NSW Government's Flood Prone Land Policy.

Northern Beaches Council, as part of the pre-lodgement process, have identified two specific areas of the DCP to be addressed as part of this development application:

- Prescriptive control C1
- Prescriptive control E1





## **Prescriptive control C1**

This control states that all buildings shall be constructed as flood compatible in accordance with the Hawkesbury-Nepean Floodplain Management Steering Committee document *Reducing Vulnerability of Buildings to Flood Damage: Guidance on Building in Flood Prone Areas*, 2006. This document provides specific and detailed information on construction methods, materials, building style and design. This document provides recommendations to reduce structural damage due to inundation or higher velocities and facilitate the clean up after a flood, thus reducing the costs and shortening the recovery period.

The architectural plans prepared by Webber Architects (2996 DA000-DA1001 Rev C dated December 2024) and engineering plans prepared by Entec (240001-26 C100-C501 Rev B dated Nov 2024) have been prepared in a manner that complies with these requirements.

## **Prescriptive control E1**

This control requires that the development complies with Council's Flood Emergency Response Planning for Development Policy and the Northern Beaches Flood Emergency Sub Plan.

## **NSW Guidelines for development on flood prone land**

In addition to Council requirements, the following state government documents have been assessed in the preparation of the flood management report, along with the architectural plans prepared by Webber Architects (2996 DA000-DA1001 Rev C dated December 2024) and engineering plans prepared by Entec (240001-26 C100-C501 Rev B dated Nov 2024)

- Considering flooding in land use planning: guidance and statutory requirements, Department of Planning, Industry and Environment – Planning Circular PS 21-006 dated 14 July 2021
- Flood Risk Management Manual – The management of flood liable land, prepared by the NSW Department of Planning and Environment, dated June 2023
- Flood Impact and Risk Assessment Flood Risk Management Guide LU01, prepared by the NSW Department of Planning and Environment , dated February 2022
- Support for Emergency Management Planning Flood Risk Management Guideline EM01, prepared by the NSW Department of Planning and Environment, dated June 2023

## **Flood Emergency Assessment**

Information from Northern Beaches Council indicates that during the PMF event, the Hazard classification of the flooded section of the site is between H1-H4.

Mapping produced by WMB BMT for Council indicates that Roseberry Street is cut off to the south of the site in events as frequent as the 20% (1 in 5) AEP.

Insufficient technical information is available to provide detailed information on the rate and rise and duration of the probable maximum flood event at this exact location.

The development is classified using the methodologies in Part C – Flood emergency response classification of communities of the Support for Emergency Management Planning Flood Risk Management Guideline EM01 as 'partially flood effected – Rising Access Area' in the PMF storm event.



In the scenario where a PMF storm event occurs and persons are still at the take away food and drink premises, adequate warning will be required to allow vehicular access or walking at a continually rising grade to higher ground and safety. These access routes are presented on Figure 3 for site evacuation and Figure 4 for local evacuation to the Manly Vale Community Centre, a total distance of 600 metres from the site.

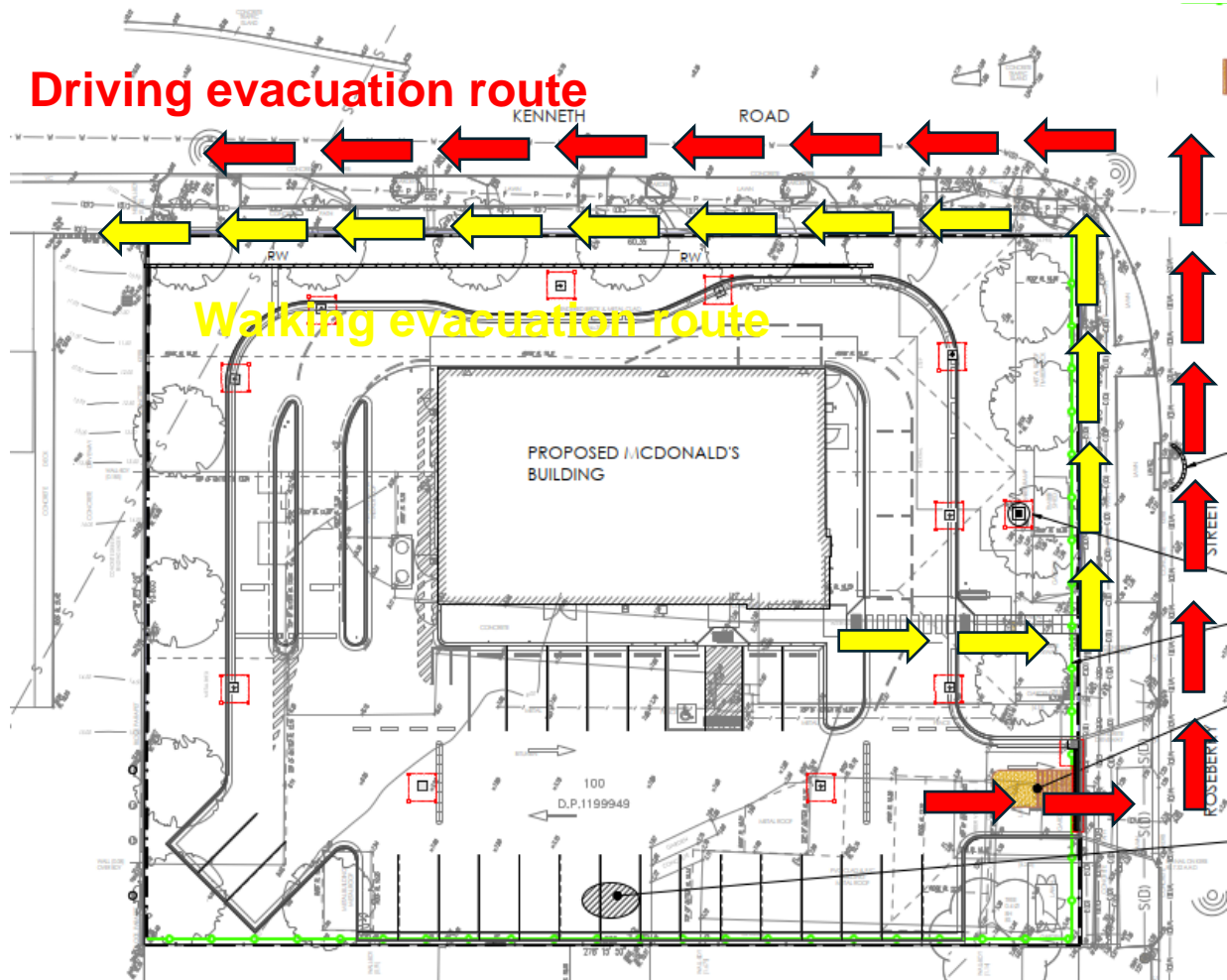
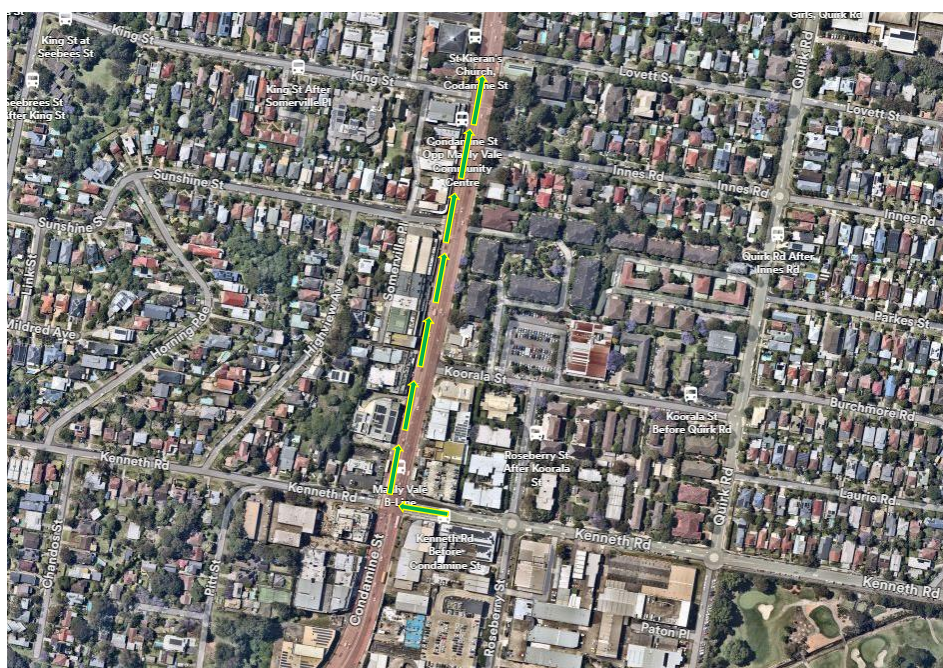


Figure 3 – Site Flood Evacuation Mapping





**Figure 4 – Local Flood Evacuation Mapping**

A Flood Emergency Management Plan will be developed for the operation of the take away food and drink premises, outlining roles and responsibilities in the event of a flood within Burnt Bridge Creek. This management plan will specify actions to be taken in the event of flood warnings being issued by the Bureau of Meteorology and the SES.

These actions will include closing the take away food and drink premises prior to a flood event (when evacuation orders are given by the SES) and plans and management measures to evacuate staff and customers to safety.

## Compliance with Council requirements

The Flood Management Report technical requirements are outlined in Council's Flood Information reports.

The description of the development is provided in the introductory sections of this report.

The flood analysis is provided in the Basic and Comprehensive Flood Information Reports obtained from Northern Beaches Council, (included as attachments to this report)

A summary of compliance for each relevant category of the DCP, in accordance with Council requirements is provided in Table 1.

**Table 1 – Assessment of impacts**

	Requirement	Comment	Compliance
A) Flood effects caused by development	DCP 5.4.3.1	The area is on the edge of the flood fringe and is not impacting flood flows or reducing flood storage	N/A
B) Building Components & Structural Soundness	DCP Prescriptive Control C1	Architectural plans prepared by Webber Architects (2996 DA000-DA1001 Rev C dated	Y





	Requirement	Comment	Compliance
		December 2024) and engineering plans prepared by Entec (240001-26 C100-C501 Rev B dated Nov 2024)	
C) Floor levels	DCP Prescriptive Control F1	Council specified flood planning level of 7.89 m AHD The finished floor level for the site is 8.00 m AHD	Y
D) Car parking	DCP Prescriptive Control G1, G2	Car park levels are above the 1% AEP flood level	Y
E) Emergency response	DCP Prescriptive Control E1	Refer to Flood Emergency Assessment section of this report	Y
F) Fencing	DCP Prescriptive Control H1	-	N/A
G) Storage of goods	DCP Prescriptive Control D1 and D2	All goods will be stored above the Flood Planning Level of 7.89 m AHD	
H) Pools	DCP Prescriptive Control I1	-	N/A

## Conclusion

This report has been prepared to address flooding issues related to the proposed development of a McDonald's take away food and drink premises as required in the Northern Beaches Council Manly Development Control Plan (DCP)

This report has identified that the development application at 37 Roseberry Street, Balgowlah, NSW (Lot 100 DP 199949) is in accordance with Council flood planning requirements.

Regards,

**SLR Consulting Australia**

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Attachments

Northern Beaches Council – Basic Flood Information Report

Northern Beaches Council – Comprehensive Flood Information Report

