Newcastle City-wide
Floodplain Risk Management
Study and Plan

Prepared For: City of Newcastle
Prepared By: BMT WBM Pty Ltd (Member of the BMT group of companies)

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**Client:** City of Newcastle  
**Client Contact:** David Gibbins / Alastair Peddie

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**Title:** The Newcastle City-wide Floodplain Risk Management Study and Plan Compendium of Maps  
**Author:** Dr Philip Haines

**Synopsis:** This document is the complete Floodplain Risk Management Study and Plan for the Newcastle City-wide area. It is the culmination of many years of research and studies, including various Flood Studies for specific catchments, Floodplain Management Studies, and the previous Stage 1 Concept City-wide Flood Plan. The document provides a suite of actions, works and initiatives that when implemented will result in reductions to Risks to Life and Risks to Property across the City.

This City-wide Floodplain Management Plan excludes the Wallsend Commercial Centre, as this area already has an adopted Flood Plan (2009). Apart from updating the mapping of floodplain categories, this document does not supersede or negate the Wallsend Plan in any way. Implementation of both the City-wide Flood Plan and the Wallsend Flood Plan should occur concurrently.

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**Revisions/Checking History**

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<th>Date of Issue</th>
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**Distribution**

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The Newcastle City-wide Floodplain Risk Management Working Party has prepared this document with financial assistance from the NSW Government through the Office of Environment and Heritage. This document does not necessarily represent the opinions of the NSW Government or the Office of Environment and Heritage.
LIST OF MAP SERIES INCLUDED IN THIS COMPENDIUM

Map Series 1  10% AEP Flood Depths
Map Series 2  1% AEP Flood Depths
Map Series 3  PMF Flood Depths
Map Series 4  1% AEP Flood Impact Categories
Map Series 5  PMF Flood Impact Categories
Map Series 6  Risk to Life Hazards (L1-L5)
Map Series 7  Risks to Life on Roads
Map Series 8  Risks to Life in Buildings
Map Series 9  Risk to Property Hazards (P1-P5)
Map Series 10 Potential for Property Damage
Map Series 11 Potential Locations for Elevated Refuge
Newcastle Floodplain Risk Management Study
Map Series 1 - 10% AEP Ocean Flood Depths

LEGEND
Peak Flood Depth (m)

- 2.00
- 1.50
- 1.00
- 0.50
- 0.00
- 0.10
(flood depth (m) not mapped)

Note: Adopted ocean level = 1.35m AHD
(10% AEP with no sea level rise included)

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www.bmtwbm.com.au

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NEWCASTLE Floodplain Risk Management Study
Map Series 2 - 1% AEP Flash Flood Depths

Title:

Newcastle Floodplain Risk Management Study
Map Series 2 - 1% AEP Flash Flood Depths

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www.bmtwbm.com.au
Title: Newcastle Floodplain Risk Management Study
Map Series 2 - 1% AEP Ocean Flood Depths

Legend:
Peak Flood Depth (m)
- 5.00 (higher depths mapped as same colour)
- 2.00
- 1.00
- 0.50
- 0.10 (floodgates 0.1 m deep not mapped)

Note: Adopted ocean level = 2.3 m AHD
(1% AEP with 0.9 m sea level rise included)

BMT WBM endorses the use of this map to support the decision-making process. This map should not be used for navigation, enforcement, or legal purposes.

Approx. Scale: 1:25,000

Figure: 2-D

Rev: A

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See Map 3-B for further detail.

Title:
Newcastle Floodplain Risk Management Study
Map Series 3 - PMF Flash Flood Depths

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LEGEND

- Red: Roads which become floodways or are flooded to a significant depth (1.5m) during frequent or infrequent events
- Yellow: Roads which become floodways or are flooded to a significant depth (1.0m) during an extreme event
- Blue: Roads which are flooded to a minimum depth of 0.3m during an extreme event

Note: Mapping presented for flash flooding only.

Title: Newcastle Floodplain Risk Management Study
Map Series 7 - Risks to Life on Roads

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Legend:
- Red: Roads which become flooded or are flooded to a significant depth (1m) during frequent or infrequent events.
- Yellow: Roads which become flooded or are flooded to a significant depth (1m) during an extreme event.
- Cyan: Roads which are flooded to a minimum depth of 0.3m during an extreme event.

Note: Mapping presented for flash flooding only.

Title:
Newcastle Floodplain Risk Management Study
Map Series 7 - Risks to Life on Roads

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Newcastle Floodplain Risk Management Study
Map Series 8 - Risks to Life in Buildings

LEGEND
- Buildings that are within floodways or are flooded to a significant depth (1m above floor) during frequent or relevant events
- Buildings that are within floodways or are flooded to a substantial depth (2m above floor) during an extreme event
- Buildings that are flooded to a significant depth (1m above floor) during an extreme event

Note: Mapping presented for flash flooding only

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Map: 8-INDEX
Rev: A

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www.bmtwbm.com.au
Newcastle Floodplain Risk Management Study
Map Series 8 - Risks to Life in Buildings

LEGEND

Red: Buildings that are within floodways or are flooded to a significant depth (1m above floor) during frequent or infrequent events
Yellow: Buildings that are within floodways or are flooded to a substantial depth (2m above floor) during an extreme event
Blue: Buildings that are flooded to a significant depth (1m above floor) during an extreme event

Note: Mapping presented for flash flooding only.

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Newcastle Floodplain Risk Management Study
Map Series 10 - Potential for Property Damage

LEGEND
- Red: Buildings that are flooded above floor level during frequent events
- Yellow: Buildings that are flooded above floor level during infrequent events
- Blue: Buildings that are flooded above floor level during an extreme event
- Purple: Buildings that are in close proximity to an open channel
Note: Mapping presented for flash flooding only.

Title: Newcastle Floodplain Risk Management Study
Map Series 11 - Potential Locations for Elevated Refuge

LEGEND
- Requires further investigation
- Requires structural work to address hydrostatic loading
- No additional structural works required

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Newcastle Floodplain Risk Management Study
Map Series 11 - Potential Locations for Elevated Refuge

LEGEND

- Red: Requires further investigation
- Yellow: Requires structural work to address hydrostatic loading
- Blue: No additional structural works required

Note: Mapping presented for flash flooding only.