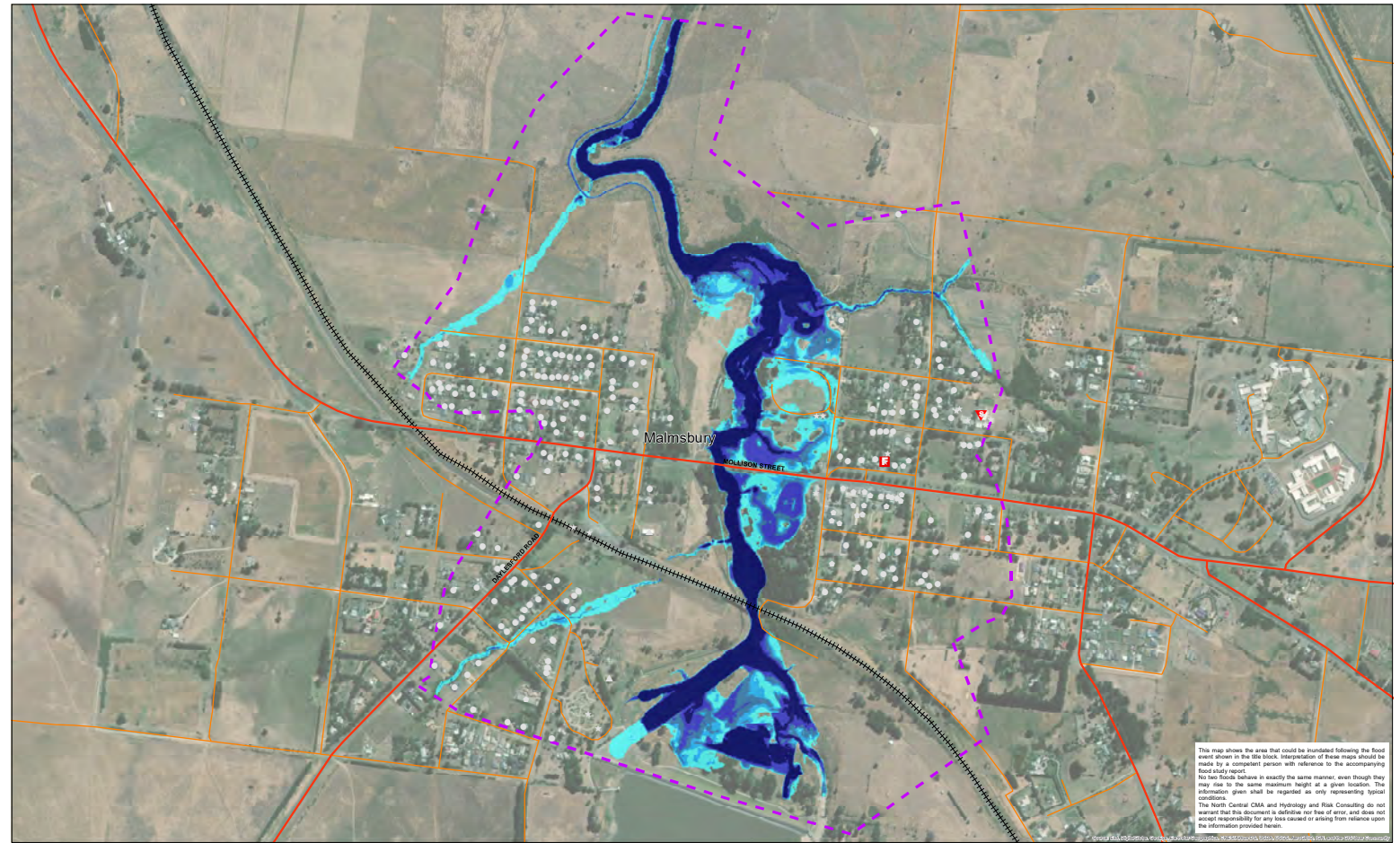


Appendix A Maps



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report. No two flood events are exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions. The North Central CMA and Hydrology and Risk Consulting do not warrant that this document is definitive nor free of error, and does not accept responsibility for any loss caused or arising from reliance upon the information provided herein.

Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Details\InundationPages_Detailed\Map045.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocapture Polygons: Navigable, PSMA Australia

Legend

CFAMFS Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

Residential

Commercial

Industrial

Public

Building Inundation

not inundated

inundated (without floor level survey)

below floor level (with floor level survey)

above floor level (with floor level survey)

Max Depth (m)

0.3 - 0.5

0.5 - 0.8

0.8 - 1.2

1.2 - 1.5

Drawn:	A. SHEN	Project Director:	D. STEPHENS
Checked:	T. CRAIG		
Project Manager:	A. NORTHFIELD		
Project No.:	NCC00002		
North Central CMA Project Manager:	N. TRELOAR		

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT

MAXIMUM DEPTH (m)

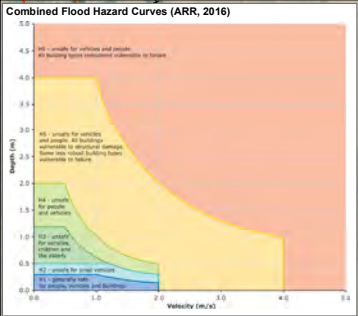
Malsbury - 20% AEP Flood Event

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500
when printed @ A1

Date: 25/02/2020

Map No: 15 - 5 - 1



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report. No two flood events in exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions. The North Central CMA and Hydrology and Risk Consulting do not warrant that this document is definitive nor free of error, and does not accept responsibility for any loss caused or arising from reliance upon the information provided herein.

Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Details\InundationPages_HazardAMGAS.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygon: Navigable, P260A, Australia.

Legend

CFAMFB Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

- Residential
- Commercial
- Industrial
- Public

Building Inundation

- not inundated
- inundated (without floor level survey)
- below floor level (with floor level survey)
- above floor level (with floor level survey)

Locality Map

Drawn: A. SHEN	Project Director: D. STEPHENS
Checked: T. CRAIG	
Project Manager: A. NORTHFIELD	
Project No.: NCC00002	
North Central CMA Project Manager: N. TRELOAR	

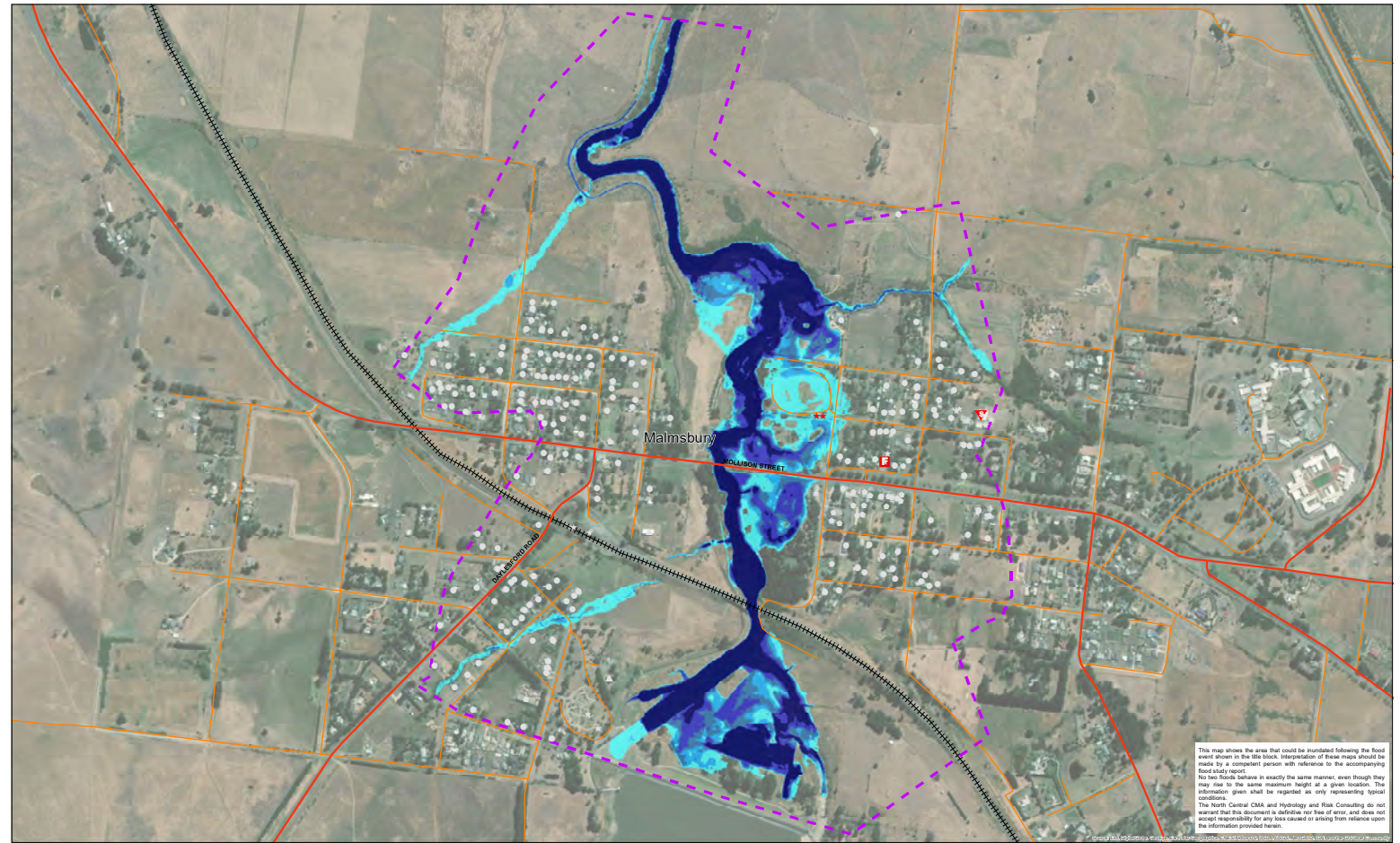
NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT
MAXIMUM HAZARD

Malmesbury - 20% AEP Flood Event

Scale: 1:4,500 when printed @ A1

Date: 25/02/2020

Map No.: 15 - 5 - 4



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
No two flood events are exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions.
The North Central CMA and Hydrology and Risk Consulting do not warrant that this document is definitive nor free of error, and does not accept responsibility for any loss caused or arising from reliance upon the information provided herein.

Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Datamaps\pages_Datamaps\MGAS5.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygons: Navigable, PSMA Australia.

Legend CFAMFS Fire Station Police Station Hospital School/College Nursing Home/Aged Care Caravan Park Main Road Tertiary Road Railway Line Flood Model Extent Building Classification Residential Commercial Industrial Public Building Inundation not inundated inundated (without floor level survey) below floor level (with floor level survey) above floor level (with floor level survey) Max Depth (m) < 0.3 0.3 - 0.5 0.5 - 0.8 0.8 - 1.2 > 1.2		<table><tr><td>Drawn: A. SHEN</td><td>Project Director: D. STEPHENS</td></tr><tr><td>Checked: T. CRAIG</td><td></td></tr><tr><td>Project Manager: A. NORTHFIELD</td><td></td></tr><tr><td>Project No.: NCC00002</td><td></td></tr><tr><td>North Central CMA Project Manager: N. TRELOAR</td><td></td></tr></table>	Drawn: A. SHEN	Project Director: D. STEPHENS	Checked: T. CRAIG		Project Manager: A. NORTHFIELD		Project No.: NCC00002		North Central CMA Project Manager: N. TRELOAR		NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT MAXIMUM DEPTH (m) Malmsbury - 10% AEP Flood Event Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 55	<table><tr><td>Scale: 1:4,500 when printed @ A1</td><td>Date: 25/02/2020</td><td>Map No.: 15 - 10 - 1</td></tr><tr><td></td><td></td><td></td></tr></table>	Scale: 1:4,500 when printed @ A1	Date: 25/02/2020	Map No.: 15 - 10 - 1			
Drawn: A. SHEN	Project Director: D. STEPHENS																			
Checked: T. CRAIG																				
Project Manager: A. NORTHFIELD																				
Project No.: NCC00002																				
North Central CMA Project Manager: N. TRELOAR																				
Scale: 1:4,500 when printed @ A1	Date: 25/02/2020	Map No.: 15 - 10 - 1																		



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
No two flood events are exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions.
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Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Datamaps\Pages_VaDmax\MGASS.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygons: Navigable, PSMA Australia.

Legend

CFMFB Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

Residential

Commercial

Industrial

Public

Building Inundation

not inundated

inundated (without floor level survey)

below floor level (with floor level survey)

above floor level (with floor level survey)

Max V x D (m²/s)

0.4 - 0.8

0.8 - 1.2

> 1.2 symbol"/> > 1.2

Locality Map

Drawn: A. SHEN

Project Director: D. STEPHENS

Checked: T. CRAIG

Project Manager: A. NORTHFIELD

Project No.: NCC00002

North Central CMA Project Manager: N. TRELOAR

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT

MAXIMUM V x D (m²/s)

Malmesbury - 10% AEP Flood Event

Horizontal Datum: GDA 1994

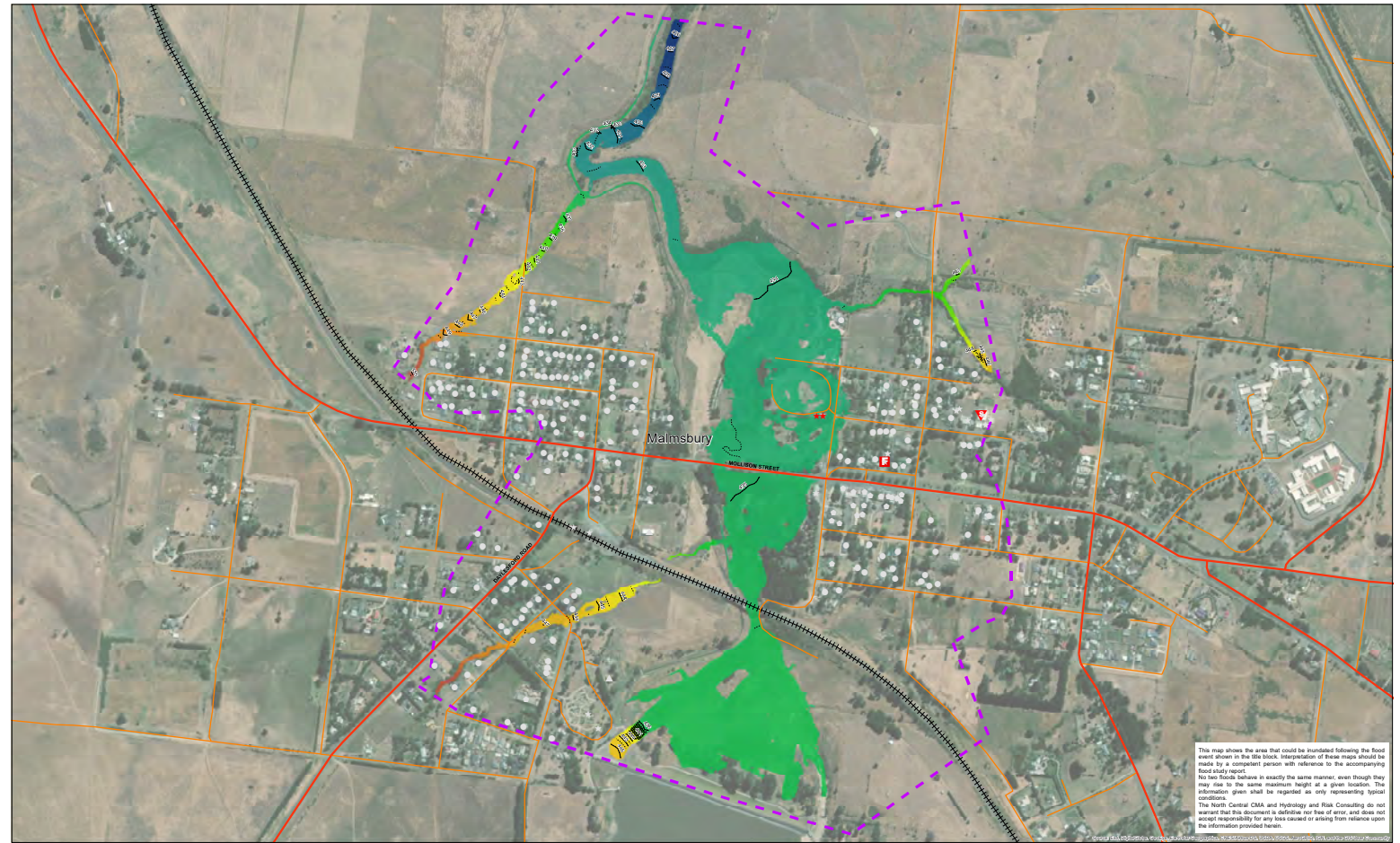
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500

when printed @ A1

Date: 25/02/2020

Map No.: 15 - 10 - 2



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
No fee shall be charged for the use of this map, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions.
The North Central CMA and Hydrology and Risk Consulting do not warrant that this document is definitive nor free of error, and does not accept responsibility for any loss caused or arising from reliance upon the information provided herein.

Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Details\mappages_HumanMGAS5.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocaching: Navigite, PSMIA Australia.

Legend

- CFAMFB Fire Station
- Police Station
- Hospital
- School/College
- Nursing Home/Aged Care
- Caravan Park
- Main Road
- Tertiary Road
- Railway Line
- Flood Model Extent
- Contour (1m)
- Contour (0.5m)

Building Classification

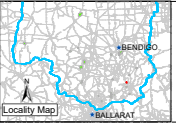
- Residential
- Commercial
- Industrial
- Public

Building Inundation

- not inundated
- inundated (without floor level survey)
- below floor level (with floor level survey)
- above floor level (with floor level survey)

Max WSE (mAH) Malmesbury

Value	High 454
Low 427	



Drawn: A. SHEN	Project Director: D. STEPHENS
Checked: T. CRAIG	
Project Manager: A. NORTHFIELD	
Project No.: NCC00002	
North Central CMA Project Manager: N. TRELOAR	

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT
MAXIMUM WATER LEVEL (mAH)
Malmesbury - 10% AEP Flood Event

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500
Date: 25/02/2020
Map No.: 15 - 10 - 3



This map shows the area that should be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.

No two floods behave in exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions.

The North Central CMA and Hydrology and Risk Consulting do not warrant that this document is definitive nor free of error, and does not accept responsibility for any loss caused or arising from reliance upon the information provided herein.



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
No two flood events in exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions.
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Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Datamaps\pages_Vmax\MGAS5.mxd
Roads Layer: Vmax; Imagery: ESRI; Geocache Polygons: Navigable, PSMA Australia

Legend

CFAMFB Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

Residential

Commercial

Industrial

Public

Building Inundation

not inundated

inundated (without floor level survey)

below floor level (with floor level survey)

above floor level (with floor level survey)

Max Velocity (m/s)

< 1

1 - 2

2 - 3

> 3

Drawn: A. SHEN

Project Director: D. STEPHENS

Checked: T. CRAIG

Project Manager: A. NORTHFIELD

Project No.: NCC00002

North Central CMA Project Manager: N. TRELOAR

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT

MAXIMUM VELOCITY (m/s)

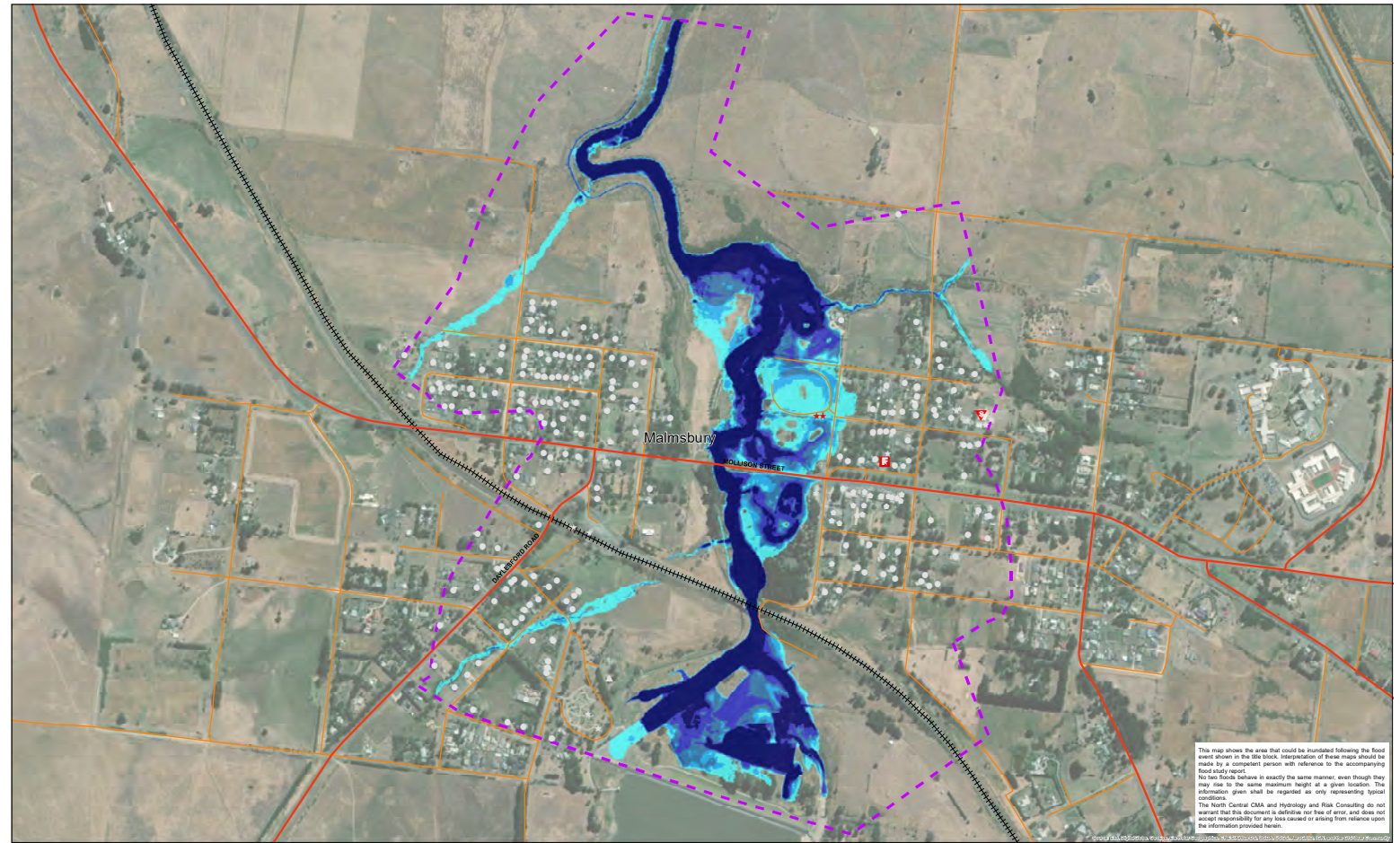
Malmesbury - 10% AEP Flood Event

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500
when printed @ A1

Date: 25/02/2020

Map No.: 15 - 10 - 5



Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Details\InundationPages_Detailed\Map045.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocapex Polygons: Navigable, P26A, Australia.

Legend CFAMFS Fire Station Police Station Hospital School/College Nursing Home/Aged Care Caravan Park Main Road Tertiary Road Railway Line Flood Model Extent Building Classification Residential Commercial Industrial Public Building Inundation not inundated inundated (without floor level survey) below floor level (with floor level survey) above floor level (with floor level survey) Max Depth (m) < 0.3 0.3 - 0.5 0.5 - 0.8 0.8 - 1.2 > 1.2		<table><tr><td>Drawn: A. SHEN</td><td>Project Director: D. STEPHENS</td></tr><tr><td>Checked: T. CRAIG</td><td></td></tr><tr><td>Project Manager: A. NORTHFIELD</td><td></td></tr><tr><td>Project No.: NCC00002</td><td></td></tr><tr><td>North Central CMA Project Manager: N. TRELOAR</td><td></td></tr></table>	Drawn: A. SHEN	Project Director: D. STEPHENS	Checked: T. CRAIG		Project Manager: A. NORTHFIELD		Project No.: NCC00002		North Central CMA Project Manager: N. TRELOAR		NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT MAXIMUM DEPTH (m) Malmesbury - 5% AEP Flood Event Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 55	<table><tr><td>Scale: 1:4,500 when printed @ A1</td><td>Date: 25/02/2020</td><td>Map No.: 15 - 20 - 1</td></tr><tr><td></td><td></td><td></td></tr></table>	Scale: 1:4,500 when printed @ A1	Date: 25/02/2020	Map No.: 15 - 20 - 1			
Drawn: A. SHEN	Project Director: D. STEPHENS																			
Checked: T. CRAIG																				
Project Manager: A. NORTHFIELD																				
Project No.: NCC00002																				
North Central CMA Project Manager: N. TRELOAR																				
Scale: 1:4,500 when printed @ A1	Date: 25/02/2020	Map No.: 15 - 20 - 1																		



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
No two flood events are exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions.
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Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Details\InundationPages_VaDmaxMGASS.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocapex Polygons: Navigare, PSMA Australia

Legend

CFAMFB Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

Residential

Commercial

Industrial

Public

Building Inundation

not inundated

inundated (without floor level survey)

below floor level (with floor level survey)

above floor level (with floor level survey)

Max V x D (m³/s)

0.4 - 0.8

0.8 - 1.2

> 1.2 symbol"/> > 1.2

Locality Map

Drawn: A. SHEN

Project Director: D. STEPHENS

Checked: T. CRAIG

Project Manager: A. NORTHFIELD

Project No.: NCC00002

North Central CMA Project Manager: N. TRELOAR

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT

MAXIMUM V x D (m³/s)

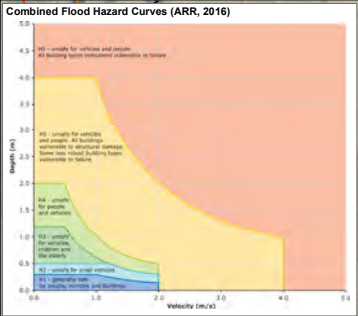
Malmesbury - 5% AEP Flood Event

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500
when printed @ A1

Date: 25/02/2020

Map No.: 15 - 20 - 2



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report. No two floods behave in exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions. The North Central CMA and Hydrology and Risk Consulting do not warrant that this document is definitive nor free of error, and does not accept responsibility for any loss caused or arising from reliance upon the information provided herein.

Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Details\Inundation_Hazard\AMGAS.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygon: Navigable, P260A, Australia.

Legend

Building Classification

- Residential
- Commercial
- Industrial
- Public

Building Inundation

- not inundated
- inundated (without floor level survey)
- below floor level (with floor level survey)
- above floor level (with floor level survey)

Locality Map

Drawn: A. SHEN	Project Director: D. STEPHENS
Checked: T. CRAIG	
Project Manager: A. NORTHFIELD	
Project No.: NCC00002	
North Central CMA Project Manager: N. TRELOAR	

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT
MAXIMUM HAZARD

Malmesbury - 5% AEP Flood Event

Scale: 1:4,500 when printed @ A1

Date: 25/02/2020

Map No.: 15 - 20 - 4



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
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Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Datamaps\pages_Vmax\MGAS5.mxd
Roads Layer: Vmax; Imagery: ESRI; Geocache Polygons: Navigable, PSMA Australia

Legend

CFMFB Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

Residential

Commercial

Industrial

Public

Building Inundation

not inundated

inundated (without floor level survey)

below floor level (with floor level survey)

above floor level (with floor level survey)

Max Velocity (m/s)

< 1

1 - 2

2 - 3

> 3

Drawn: A. SHEN

Checked: T. CRAIG

Project Manager: A. NORTHFIELD

Project No.: NCC00002

North Central CMA Project Manager: N. TRELOAR

Project Director: D. STEPHENS

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT

MAXIMUM VELOCITY (m/s)

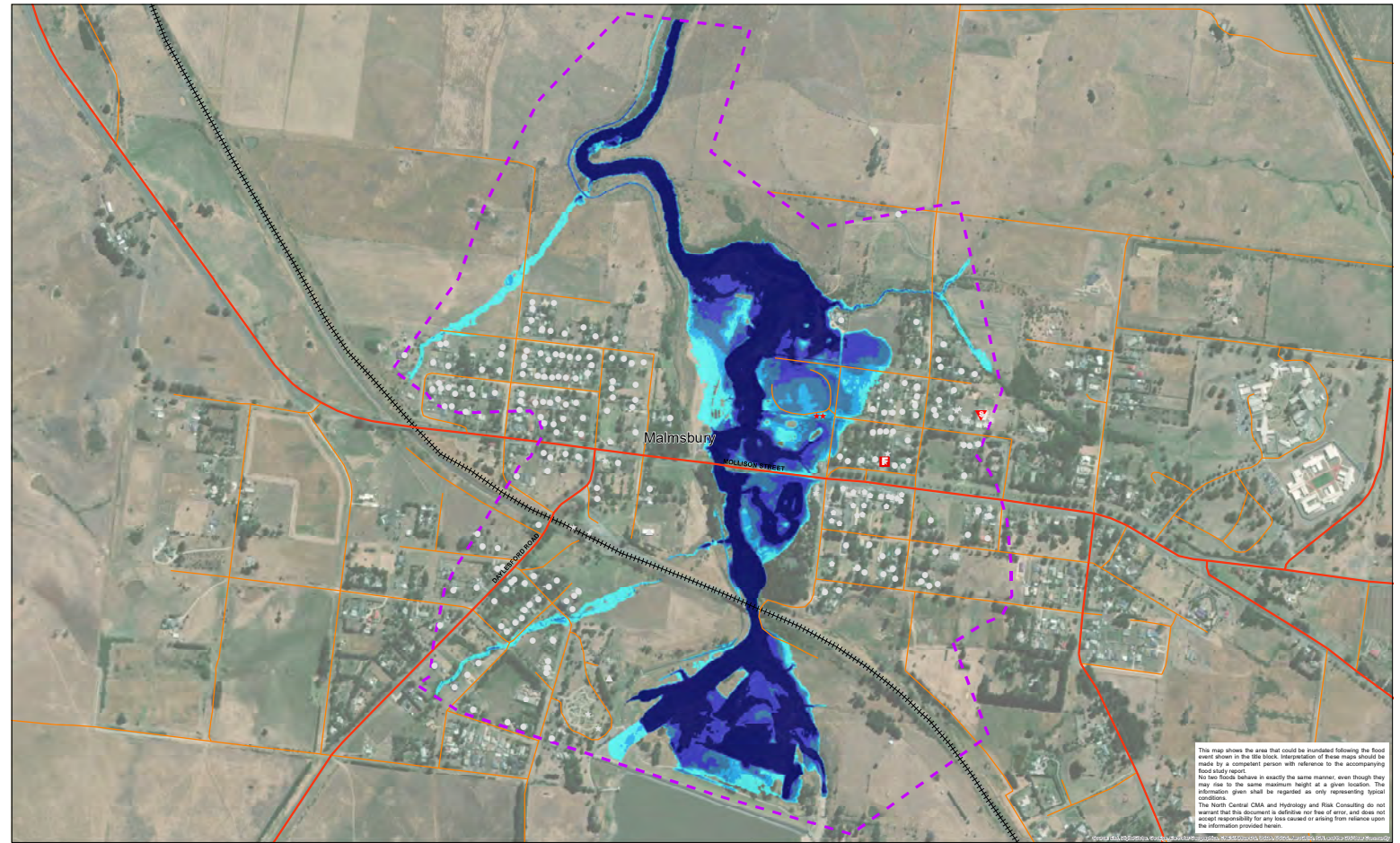
Malmesbury - 5% AEP Flood Event

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500
when printed @ A1

Date: 25/02/2020

Map No.: 15 - 20 - 5



Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Datamaps\pages_Datamaps\Map045.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygon: Navigable, PSMA Australia

Legend

CFAMFS Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

Residential

Commercial

Industrial

Public

Building Inundation

not inundated

inundated (without floor level survey)

below floor level (with floor level survey)

above floor level (with floor level survey)

Max Depth (m)

< 0.3

0.3 - 0.5

0.5 - 0.8

0.8 - 1.2

> 1.2

Drawn: A. SHEN

Project Director: D. STEPHENS

Checked: T. CRAIG

Project Manager: A. NORTHFIELD

Project No.: NCC00002

North Central CMA Project Manager: N. TRELOAR

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT

MAXIMUM DEPTH (m)

Malsbury - 2% AEP Flood Event

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500
when printed @ A1

Date: 25/02/2020

Map No.: 15 - 50 - 1



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
No two flood events in exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions.
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Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Details\InundationPages_VaDmaxMGASS.mxd
Roads Layer: Vmap; Imagery: ESRI; Geoscape Polygons: Navigable, PSMA Australia.

Legend

CFAMFB Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

Residential

Commercial

Industrial

Public

Building Inundation

not inundated

inundated (without floor level survey)

below floor level (with floor level survey)

above floor level (with floor level survey)

Max V x D (m/s)

< 0.4

0.4 - 0.8

0.8 - 1.2

> 1.2

Drawn: A. SHEN

Project Director: D. STEPHENS

Checked: T. CRAIG

Project Manager: A. NORTHFIELD

Project No.: NCC00002

North Central CMA Project Manager: N. TRELOAR

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT
MAXIMUM V x D (m/s)
Malmesbury - 2% AEP Flood Event

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

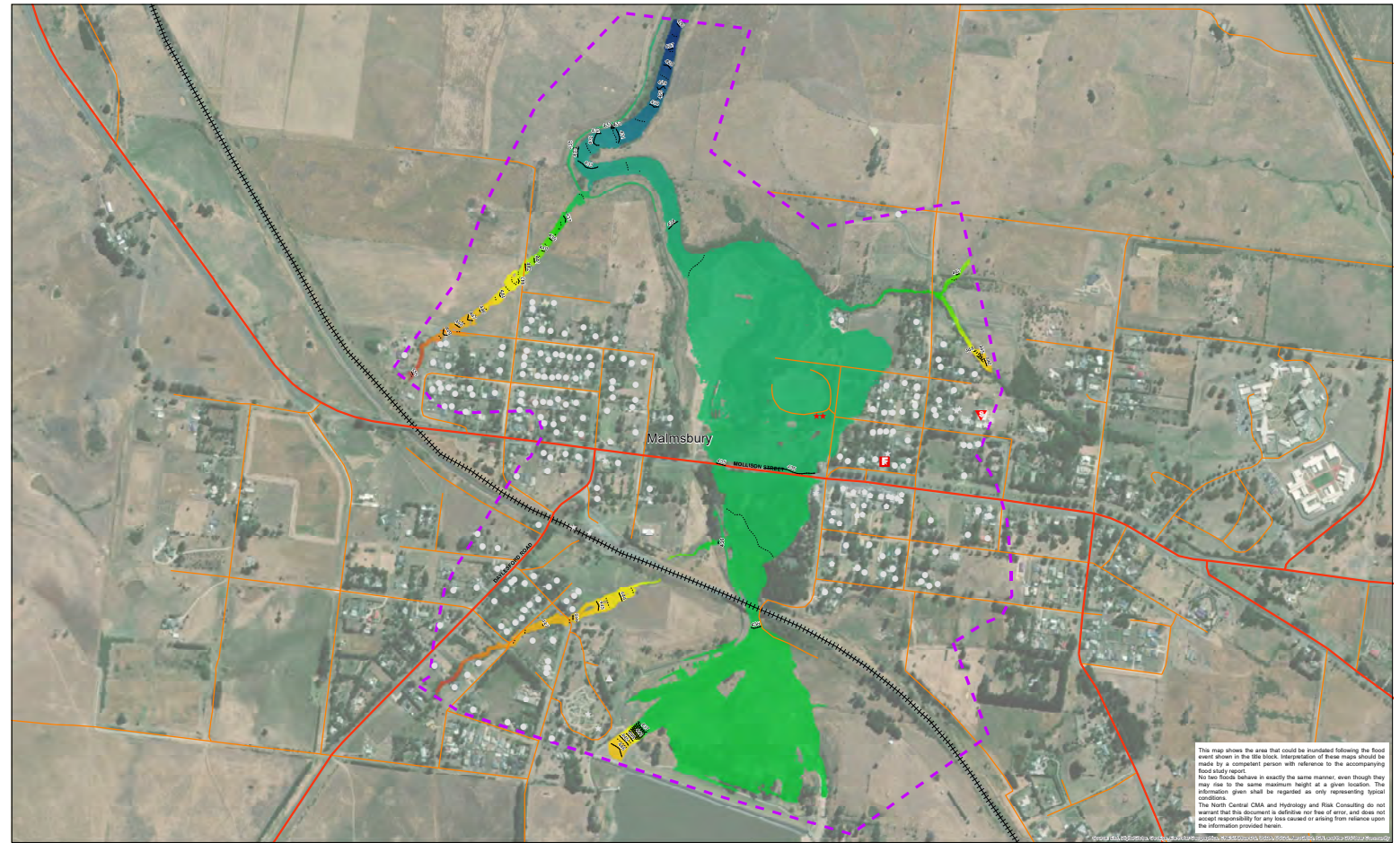
Scale: 1:4,500
when printed @ A1

Date: 25/02/2020

Map No.: 15 - 50 - 2

North Central CMA

National Government



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
No two floods behave in exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions.
The North Central CMA and Hydrology and Risk Consulting do not warrant that this document is definitive nor free of error, and does not accept responsibility for any loss caused or arising from reliance upon the information provided herein.

Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Dataviewpages_HumanMGAS5.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygons: Navigable, PSMA, Australia.

Legend

- CFAMFB Fire Station
- Police Station
- Hospital
- School/College
- Nursing Home/Aged Care
- Caravan Park
- Main Road
- Tertiary Road
- Railway Line
- Flood Model Extent
- Contour (1m)
- Contour (0.5m)

Building Classification

- Residential
- Commercial
- Industrial
- Public

Building Inundation

- not inundated
- inundated (without floor level survey)
- below floor level (with floor level survey)
- above floor level (with floor level survey)

Max WSE (mAHD) Malmesbury

Value	High	Low
454	427	

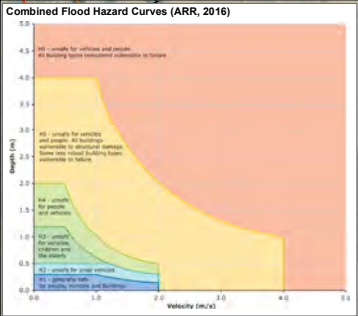


Drawn: A. SHEN	Project Director: D. STEPHENS
Checked: T. CRAIG	
Project Manager: A. NORTHFIELD	
Project No.: NCC00002	
North Central CMA Project Manager: N. TRELOAR	

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT
MAXIMUM WATER LEVEL (mAHD)
Malmesbury - 2% AEP Flood Event

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500
Date: 25/02/2020
Map No.: 15-50-3



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report. No two flood events in exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions. The North Central CMA and Hydrology and Risk Consulting do not warrant that this document is definitive nor free of error, and does not accept responsibility for any loss caused or arising from reliance upon the information provided herein.

Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Details\Inundation_HazardMap\GASS.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygon: Navigable, P260A, Australia.

Legend

CFAMFB Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

- Residential
- Commercial
- Industrial
- Public

Building Inundation

- not inundated
- inundated (without floor level survey)
- below floor level (with floor level survey)
- above floor level (with floor level survey)

Locality Map

Drawn: A. SHEN	Project Director: D. STEPHENS
Checked: T. CRAIG	
Project Manager: A. NORTHFIELD	
Project No.: NCC00002	
North Central CMA Project Manager: N. TRELOAR	

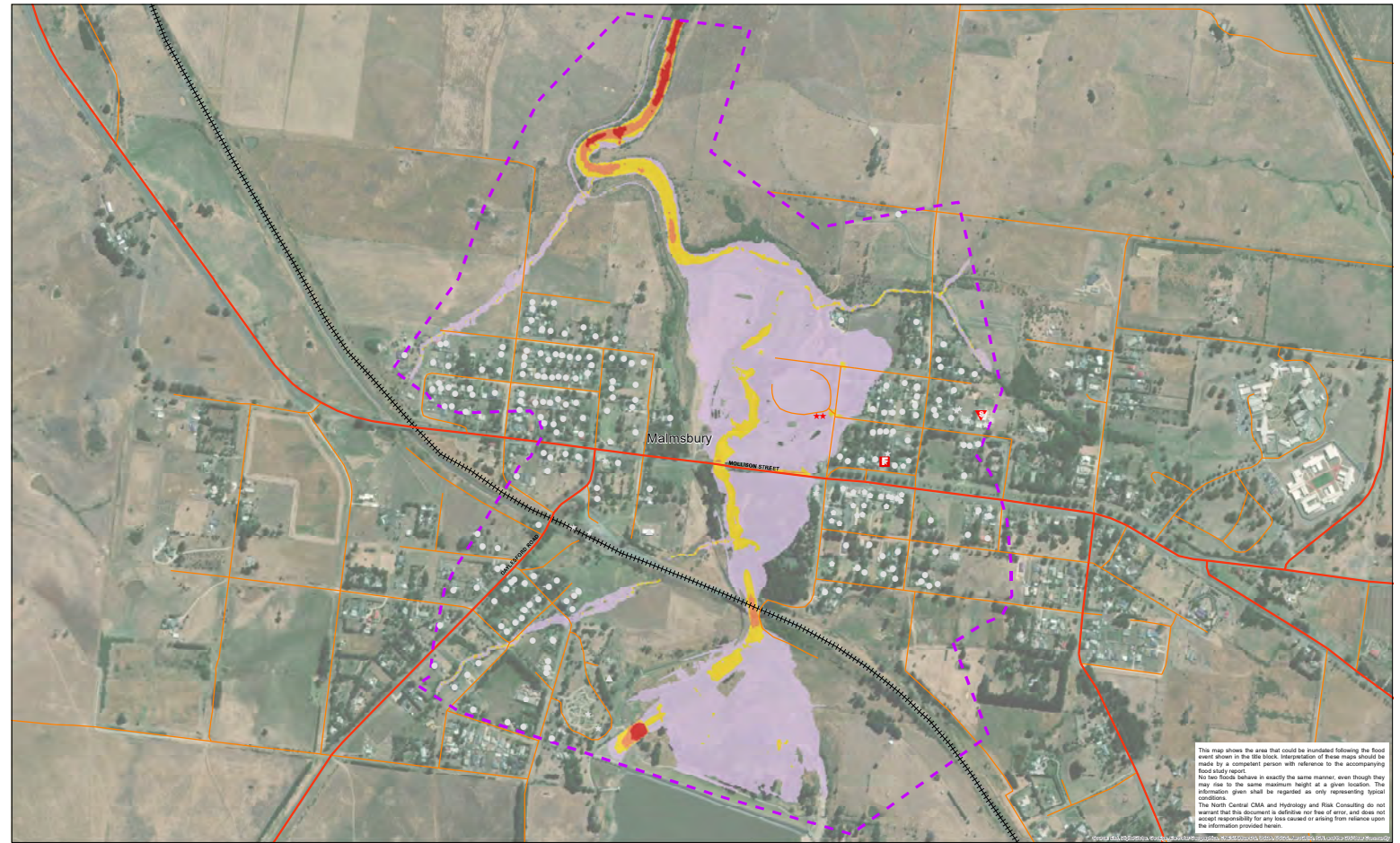
NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT
MAXIMUM HAZARD

Malmesbury - 2% AEP Flood Event

Scale: 1:4,500 when printed @ A1

Date: 25/02/2020

Map No.: 15 - 50 - 4



Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Datamaps\pages_Vmax\MGAS5.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygon: Navigable, PSMA Australia

Legend

CFMFB Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

Residential

Commercial

Industrial

Public

Building Inundation

not inundated

inundated (without floor level survey)

below floor level (with floor level survey)

above floor level (with floor level survey)

Max Velocity (m/s)

< 1

1 - 2

2 - 3

> 3

Locality Map

Drawn: A. SHEN

Project Director: D. STEPHENS

Checked: T. CRAIG

Project Manager: A. NORTHFIELD

Project No.: NCC00002

North Central CMA Project Manager: N. TRELOAR

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT

MAXIMUM VELOCITY (m/s)

Malmesbury - 2% AEP Flood Event

0

200

400

Meters

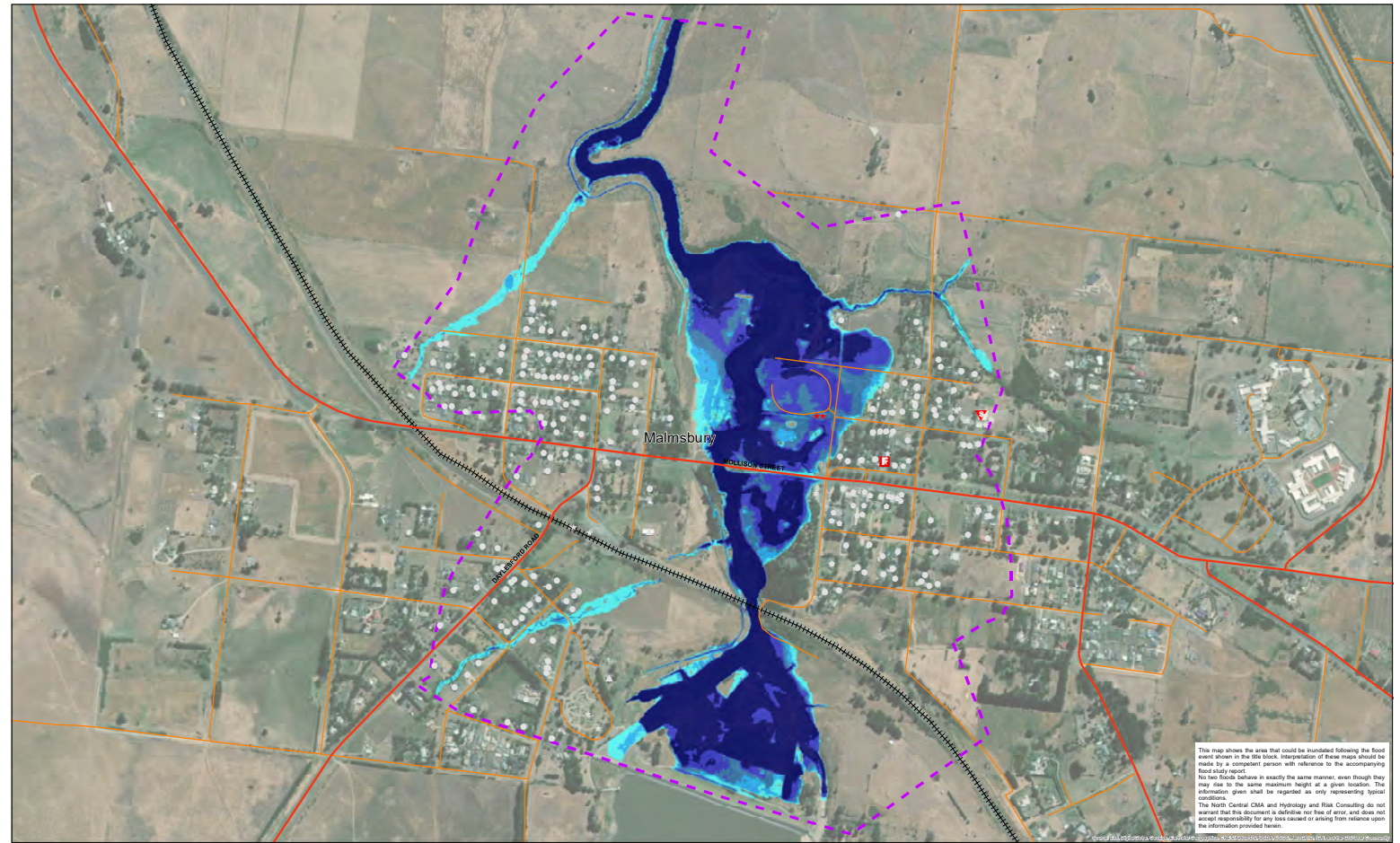
Horizontal Datum: GDA 1994

Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500

Date: 25/02/2020

Map No.: 15 - 50 - 5



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report. No two floods behave in exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions. The North Central CMA and Hydrology and Risk Consulting do not warrant that this document is definitive nor free of error, and does not accept responsibility for any loss caused or arising from reliance upon the information provided herein.

Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Datamaps\Pages_Datamaps\Map045.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygons: Navigable, PSMA Australia

Legend CFAMFS Fire Station Police Station Hospital School/College Nursing Home/Aged Care Caravan Park Main Road Tertiary Road Railway Line Flood Model Extent Building Classification Residential Commercial Industrial Public Building Inundation not inundated inundated (without floor level survey) below floor level (with floor level survey) above floor level (with floor level survey) Max Depth (m) < 0.3 0.3 - 0.5 0.5 - 0.8 0.8 - 1.2 > 1.2	Locality Map BENDIGO BALLARAT	Drawn: A. SHEN Checked: T. CRAIG Project Manager: A. NORTHFIELD Project No.: NCC00002 North Central CMA Project Manager: N. TRELOAR Project Director: D. STEPHENS	NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT MAXIMUM DEPTH (m) Malmesbury - 1% AEP Flood Event 0 200 400 Meters N Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 55	Scale: 1:4,500 when printed @ A1 Date: 25/02/2020 Map No.: 15 - 100 - 1 Hydrology and Risk North Central CMA VICTORIA Government Australian Government
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This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
No two flood events are exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions.
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Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Datamaps\Pages_VaDmap\MGASS.mxd
Roads Layer: Vmap; Imagery: ESRI; Geoscape Polygons: Navigable, PSMA Australia.

Legend

CFAMFB Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

Residential

Commercial

Industrial

Public

Building Inundation

not inundated

inundated (without floor level survey)

below floor level (with floor level survey)

above floor level (with floor level survey)

Max V x D (m/s)

0.4 - 0.8

0.8 - 1.2

> 1.2 symbol"/> > 1.2

Locality Map

Drawn: A. SHEN

Project Director: D. STEPHENS

Checked: T. CRAIG

Project Manager: A. NORTHFIELD

Project No.: NCC00002

North Central CMA Project Manager: N. TRELOAR

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT

MAXIMUM V x D (m/s)

Malmesbury - 1% AEP Flood Event

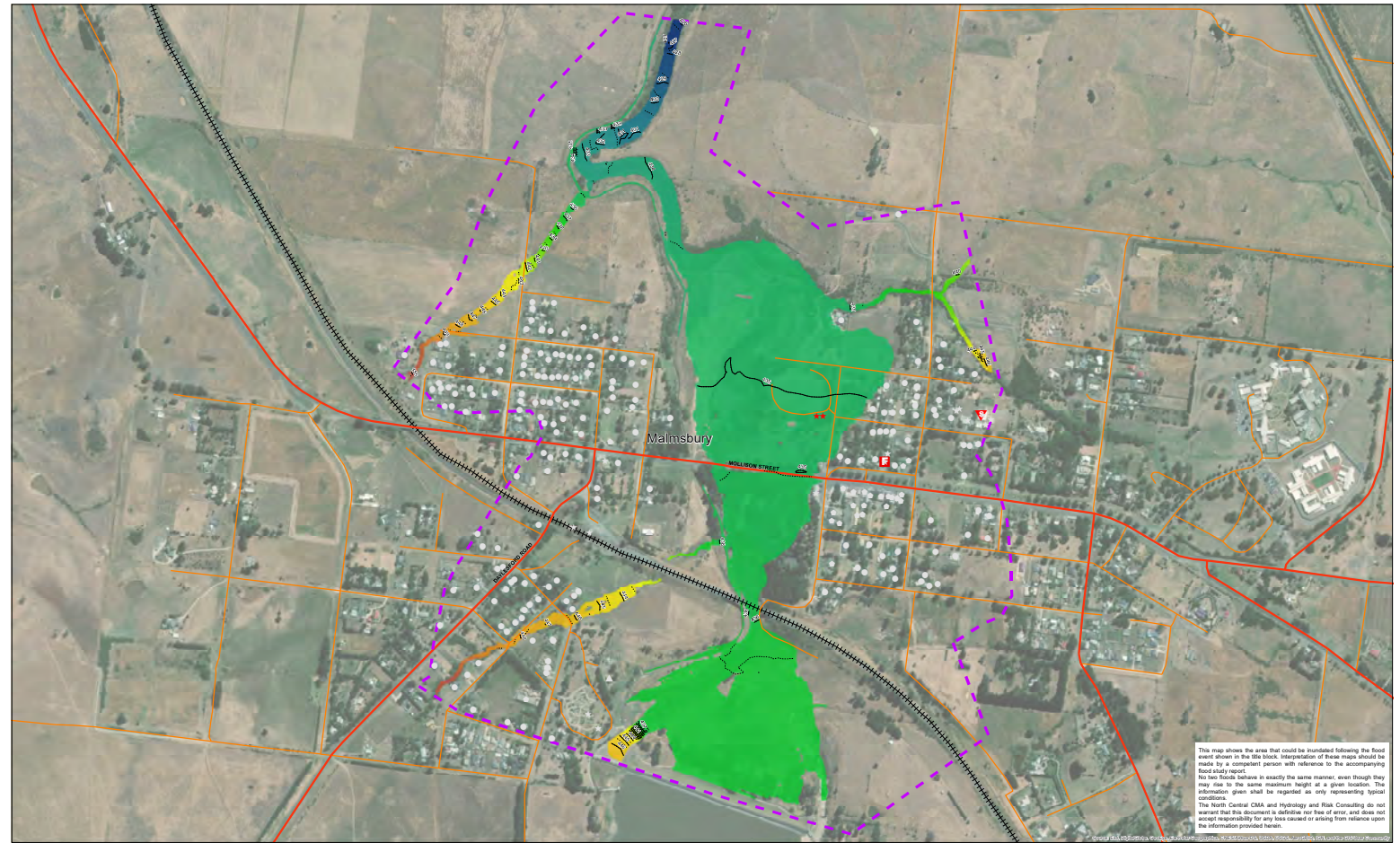
Horizontal Datum: GDA 1994

Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500

Date: 25/02/2020

Map No.: 15 - 100 - 2



Data Location: S:\3_Projects\NCC000025_Technical3_Mapping\NCC000025_InundationMapping_Details\mappages_HumanMGAS5.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygon: Navigable, PSMA Australia

Legend

- CFAMFB Fire Station
- Police Station
- Hospital
- School/College
- Nursing Home/Aged Care
- Caravan Park
- Main Road
- Tertiary Road
- Railway Line
- Flood Model Extent
- Contour (1m)
- Contour (0.5m)

Building Classification

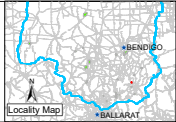
- Residential
- Commercial
- Industrial
- Public

Building Inundation

- not inundated
- inundated (without floor level survey)
- below floor level (with floor level survey)
- above floor level (with floor level survey)

Max WSE (mAHD) Malmesbury

Value	High	Low
454	427	

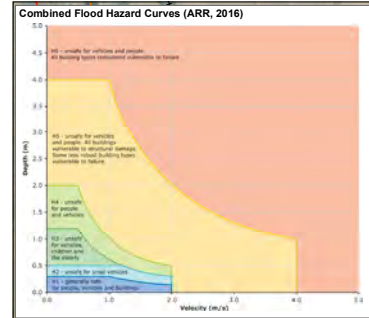


Drawn: A. SHEN	Project Director: D. STEPHENS
Checked: T. CRAIG	
Project Manager: A. NORTHFIELD	
Project No.: NCC00002	
North Central CMA Project Manager: N. TRELOAR	

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT
MAXIMUM WATER LEVEL (mAHD)
Malmesbury - 1% AEP Flood Event

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

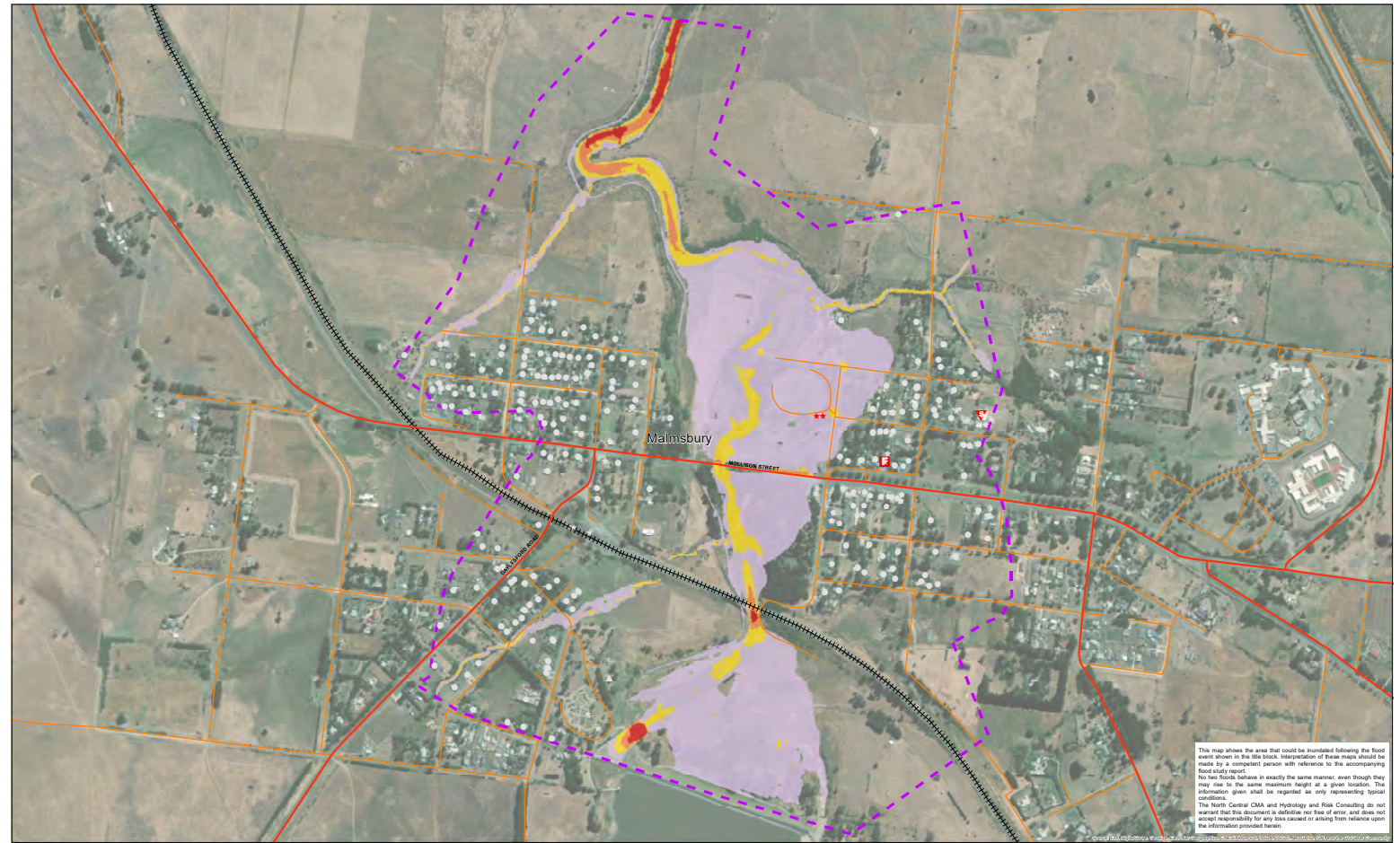
Scale: 1:4,500
Date: 25/02/2020
Map No.: 15 - 100 - 3



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
No liability is accepted by the North Central CMA and Hydrology and Risk Consulting for any loss or damage caused or arising from reliance upon the information provided herein.

Data Location: S:\3_Projects\NCC000025_Technical3_Mapping\NCC000025_InundationMapping_Details\Inundation_HazardMap\GASS.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygon: Navigable, P260A, Australia.

Legend CFMFB Fire Station Police Station Hospital School/College Nursing Home/Aged Care Caravan Park Main Road Tertiary Road Railway Line Flood Model Extent	Building Classification Residential Commercial Industrial Public Building Inundation not inundated inundated (without floor level survey) below floor level (with floor level survey) above floor level (with floor level survey)	Locality Map BENDIGO BALLARAT	<table><tr><td>Drawn: A. SHEN</td><td>Project Director: D. STEPHENS</td></tr><tr><td>Checked: T. CRAIG</td><td></td></tr><tr><td>Project Manager: A. NORTHFIELD</td><td></td></tr><tr><td>Project No.: NCC00002</td><td></td></tr><tr><td>North Central CMA Project Manager: N. TRELOAR</td><td></td></tr></table>	Drawn: A. SHEN	Project Director: D. STEPHENS	Checked: T. CRAIG		Project Manager: A. NORTHFIELD		Project No.: NCC00002		North Central CMA Project Manager: N. TRELOAR		NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT MAXIMUM HAZARD Malmesbury - 1% AEP Flood Event 0 200 400 Meters N Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 55	<table><tr><td>Scale: 1:4,500 when printed @ A1</td><td>Date: 25/02/2020</td><td>Map No.: 15 - 100 - 4</td></tr><tr><td></td><td></td><td></td></tr></table>	Scale: 1:4,500 when printed @ A1	Date: 25/02/2020	Map No.: 15 - 100 - 4			
Drawn: A. SHEN	Project Director: D. STEPHENS																				
Checked: T. CRAIG																					
Project Manager: A. NORTHFIELD																					
Project No.: NCC00002																					
North Central CMA Project Manager: N. TRELOAR																					
Scale: 1:4,500 when printed @ A1	Date: 25/02/2020	Map No.: 15 - 100 - 4																			



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
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Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Datamaps\pages_Vmax\MGAS5.mxd
Roads Layer: Vmax; Imagery: ESRI; Geocache Polygon: Navigable, PSMA Australia

Legend

CFAMFB Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

Residential

Commercial

Industrial

Public

Building Inundation

not inundated

inundated (without floor level survey)

below floor level (with floor level survey)

above floor level (with floor level survey)

Max Velocity (m/s)

< 1

1 - 2

2 - 3

> 3

Locality Map

Team

Drawn: A. SHEN

Project Director: D. STEPHENS

Checked: T. CRAIG

Project Manager: A. NORTHFIELD

Project No.: NCC00002

North Central CMA Project Manager: N. TRELOAR

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT

MAXIMUM VELOCITY (m/s)

Malmesbury - 1% AEP Flood Event

0

200

400

Meters

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500
when printed @ A1

Date: 25/02/2020

Map No.: 15 - 100 - 5



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
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Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Details\InundationPages_VaDmax\MGASS.mxd
Roads Layer: Vmap; Imagery: ESRI; Geoscape Polygons: Navigable, PSMA Australia.

Legend

CFAMFB Fire Station

Police Station

Hospital

School/College

Nursing Home/Aged Care

Caravan Park

Main Road

Tertiary Road

Railway Line

Flood Model Extent

Building Classification

Residential

Commercial

Industrial

Public

Building Inundation

not inundated

inundated (without floor level survey)

below floor level (with floor level survey)

above floor level (with floor level survey)

Max V x D (m²/s)

0.4 - 0.8

0.8 - 1.2

> 1.2 symbol"/> > 1.2

Locality Map

Drawn: A. SHEN

Checked: T. CRAIG

Project Manager: A. NORTHFIELD

Project No.: NCC00002

North Central CMA Project Manager: N. TRELOAR

Project Director: D. STEPHENS

Project Manager: A. NORTHFIELD

Project No.: NCC00002

North Central CMA Project Manager: N. TRELOAR

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT

MAXIMUM V x D (m²/s)

Malmesbury - 0.5% AEP Flood Event

0

200

400

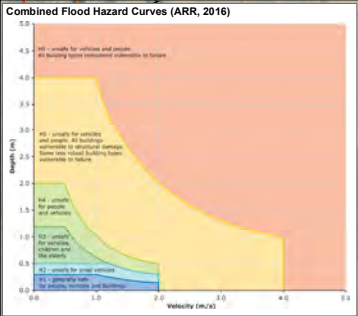
Meters

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500
when printed @ A1

Date: 25/02/2020

Map No.: 15 - 200 - 2



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
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Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Details\Inundation_HazardMap\GASS.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygon: Navigable; PSMA Australia

Legend

- CFMFB Fire Station
- Police Station
- Hospital
- School/College
- Nursing Home/Aged Care
- Caravan Park
- Main Road
- Tertiary Road
- Railway Line
- Flood Model Extent

Building Classification

- Residential
- Commercial
- Industrial
- Public

Building Inundation

- not inundated
- inundated (without floor level survey)
- below floor level (with floor level survey)
- above floor level (with floor level survey)

Locality Map

Drawn: A. SHEN
Checked: T. CRAIG
Project Manager: A. NORTHFIELD
Project No.: NCC00002
North Central CMA
Project Manager: N. TRELOAR

Project Director: D. STEPHENS

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT
MAXIMUM HAZARD

Malmesbury - 0.5% AEP Flood Event

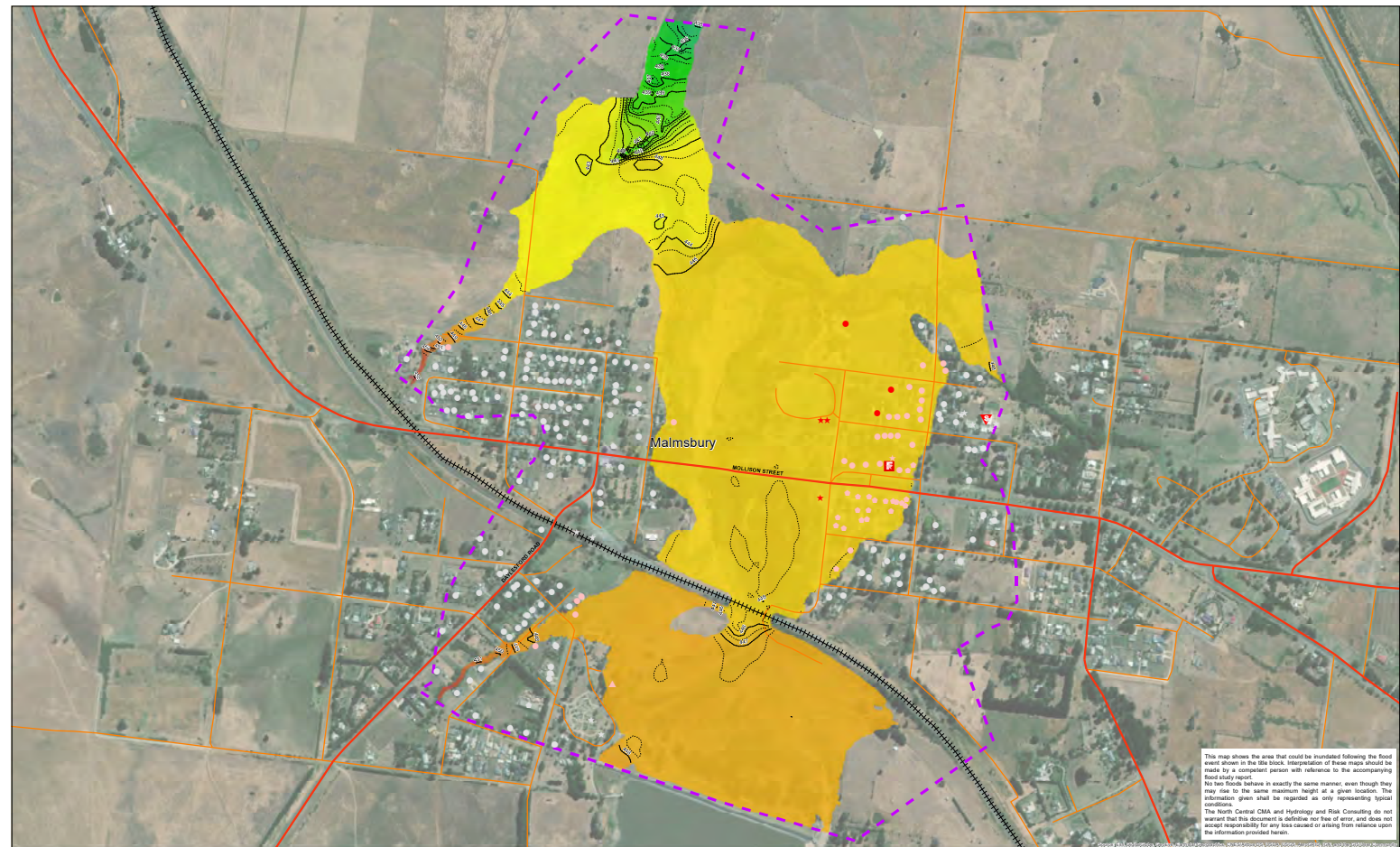
0 200 400
Meters

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500
when printed @ A1

Date: 25/02/2020

Map No.: 15 - 200 - 4



This map shows the area that could be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.
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The North Central CMA and Hydrology and Risk Consulting do not warrant that this document is definitive nor free of error, and does not accept responsibility for any loss caused or arising from reliance upon the information provided herein.

Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Details\mappages_Hima\MG455.mxd
Roads Layer: Vmap; Imagery: ESRI; Geocache Polygons: Navigable, PSMA Australia.

Legend

- CFAMFB Fire Station
- Police Station
- Hospital
- School/College
- Nursing Home/Aged Care
- Caravan Park
- Main Road
- Tertiary Road
- Railway Line
- Flood Model Extent
- Contour (1m)
- Contour (0.5m)

Building Classification

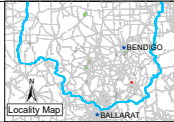
- Residential
- Commercial
- Industrial
- Public

Building Inundation

- not inundated
- inundated (without floor level survey)
- below floor level (with floor level survey)
- above floor level (with floor level survey)

Max WSE (mAHD) Malmsbury

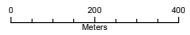
Value	High	454
Low	427	



Drawn: A. SHEN	Project Director: D. STEPHENS
Checked: T. CRAIG	
Project Manager: A. NORTHFIELD	
Project No.: NCC00002	
North Central CMA Project Manager: N. TRELOAR	

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT
MAXIMUM WATER LEVEL (mAHD)

Malmsbury - PMF Event



Scale: 1:4,500
Date: 25/02/2020
Map No.: 15 - PMF - 3



This map shows the area that should be inundated following the flood event shown in the title block. Interpretation of these maps should be made by a competent person with reference to the accompanying flood study report.

No two floods behave in exactly the same manner, even though they may rise to the same maximum height at a given location. The information given shall be regarded as only representing typical conditions.

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Data Location: S:\3_Projects\NCC00002\6_Technical\3_Mapping\NCC00002_InundationMapping_Data\drivenpages_Hazards\MGAS5

Legend

- CFAMFB Fire Station
- Police Station
- Hospital
- School/College
- Nursing Home/Aged Care
- Caravan Park
- Main Road
- Tertiary Road
- Railway Line
- Flood Model Extent

Building Classification

- Residential
- Commercial
- Industrial
- Public

Building Inundation

- not inundated
- inundated (without floor level survey)
- below floor level (with floor level survey)
- above floor level (with floor level survey)

Locality Map

Project Details

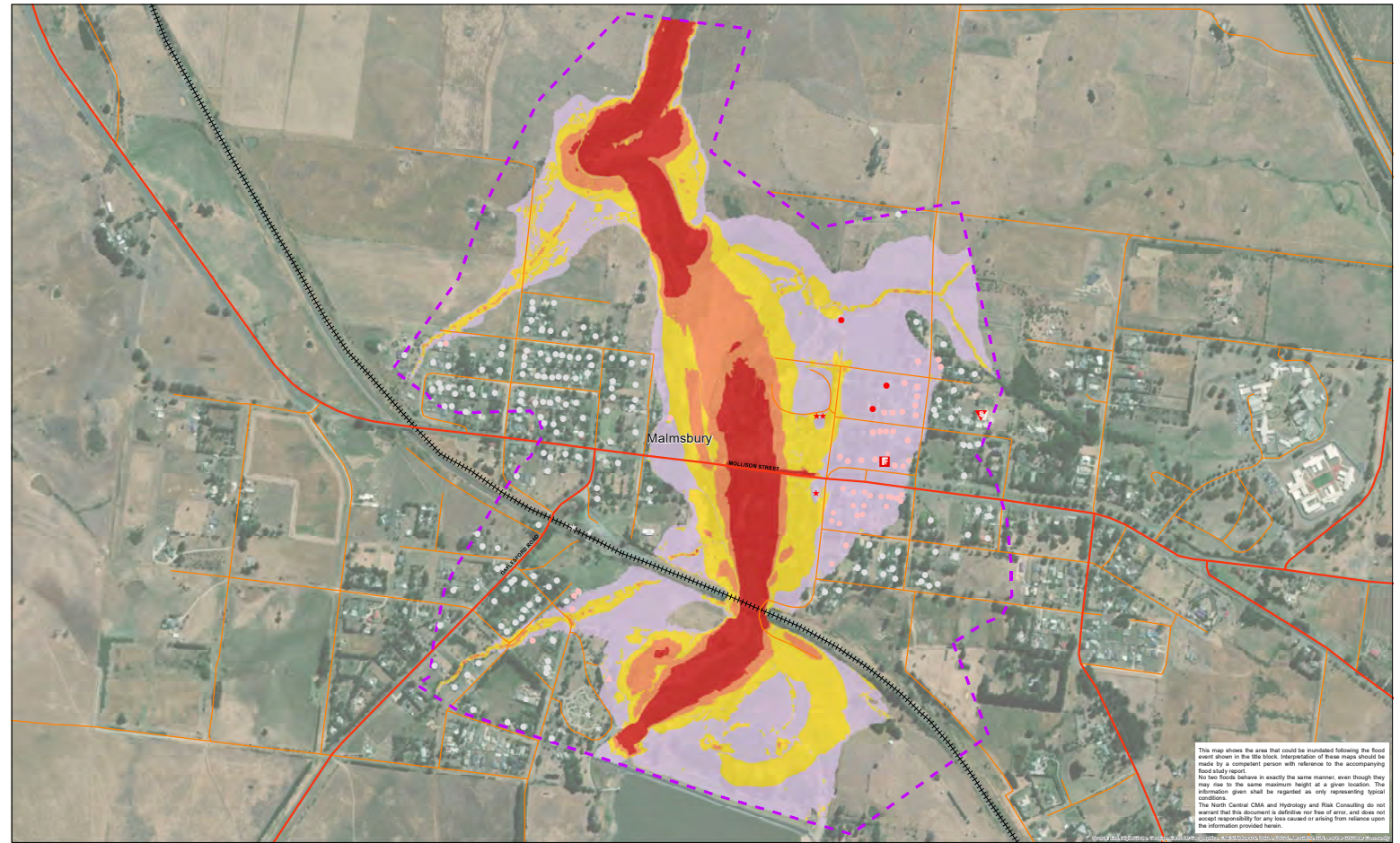
Drawn: A. SHEN
Project Director: D. STEPHENS
Checked: T. CRAIG
Project Manager: A. NORTHFIELD
Project No.: NCC00002
North Central CMA
Project Manager: N. TRELOAR

**NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT
MAXIMUM HAZARD**

Malsbury - PMF Event

Scale: 1:4,500
Date: 25/02/2020
Map No.: 15 - PMF - 4

Horizontal Datum: GDA 1984
Grid: GDA 1984 MGA Zone 55



Data Location: S:\3_Projects\NCC000025_Technical\3_Mapping\NCC000025_InundationMapping_Datamaps\pages_Vmax\MGAS5.mxd
Roads Layer: Vmax; Imagery: ESRI; Geocache Polygon: Navigable, PMMA Australia.

Legend		Building Classification		Max Velocity (m/s)		Building Inundation	
	CFAMFB Fire Station		Main Road		Residential		not inundated
	Police Station		Tertiary Road		Commercial		inundated (without floor level survey)
	Hospital		Railway Line		Industrial		below floor level (with floor level survey)
	School/College		Flood Model Extent		Public		above floor level (with floor level survey)
	Nursing Home/Aged Care						
	Caravan Park						

Drawn: A. SHEN	Project Director: D. STEPHENS
Checked: T. CRAIG	
Project Manager: A. NORTHFIELD	
Project No.: NCC00002	
North Central CMA Project Manager: N. TRELOAR	

NORTH CENTRAL CMA RAPID FLOOD RISK ASSESSMENT
MAXIMUM VELOCITY (m/s)

Malmbsbury - PMF Event

0 200 400
Meters

N

Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

Scale: 1:4,500 when printed @ A1	Date: 25/02/2020	Map No.: 15 - PMF - 5