

TECHNICAL PAPER

04

Hydrology and flooding impact assessment

Appendix A Existing conditions flood maps

NARRABRI TO NORTH STAR—PHASE 2 ENVIRONMENTAL IMPACT STATEMENT



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04

Hydrology and flooding impact assessment

Appendix A Existing conditions flood maps

Appendix A1 Depth and level maps

NARRABRI TO NORTH STAR—PHASE 2 ENVIRONMENTAL IMPACT STATEMENT



Appendix A – Existing conditions flood maps

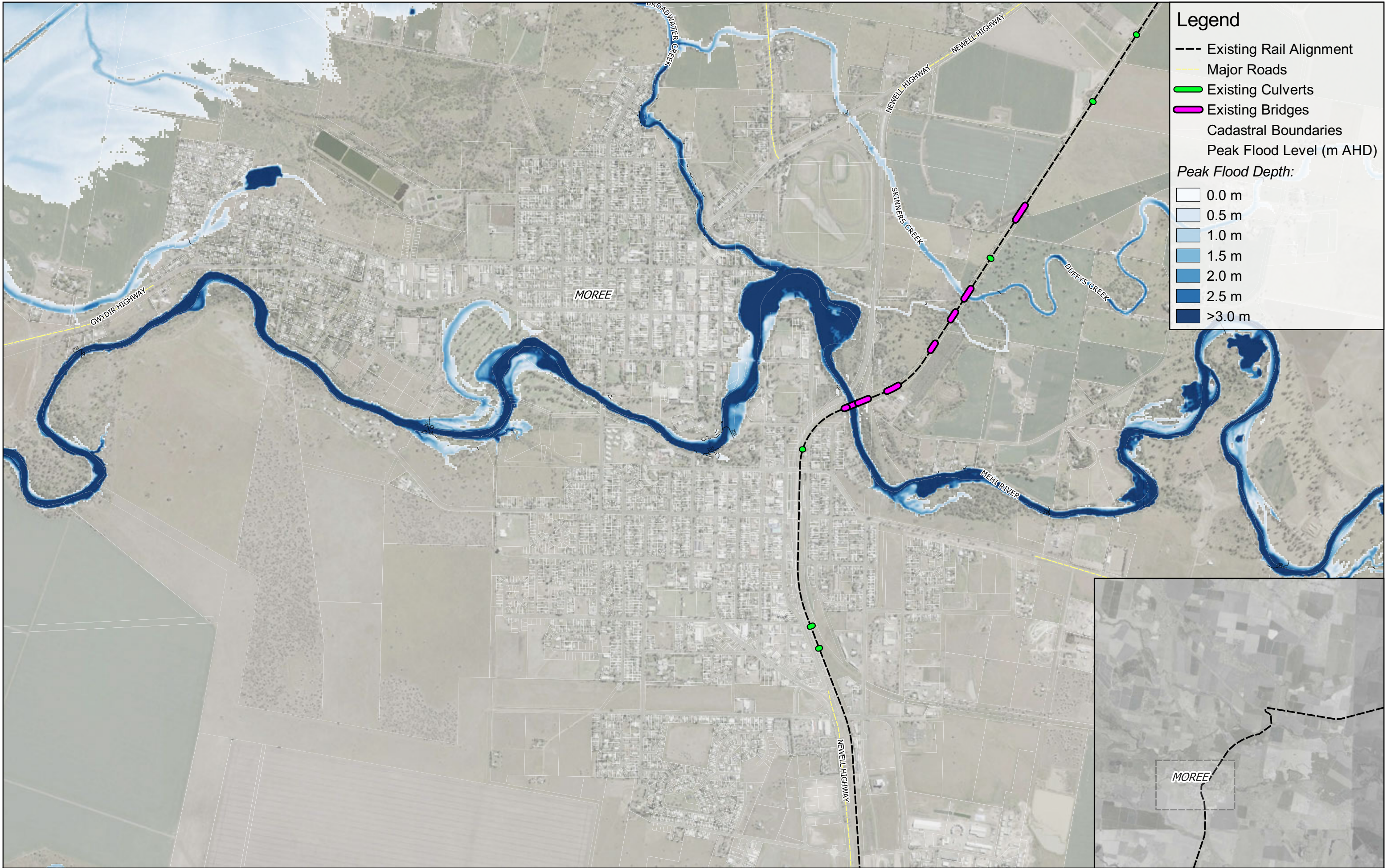
Map list

MAP SET ID	MAP CONTENTS
EX_DEP_020	Flood Depth and Level – Existing Conditions, 20% AEP Event
EX_DEP_010	Flood Depth and Level – Existing Conditions, 10% AEP Event
EX_DEP_005	Flood Depth and Level – Existing Conditions, 5% AEP Event
EX_DEP_002	Flood Depth and Level – Existing Conditions, 2% AEP Event
EX_DEP_001	Flood Depth and Level – Existing Conditions, 1% AEP Event
EX_DEP_001CC	Flood Depth and Level – Existing Conditions, 1% AEP Event with Climate Change
EX_DEP_PMF	Flood Depth and Level – Existing Conditions, PMF Event
EX_VEL_020	Flood Velocity – Existing Conditions, 20% AEP Event
EX_VEL_010	Flood Velocity – Existing Conditions, 10% AEP Event
EX_VEL_005	Flood Velocity – Existing Conditions, 5% AEP Event
EX_VEL_002	Flood Velocity – Existing Conditions, 2% AEP Event
EX_VEL_001	Flood Velocity – Existing Conditions, 1% AEP Event
EX_VEL_001CC	Flood Velocity – Existing Conditions, 1% AEP Event with Climate Change
EX_VEL_PMF	Flood Velocity – Existing Conditions, PMF Event
EX_DUR_020	Flood Duration – Existing Conditions, 20% AEP Event
EX_DUR_010	Flood Duration – Existing Conditions, 10% AEP Event
EX_DUR_005	Flood Duration – Existing Conditions, 5% AEP Event
EX_DUR_002	Flood Duration – Existing Conditions, 2% AEP Event
EX_DUR_001	Flood Duration – Existing Conditions, 1% AEP Event
EX_DUR_001CC	Flood Duration – Existing Conditions, 1% AEP Event with Climate Change
EX_DUR_PMF	Flood Duration – Existing Conditions, PMF Event
EX_HAZ_020	Flood Hazard Category – Existing Conditions, 20% AEP Event
EX_HAZ_010	Flood Hazard Category – Existing Conditions, 10% AEP Event
EX_HAZ_005	Flood Hazard Category – Existing Conditions, 5% AEP Event
EX_HAZ_002	Flood Hazard Category – Existing Conditions, 2% AEP Event
EX_HAZ_001	Flood Hazard Category – Existing Conditions, 1% AEP Event
EX_HAZ_001CC	Flood Hazard Category – Existing Conditions, 1% AEP Event with Climate Change
EX_HAZ_PMF	Flood Hazard Category – Existing Conditions, PMF Event

A.1 Depth and level

Map list

MAP SET ID	MAP CONTENTS
EX_DEP_020	Flood Depth and Level – Existing Conditions, 20% AEP Event
EX_DEP_010	Flood Depth and Level – Existing Conditions, 10% AEP Event
EX_DEP_005	Flood Depth and Level – Existing Conditions, 5% AEP Event
EX_DEP_002	Flood Depth and Level – Existing Conditions, 2% AEP Event
EX_DEP_001	Flood Depth and Level – Existing Conditions, 1% AEP Event
EX_DEP_001CC	Flood Depth and Level – Existing Conditions, 1% AEP Event with Climate Change
EX_DEP_PMF	Flood Depth and Level – Existing Conditions, PMF Event



Legend

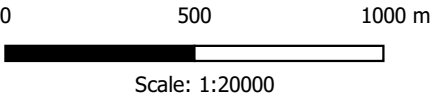
- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- ▭ Cadastral Boundaries
- ▭ Peak Flood Level (m AHD)

Peak Flood Depth:

- 0.0 m
- 0.5 m
- 1.0 m
- 1.5 m
- 2.0 m
- 2.5 m
- >3.0 m

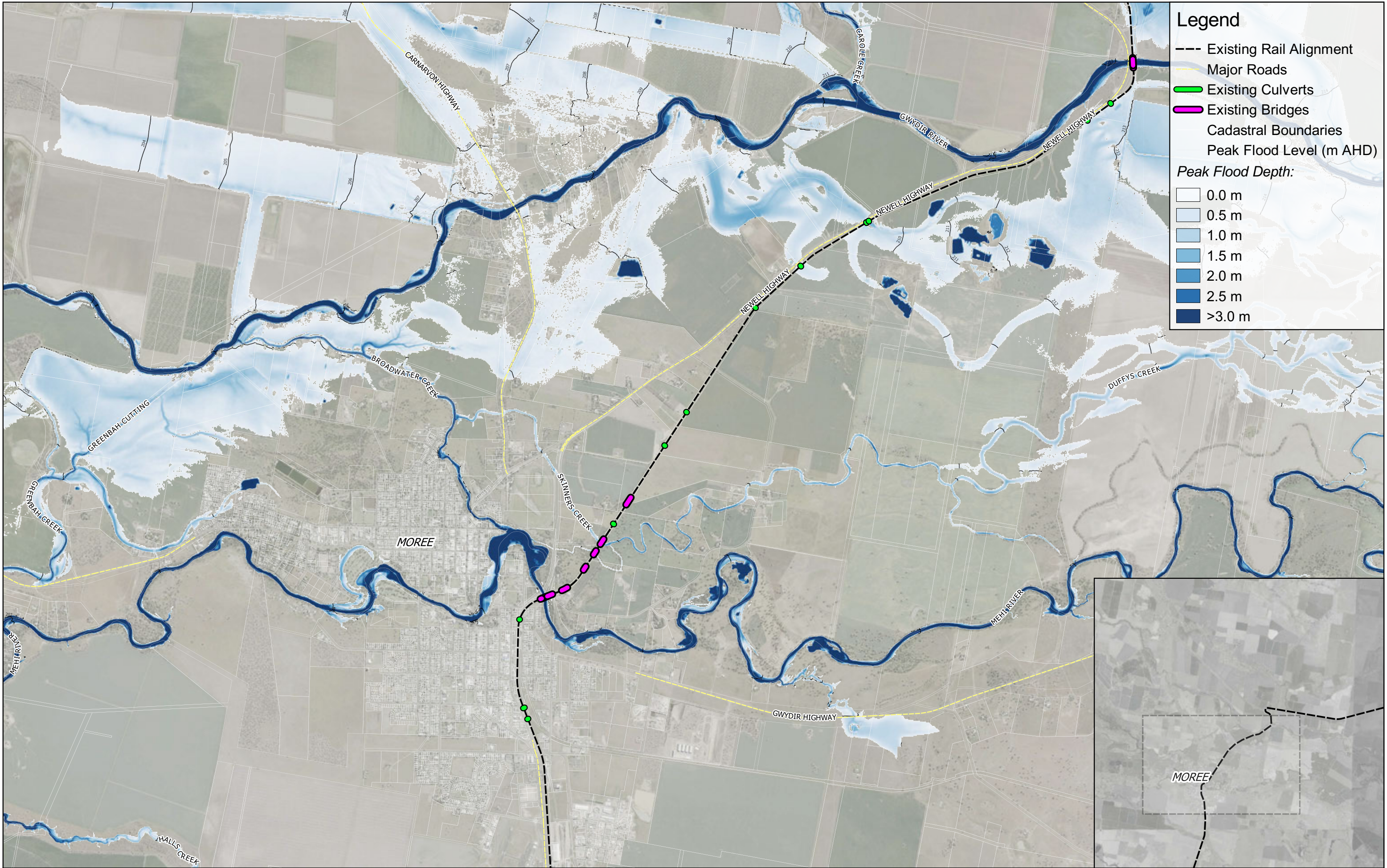


Prepared for: ARTC
Coordinate system: GDA 1994 MGA Zone 55
Aerial Source: NSW Six Maps
Scale ratio correct when printed at A3



Stage: EIS
Version: C
Author: JS
Approved by: RL
Date: 28/03/2022

Inland Rail - Narrabri to North Star Phase 2
Peak Flood Depth and Level - Existing Conditions Scenario
Event: 20% AEP
Sheet 1
Map ID: EX_DEP_020_1



Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

0.0 m
0.5 m
1.0 m
1.5 m
2.0 m
2.5 m
>3.0 m



Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

- 0.0 m
- 0.5 m
- 1.0 m
- 1.5 m
- 2.0 m
- 2.5 m
- >3.0 m



Prepared for: ARTC
Coordinate system: GDA 1994 MGA Zone 55
Aerial Source: NSW Six Maps
Scale ratio correct when printed at A3

0 500 1000 1500 2000 m

Scale: 1:40000



Stage: EIS
Version: C
Author: JS
Approved by: RL
Date: 28/03/2022

Inland Rail - Narrabri to North Star Phase 2
Peak Flood Depth and Level - Existing Conditions Scenario
Event: 20% AEP
Sheet 3
Map ID: EX_DEP_020_3

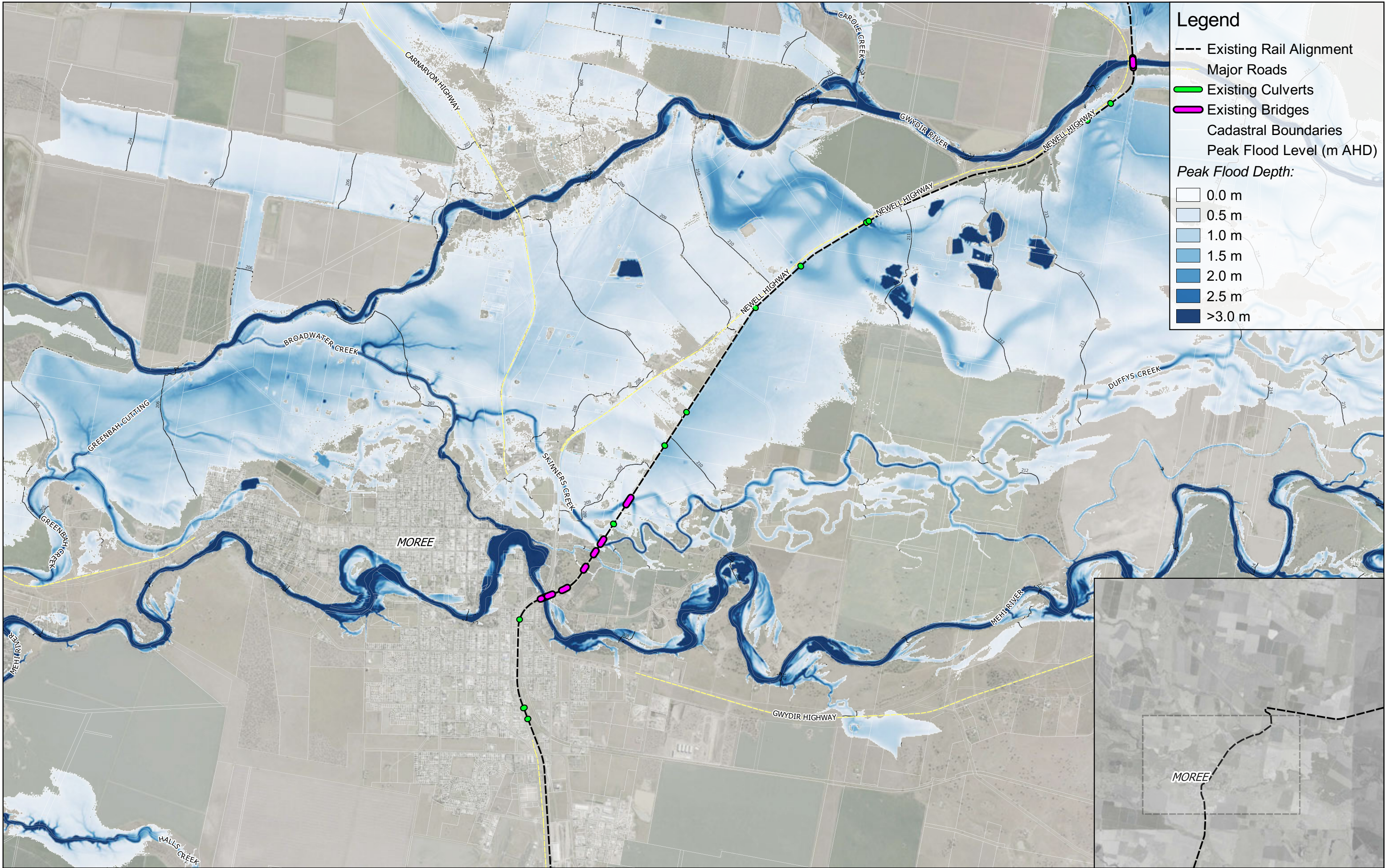


Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

0.0 m
0.5 m
1.0 m
1.5 m
2.0 m
2.5 m
>3.0 m

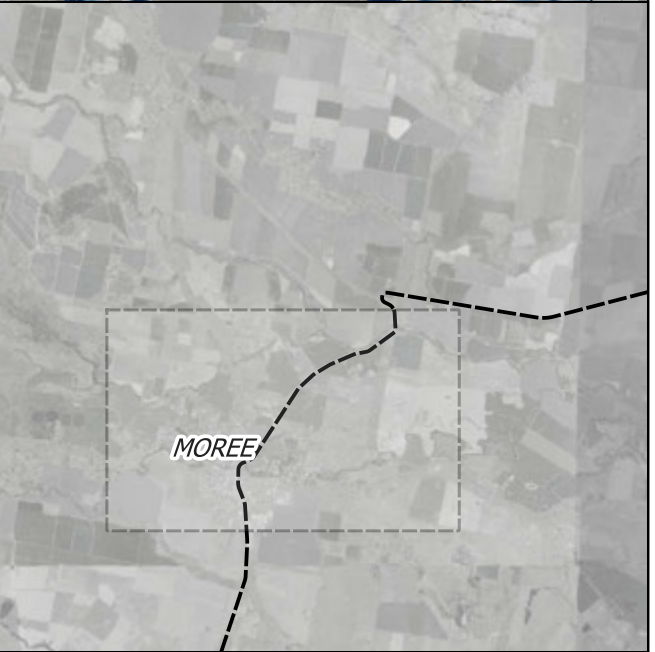


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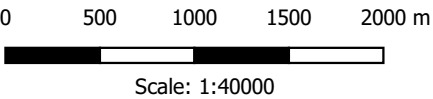
- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

- 0.0 m
- 0.5 m
- 1.0 m
- 1.5 m
- 2.0 m
- 2.5 m
- >3.0 m



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Stage: EIS
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Date: 28/03/2022

Inland Rail - Narrabri to North Star Phase 2
Peak Flood Depth and Level - Existing Conditions Scenario
Event: 10% AEP
Sheet 2
Map ID: EX_DEP_010_2



Legend

Existing Rail Alignment

Major Roads

Existing Culverts

Existing Bridges

Cadastral Boundaries

Peak Flood Level (m AHD)

Peak Flood Depth:

0.0 m

0.5 m

1.0 m

1.5 m

2.0 m

2.5 m

>3.0 m

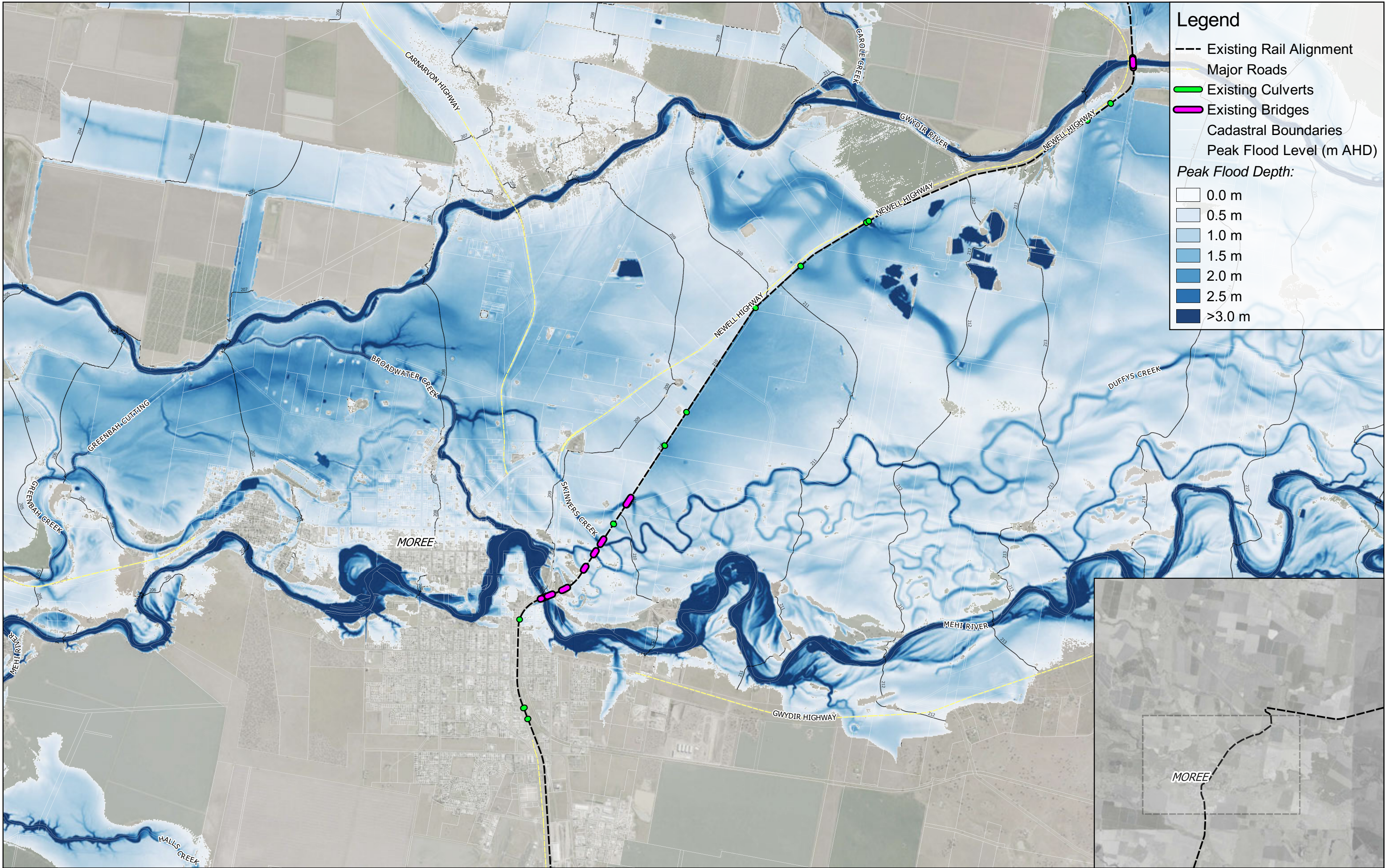


Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- ▭ Cadastral Boundaries
- ▭ Peak Flood Level (m AHD)

Peak Flood Depth:

- 0.0 m
- 0.5 m
- 1.0 m
- 1.5 m
- 2.0 m
- 2.5 m
- >3.0 m



Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

- 0.0 m
- 0.5 m
- 1.0 m
- 1.5 m
- 2.0 m
- 2.5 m
- >3.0 m



Legend

Existing Rail Alignment

Major Roads

Existing Culverts

Existing Bridges

Cadastral Boundaries

Peak Flood Level (m AHD)

Peak Flood Depth:

0.0 m

0.5 m

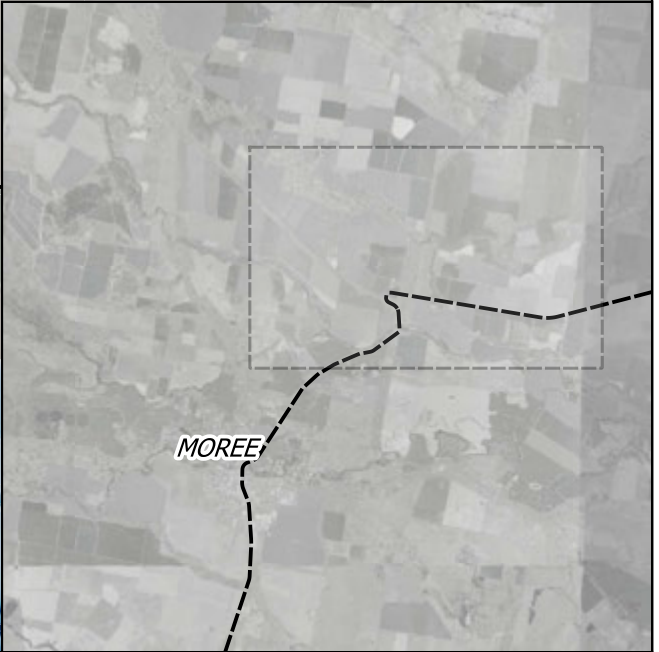
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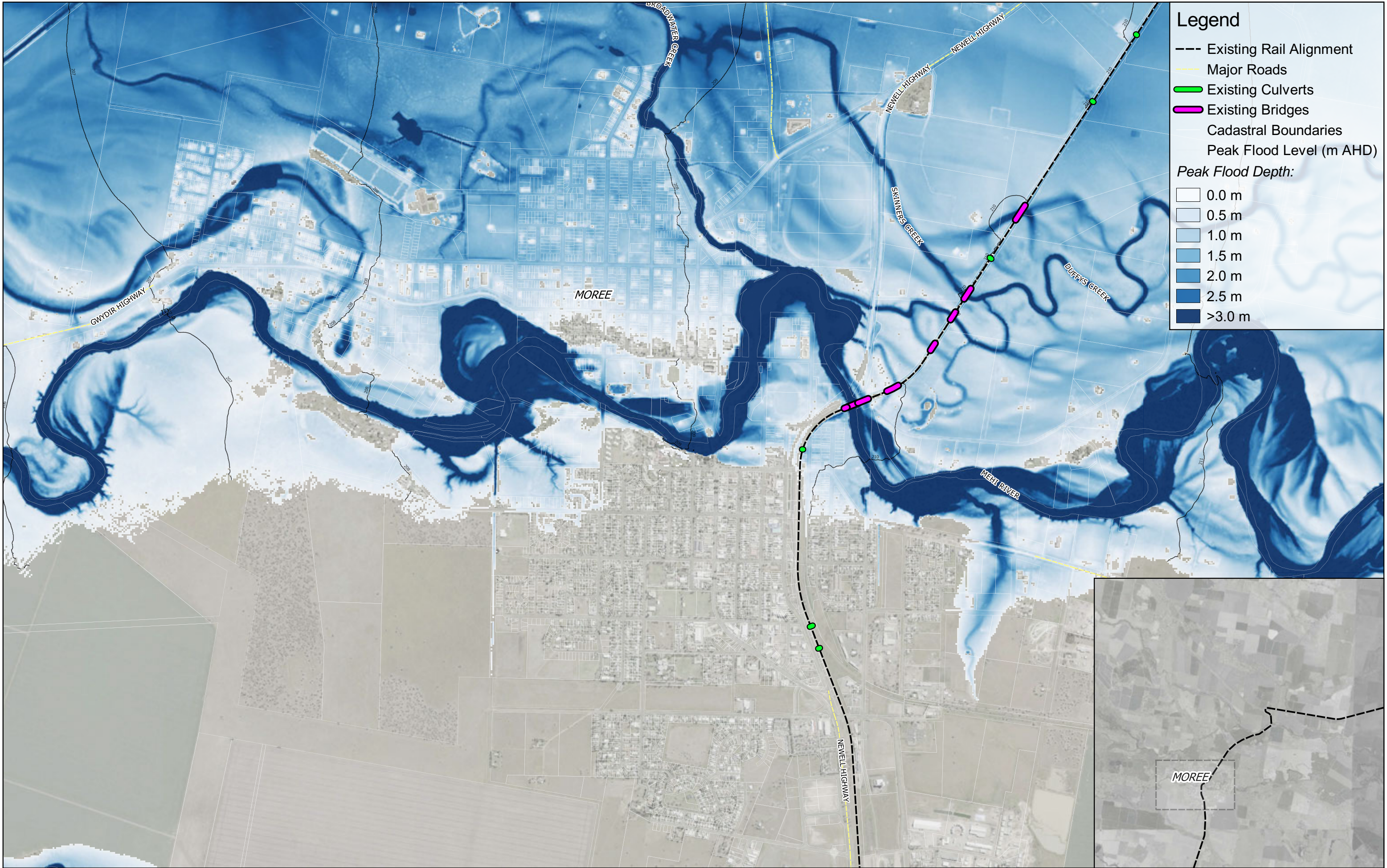
1.5 m

2.0 m

2.5 m

>3.0 m



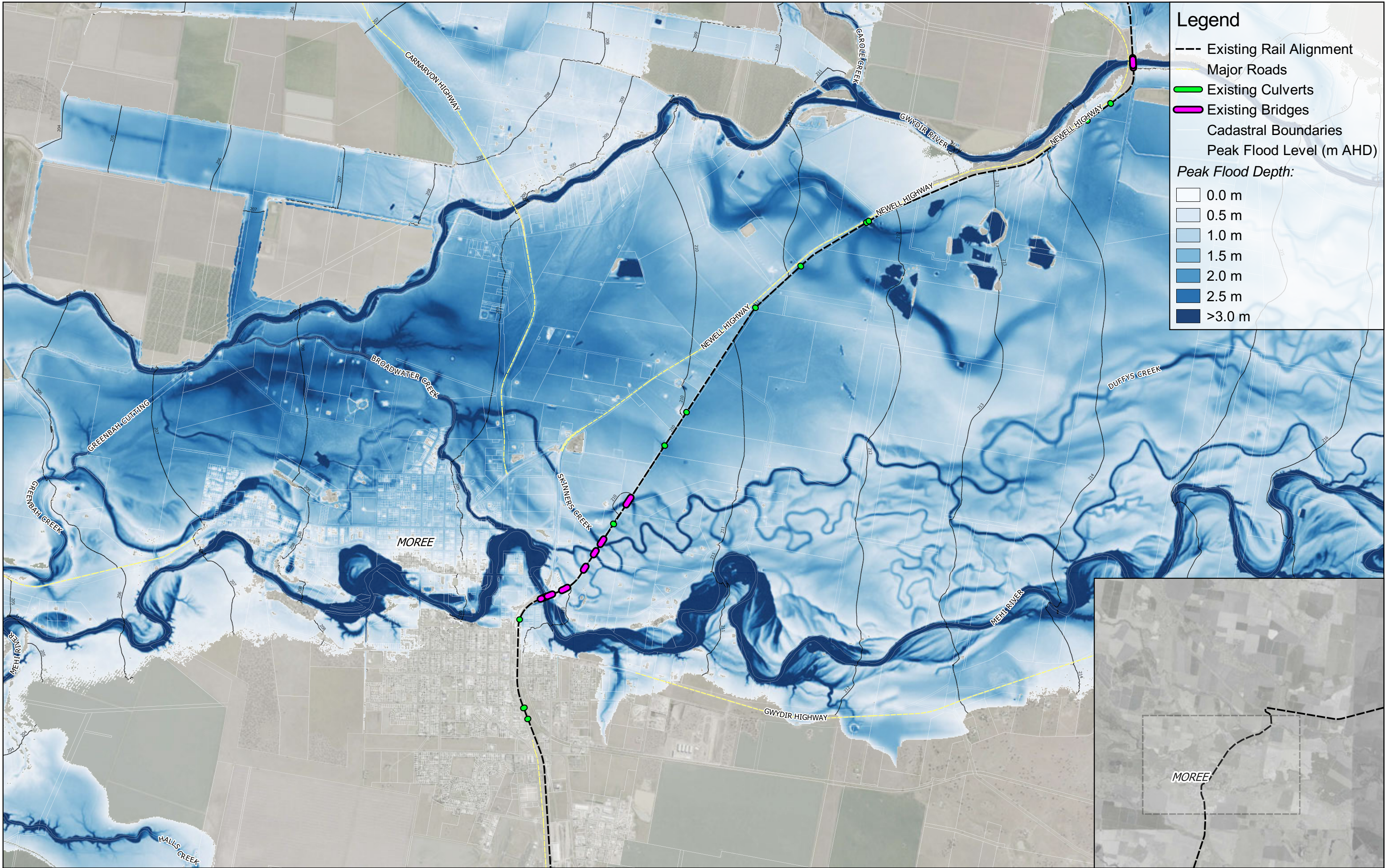


Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

- 0.0 m
- 0.5 m
- 1.0 m
- 1.5 m
- 2.0 m
- 2.5 m
- >3.0 m

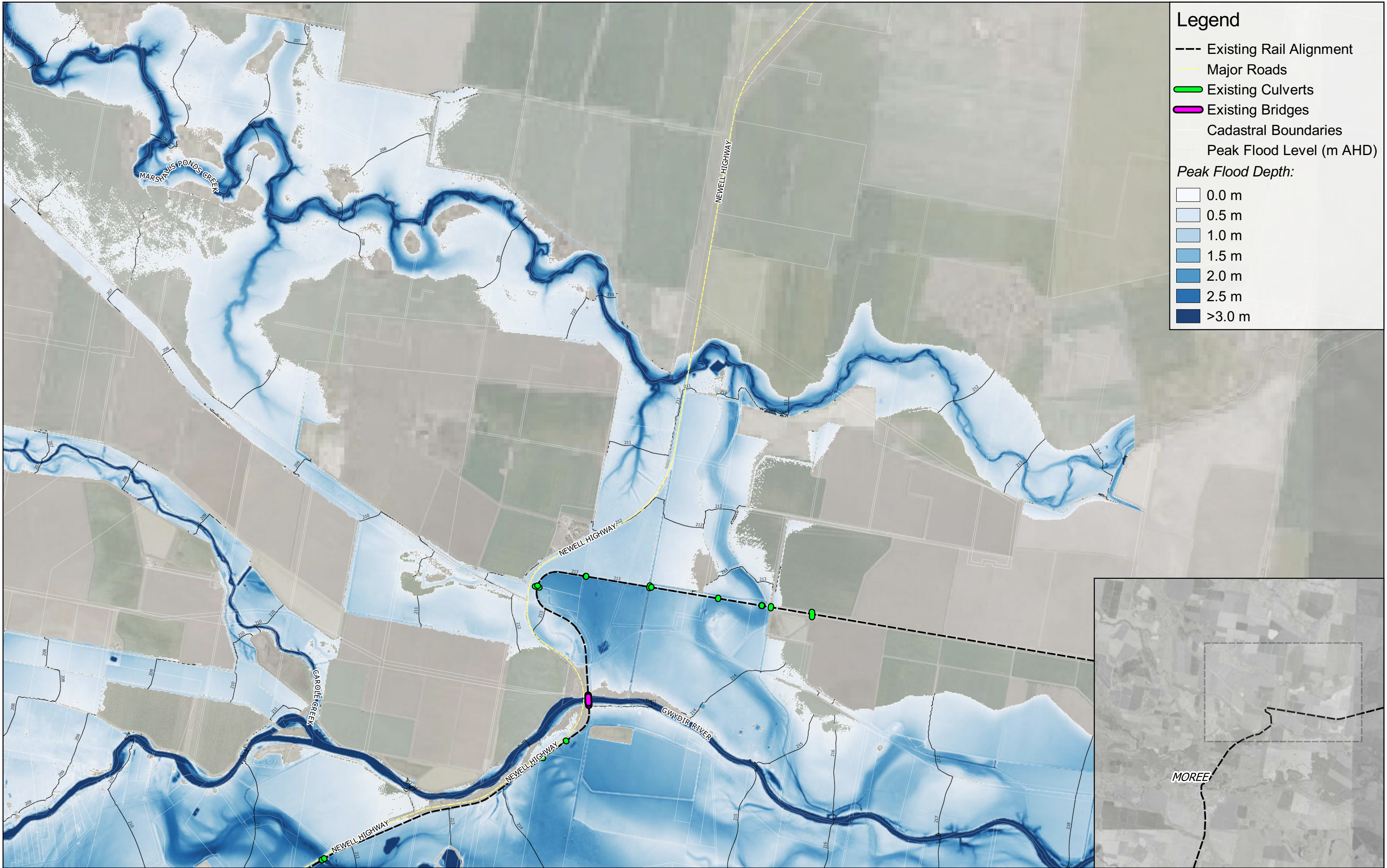


Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

0.0 m
0.5 m
1.0 m
1.5 m
2.0 m
2.5 m
>3.0 m

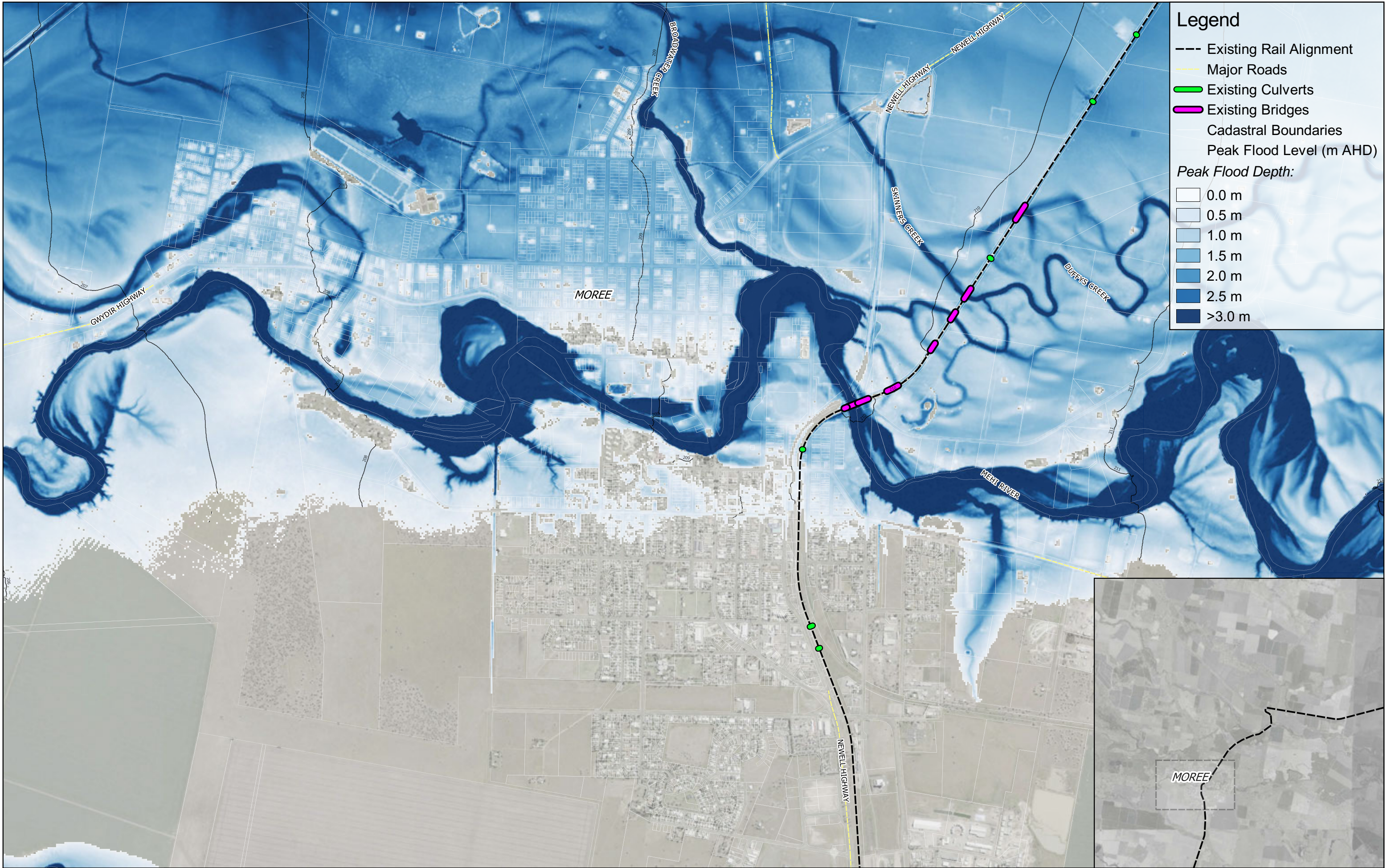


Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

- 0.0 m
- 0.5 m
- 1.0 m
- 1.5 m
- 2.0 m
- 2.5 m
- >3.0 m



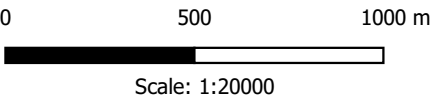
Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

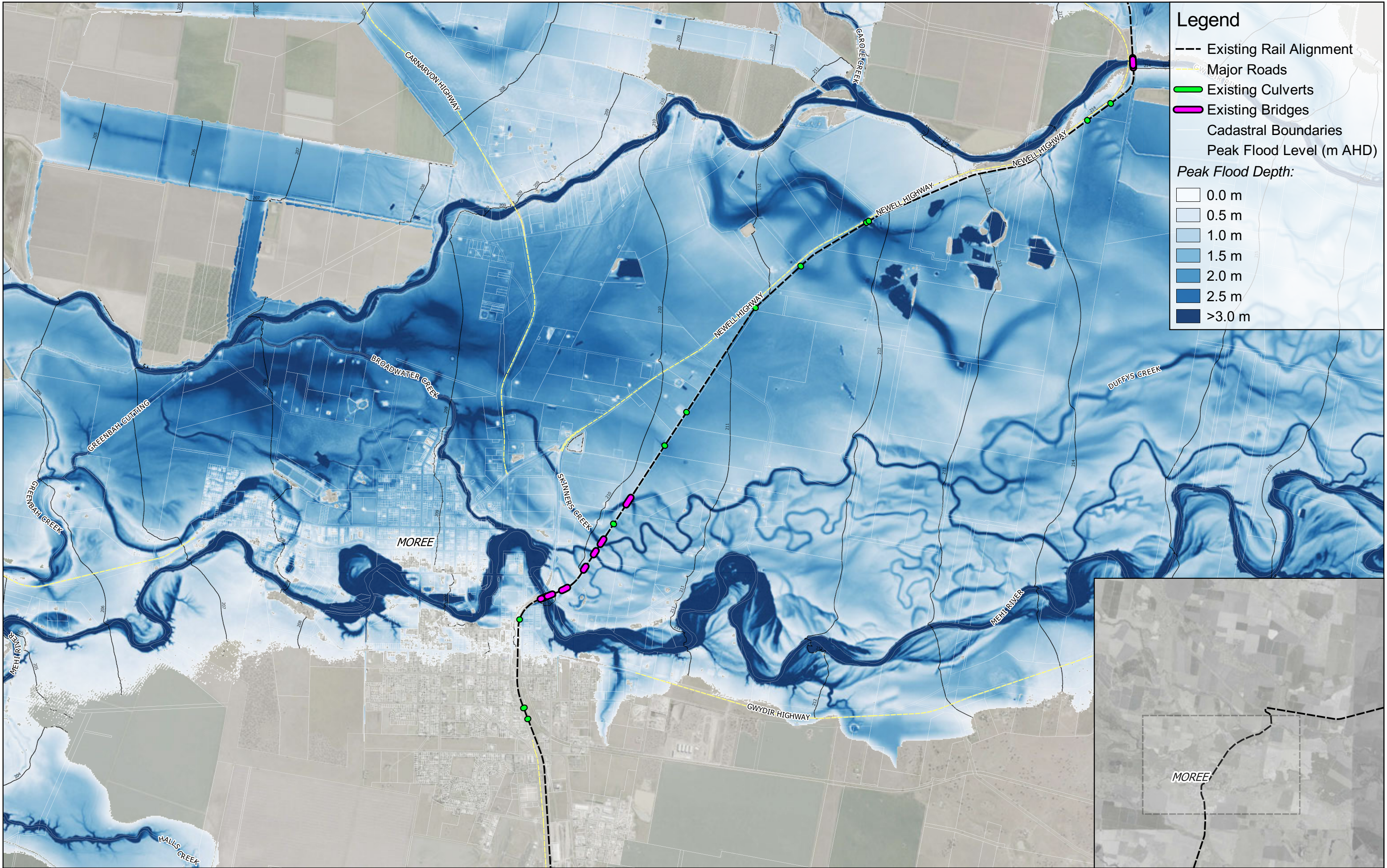
- 0.0 m
- 0.5 m
- 1.0 m
- 1.5 m
- 2.0 m
- 2.5 m
- >3.0 m

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Stage: EIS
Version: C
Author: JS
Approved by: RL
Date: 28/03/2022

Inland Rail - Narrabri to North Star Phase 2
Peak Flood Depth and Level - Existing Conditions Scenario
Event: 1% AEP
Sheet 1
Map ID: EX_DEP_001_1

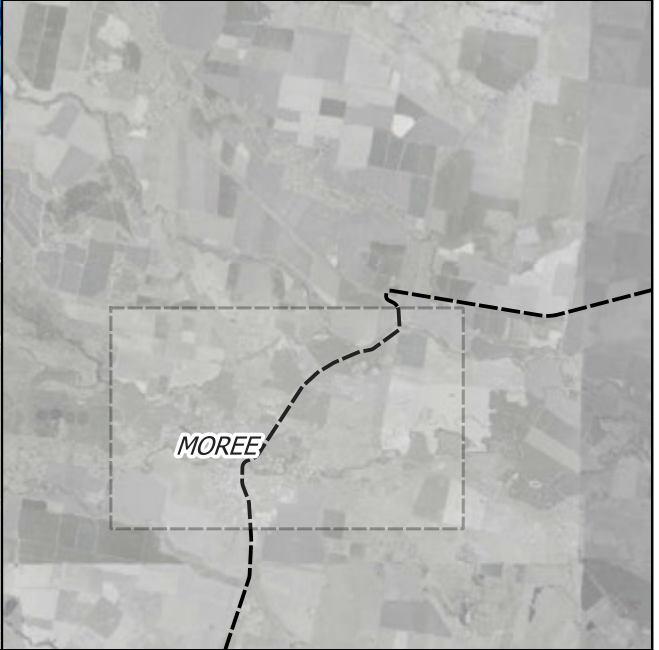


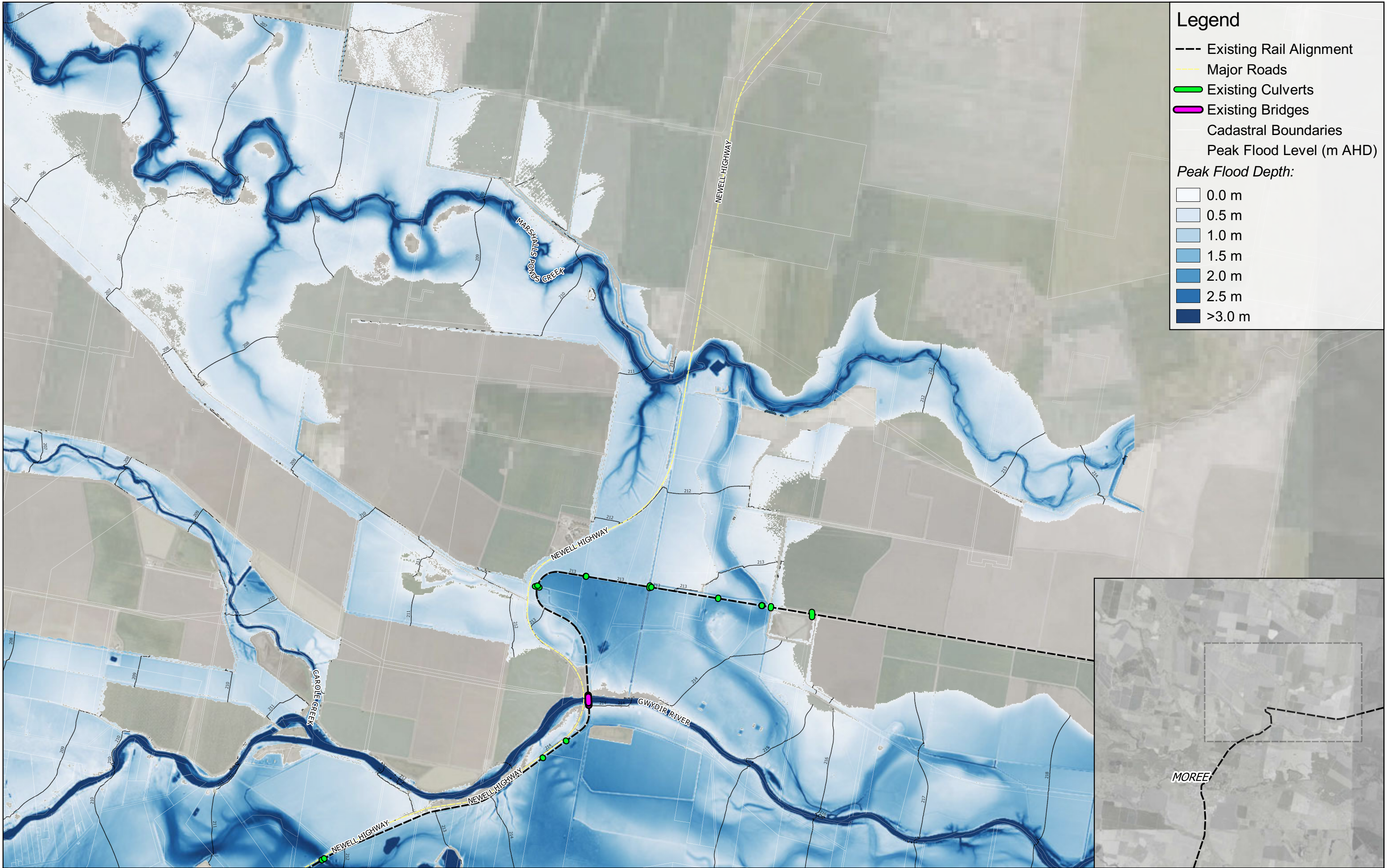
Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

0.0 m
0.5 m
1.0 m
1.5 m
2.0 m
2.5 m
>3.0 m





Legend

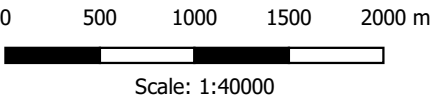
- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

- 0.0 m
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- 2.0 m
- 2.5 m
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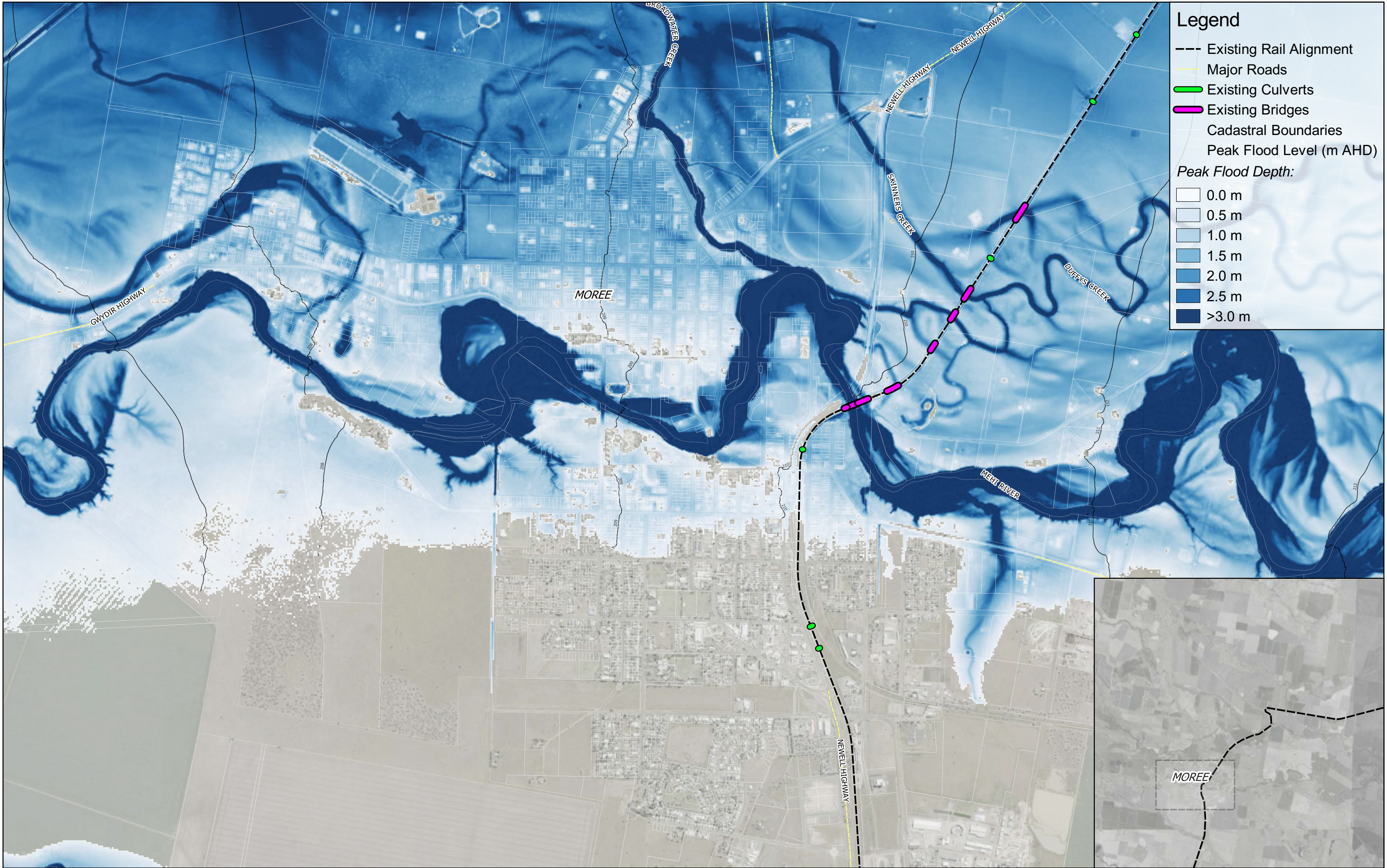


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Inland Rail - Narrabri to North Star Phase 2
Peak Flood Depth and Level - Existing Conditions Scenario
Event: 1% AEP
Sheet 3
Map ID: EX_DEP_001_3

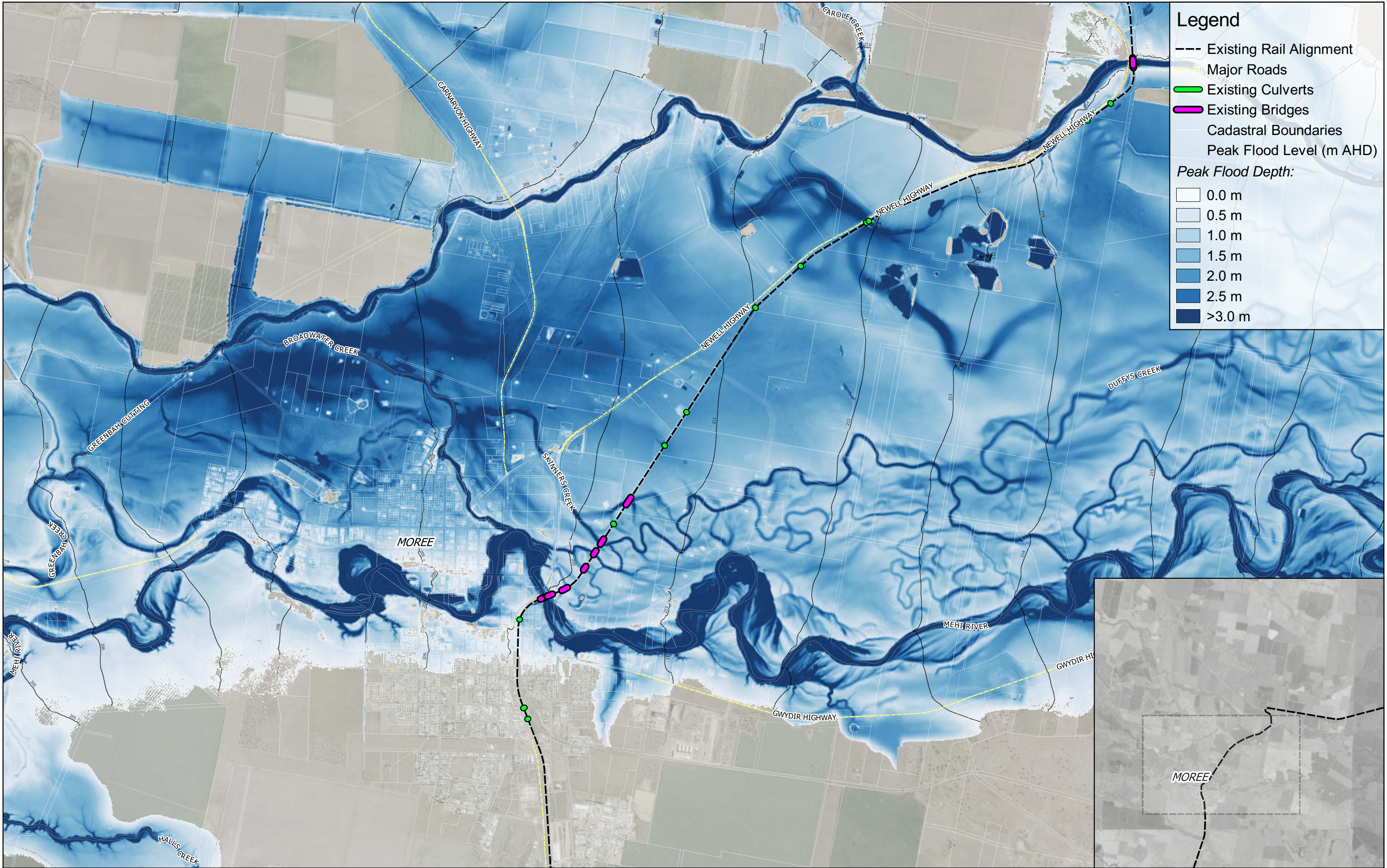


Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

- 0.0 m
- 0.5 m
- 1.0 m
- 1.5 m
- 2.0 m
- 2.5 m
- >3.0 m

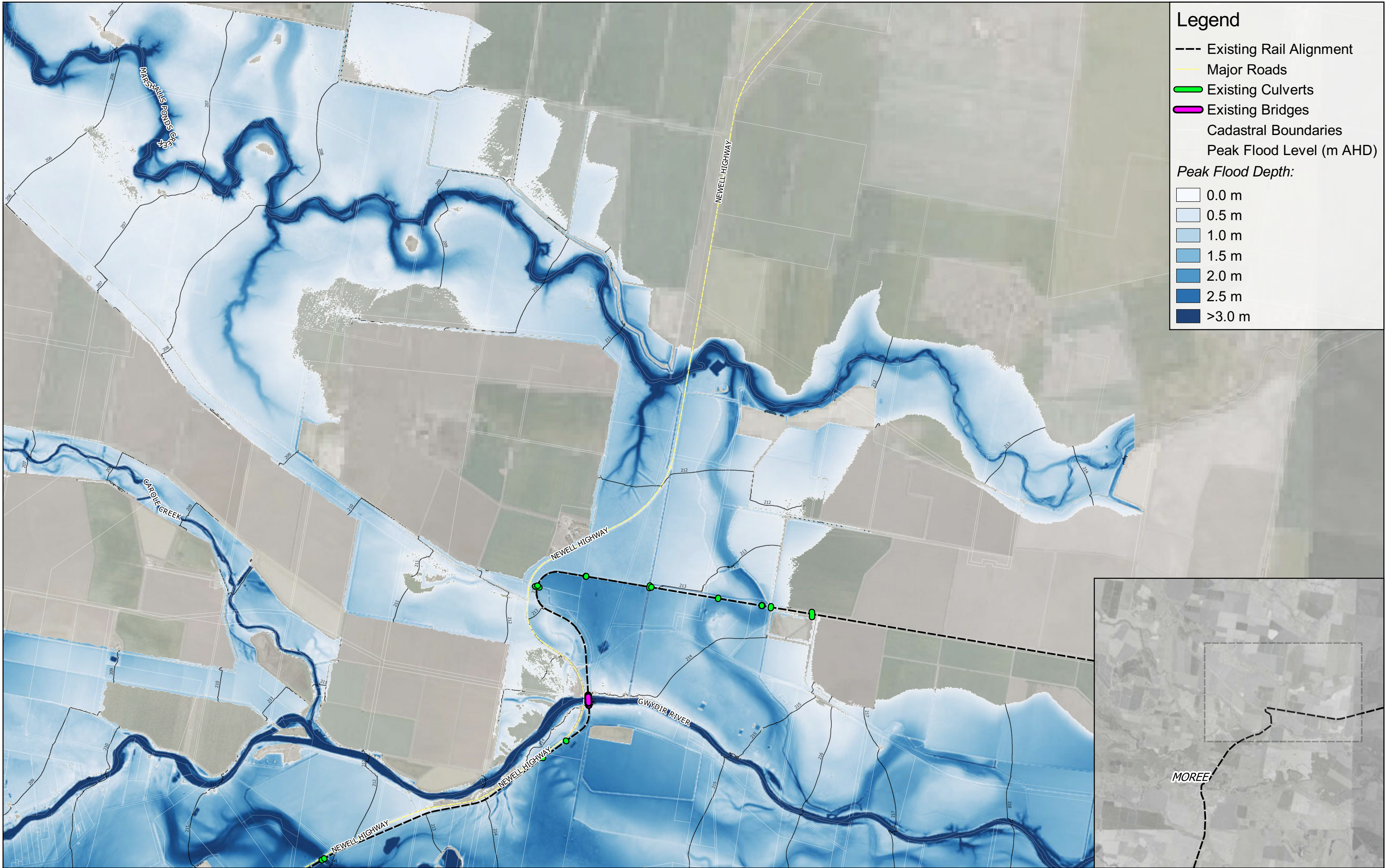


Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

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- 2.0 m
- 2.5 m
- >3.0 m

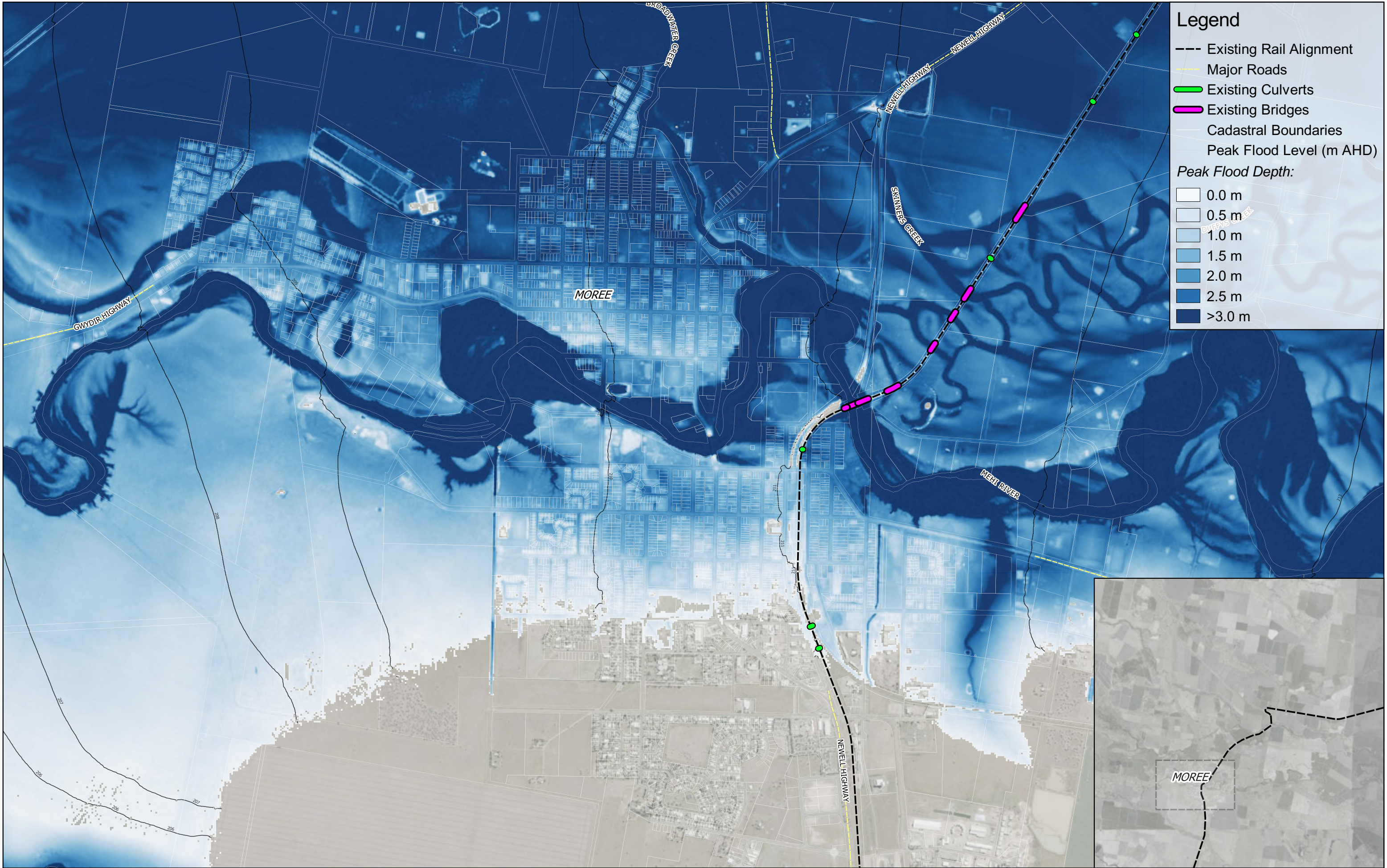


Legend

- Existing Rail Alignment
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- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

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- 0.5 m
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- 2.0 m
- 2.5 m
- >3.0 m



Legend

Existing Rail Alignment

Major Roads

Existing Culverts

Existing Bridges

Cadastral Boundaries

Peak Flood Level (m AHD)

Peak Flood Depth:

0.0 m

0.5 m

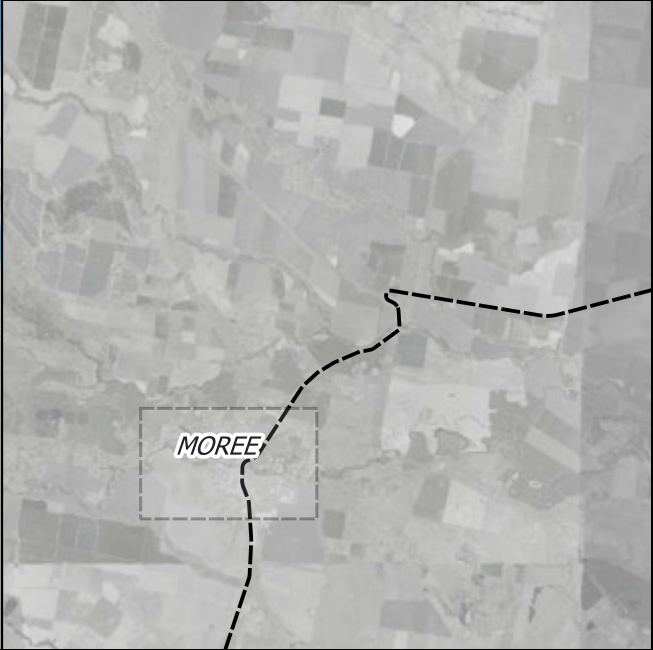
1.0 m

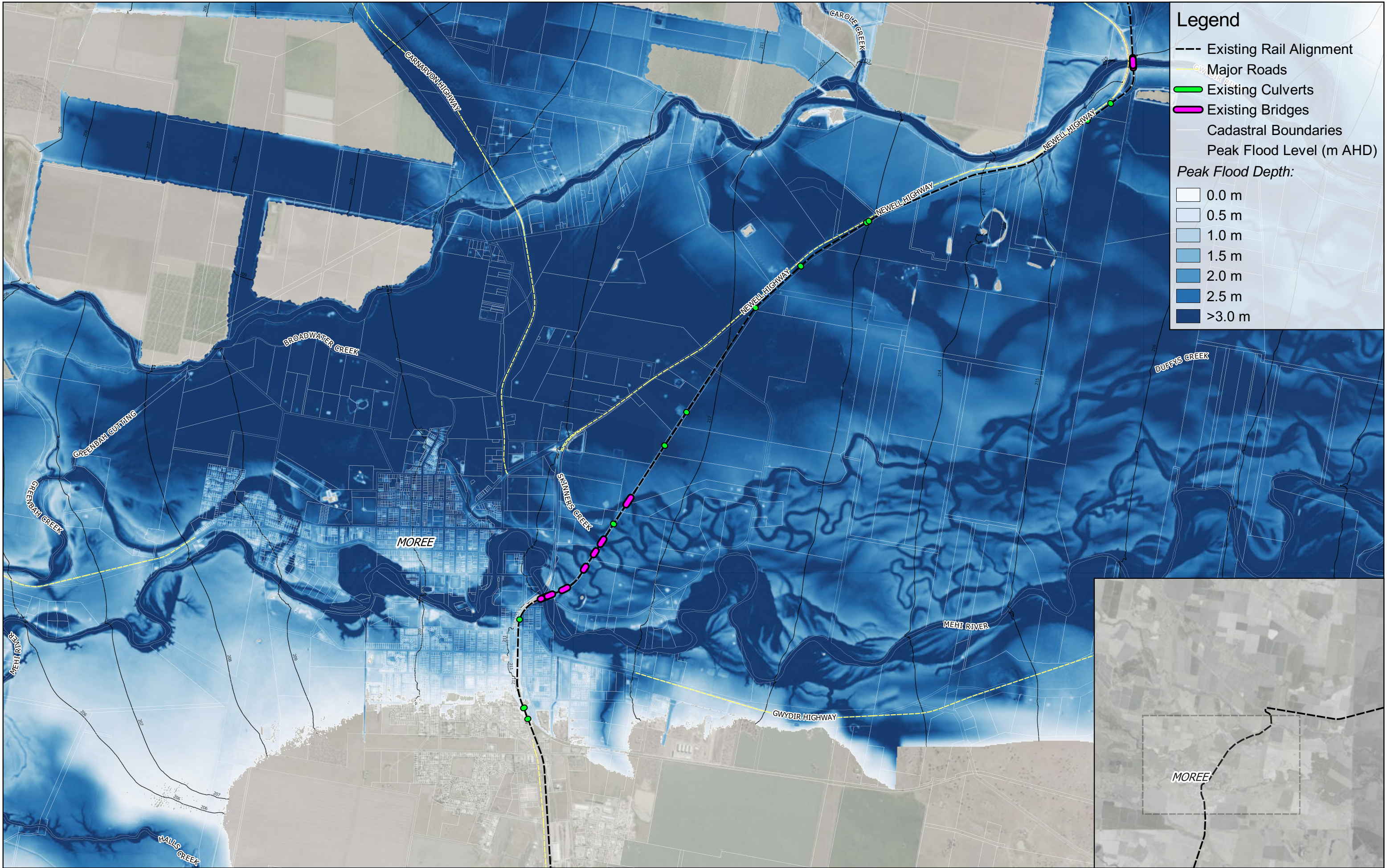
1.5 m

2.0 m

2.5 m

>3.0 m



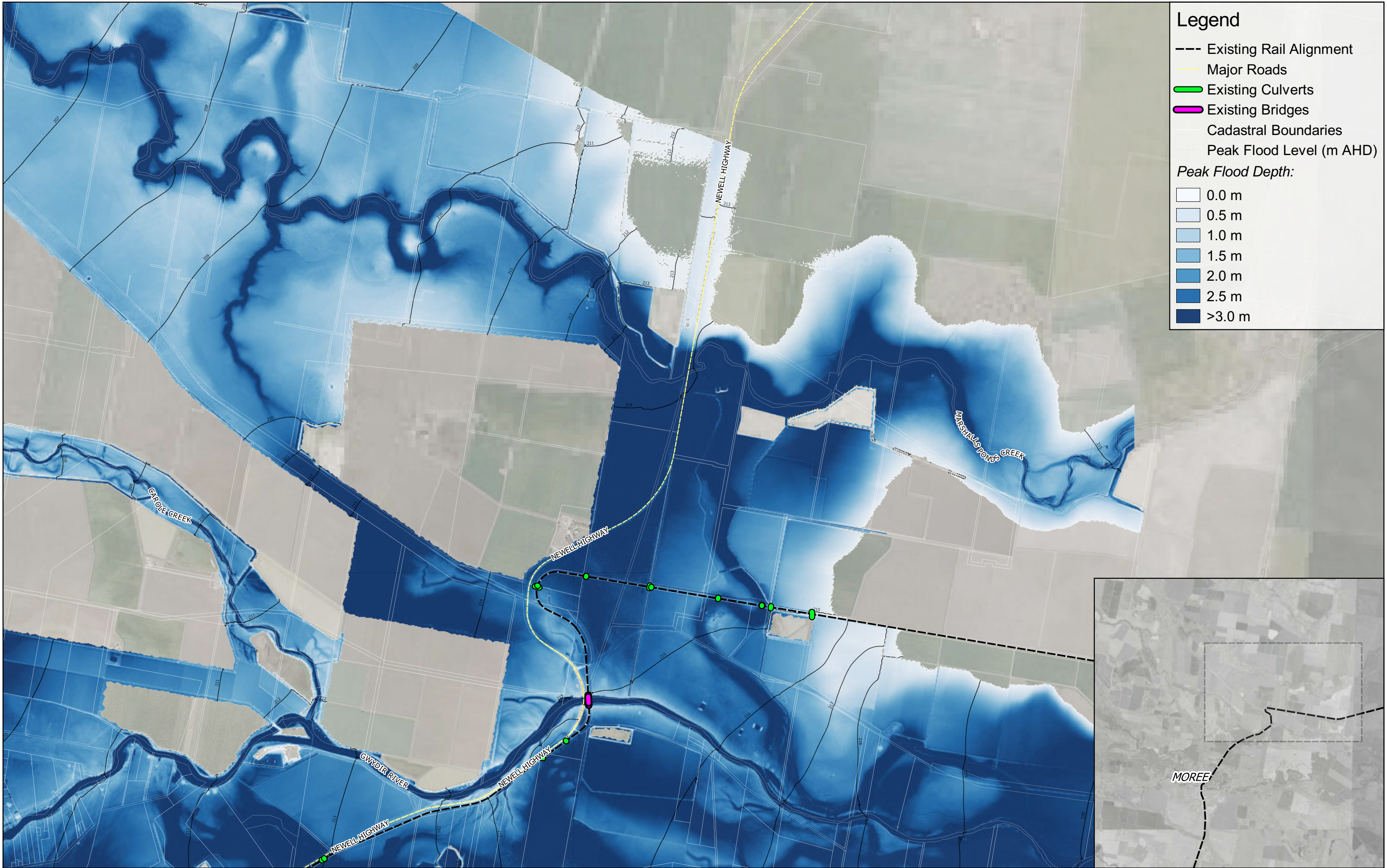


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- Cadastral Boundaries
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- 2.5 m
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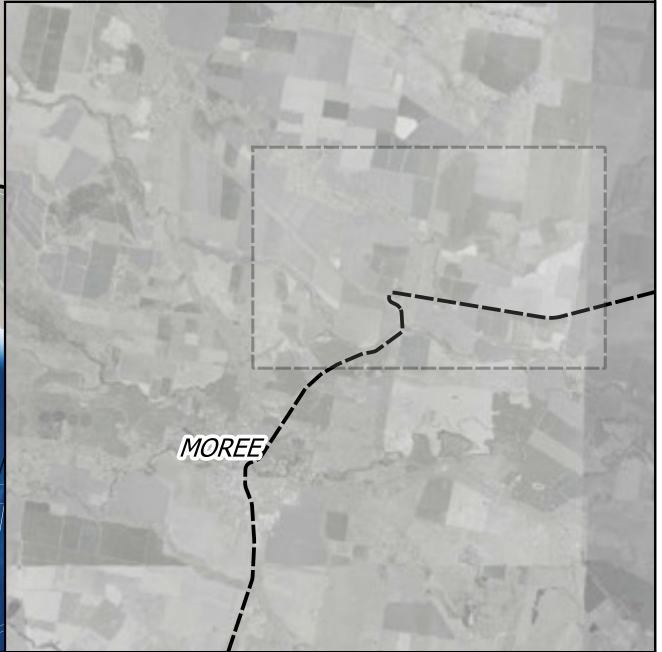


Legend

- Existing Rail Alignment
- Major Roads
- Existing Culverts
- Existing Bridges
- Cadastral Boundaries
- Peak Flood Level (m AHD)

Peak Flood Depth:

- 0.0 m
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- 1.0 m
- 1.5 m
- 2.0 m
- 2.5 m
- >3.0 m



Prepared for: ARTC
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Aerial Source: NSW Six Maps
Scale ratio correct when printed at A3

0 500 1000 1500 2000 m

Scale: 1:40000



Stage: EIS
Version: C
Author: JS
Approved by: RL
Date: 28/03/2022

Inland Rail - Narrabri to North Star Phase 2
Peak Flood Depth and Level - Existing Conditions Scenario
Event: PMF
Sheet 3
Map ID: EX_DEP_PMF_3