

TECHNICAL PAPER

04

Hydrology and flooding impact assessment

Appendix B Design case flood impact maps

Appendix B2 Velocity change maps

Part 1 of 2

NARRABRI TO NORTH STAR—PHASE 2 ENVIRONMENTAL IMPACT STATEMENT



Appendix B – Design case flood impact maps

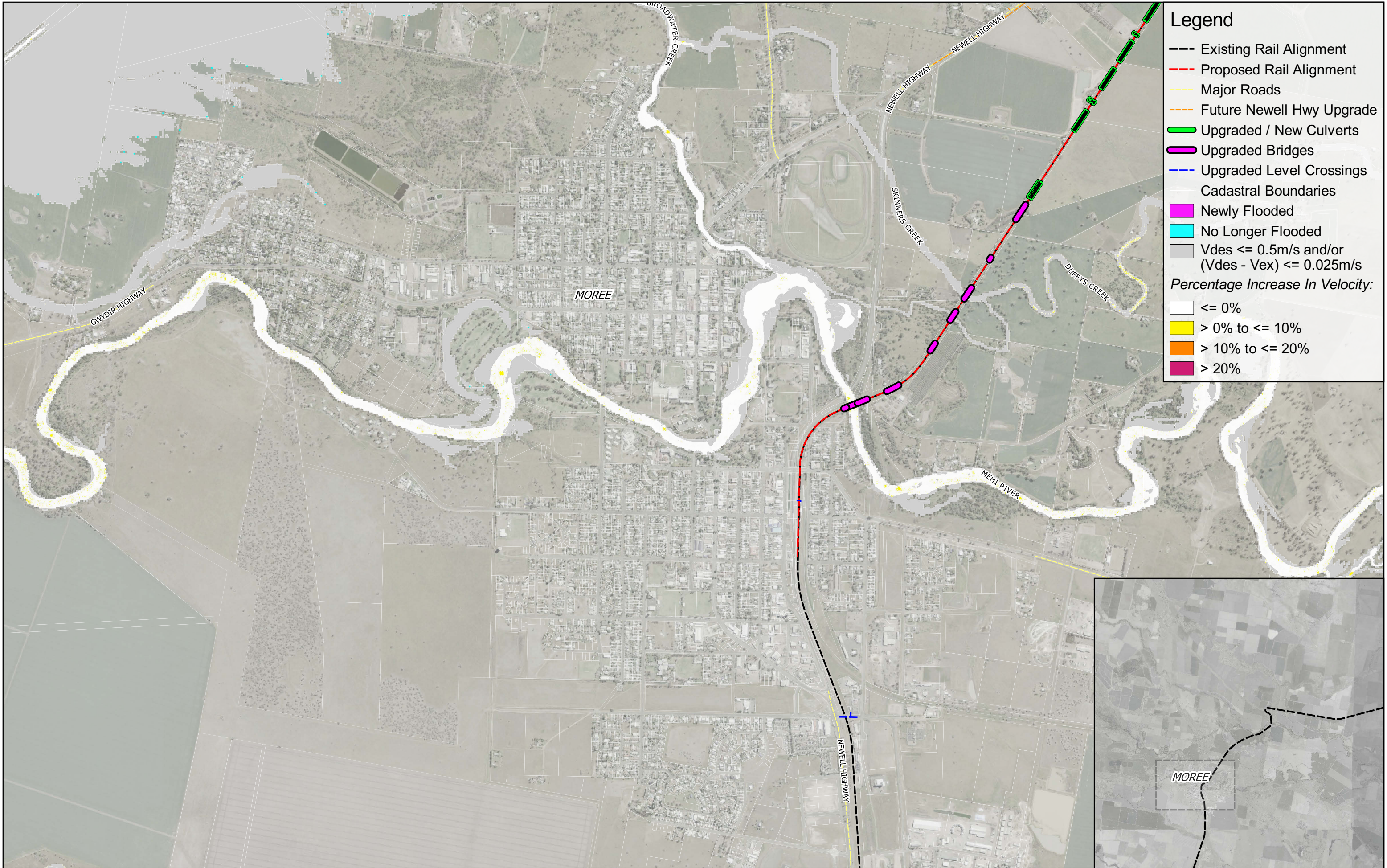
Map list

MAP SET ID	MAP CONTENTS
DES_AFF_020	Flood Level Change (Afflux) – Design Case, 20% AEP Event
DES_AFF_010	Flood Level Change (Afflux) – Design Case, 10% AEP Event
DES_AFF_005	Flood Level Change (Afflux) – Design Case, 5% AEP Event
DES_AFF_002	Flood Level Change (Afflux) – Design Case, 2% AEP Event
DES_AFF_001	Flood Level Change (Afflux) – Design Case, 1% AEP Event
DES_AFF_001CC	Flood Level Change (Afflux) – Design Case, 1% AEP Event with Climate Change
DES_AFF_PMF	Flood Level Change (Afflux) – Design Case, PMF Event
DES_CHV_020	Flood Velocity Change – Design Case, 20% AEP Event
DES_CHV_010	Flood Velocity Change – Design Case, 10% AEP Event
DES_CHV_005	Flood Velocity Change – Design Case, 5% AEP Event
DES_CHV_002	Flood Velocity Change – Design Case, 2% AEP Event
DES_CHV_001	Flood Velocity Change – Design Case, 1% AEP Event
DES_CHV_001CC	Flood Velocity Change – Design Case, 1% AEP Event with Climate Change
DES_CHV_PMF	Flood Velocity Change – Design Case, PMF Event
DES_CHDUR_020	Flood Duration Change – Design Case, 20% AEP Event
DES_CHDUR_010	Flood Duration Change – Design Case, 10% AEP Event
DES_CHDUR_005	Flood Duration Change – Design Case, 5% AEP Event
DES_CHDUR_002	Flood Duration Change – Design Case, 2% AEP Event
DES_CHDUR_001	Flood Duration Change – Design Case, 1% AEP Event
DES_CHDUR_001CC	Flood Duration Change – Design Case, 1% AEP Event with Climate Change
DES_CHDUR_PMF	Flood Duration Change – Design Case, PMF Event
DES_CHHAZ_020	Flood Hazard (Velocity x Depth) Change – Design Case, 20% AEP Event
DES_CHHAZ_010	Flood Hazard (Velocity x Depth) Change – Design Case, 10% AEP Event
DES_CHHAZ_005	Flood Hazard (Velocity x Depth) Change – Design Case, 5% AEP Event
DES_CHHAZ_002	Flood Hazard (Velocity x Depth) Change – Design Case, 2% AEP Event
DES_CHHAZ_001	Flood Hazard (Velocity x Depth) Change – Design Case, 1% AEP Event
DES_CHHAZ_001CC	Flood Hazard (Velocity x Depth) Change – Design Case, 1% AEP Event with Climate Change
DES_CHHAZ_PMF	Flood Hazard (Velocity x Depth) Change – Design Case, PMF Event

B.2 Velocity change

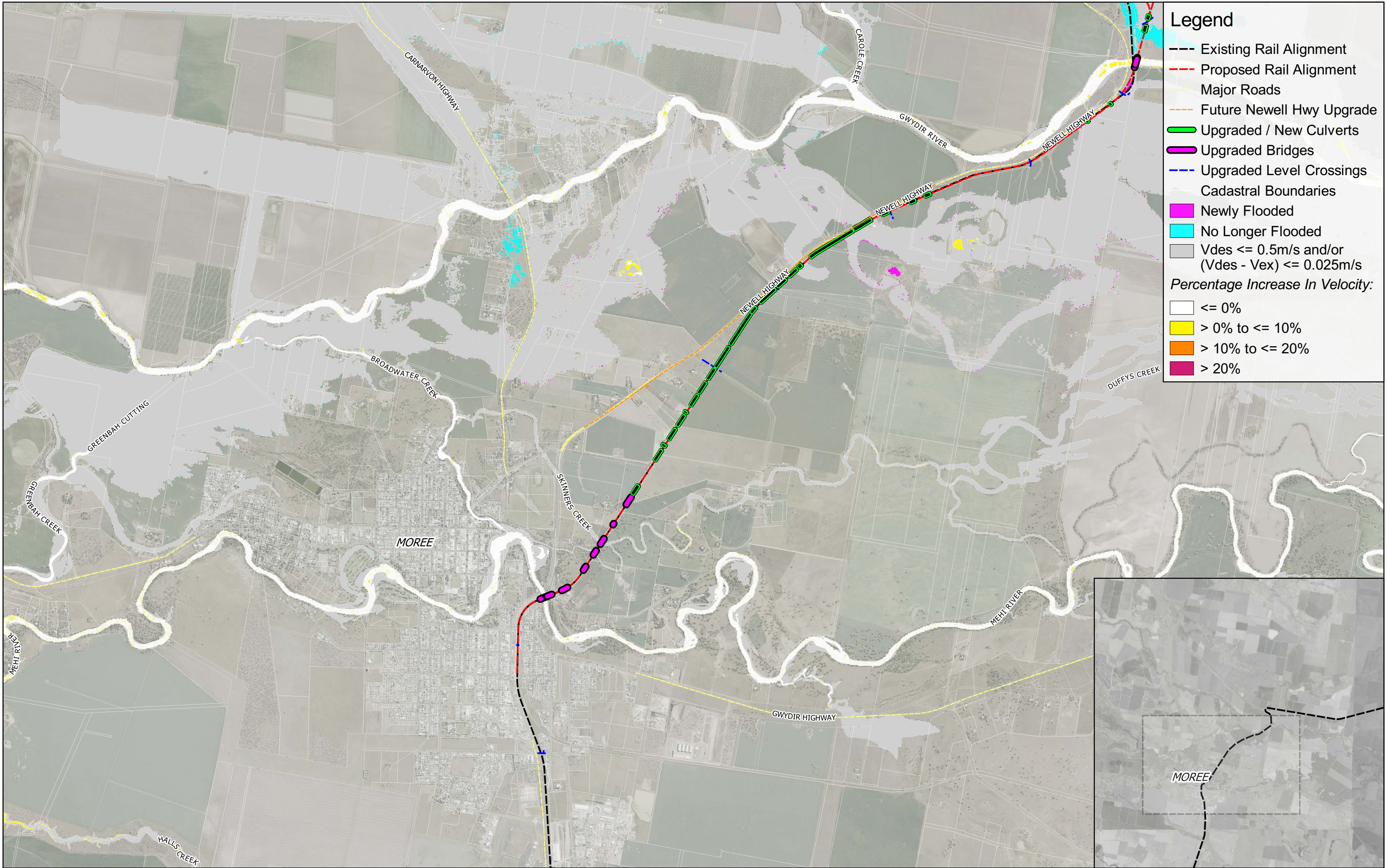
Map list

MAP SET ID	MAP CONTENTS
DES_CHV_020	Flood Velocity Change – Design Case, 20% AEP Event
DES_CHV_010	Flood Velocity Change – Design Case, 10% AEP Event
DES_CHV_005	Flood Velocity Change – Design Case, 5% AEP Event
DES_CHV_002	Flood Velocity Change – Design Case, 2% AEP Event
DES_CHV_001	Flood Velocity Change – Design Case, 1% AEP Event
DES_CHV_001CC	Flood Velocity Change – Design Case, 1% AEP Event with Climate Change
DES_CHV_PMF	Flood Velocity Change – Design Case, PMF Event



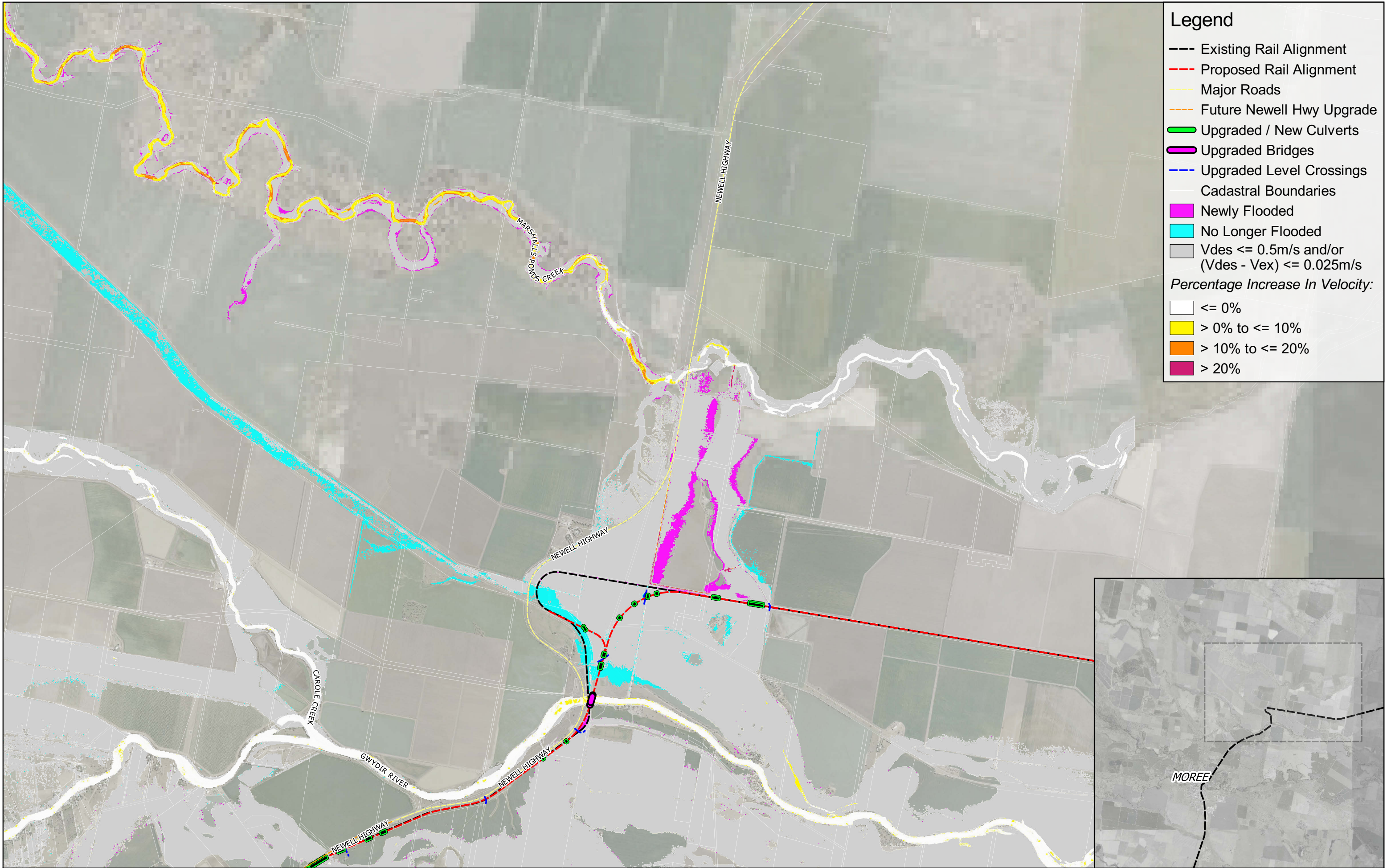
Legend

- Existing Rail Alignment
 - Proposed Rail Alignment
 - Major Roads
 - Future Newell Hwy Upgrade
 - Upgraded / New Culverts
 - Upgraded Bridges
 - Upgraded Level Crossings
 - Cadastral Boundaries
 - Newly Flooded
 - No Longer Flooded
 - Vdes <= 0.5m/s and/or (Vdes - Vex) <= 0.025m/s
- Percentage Increase In Velocity:
- <= 0%
 - > 0% to <= 10%
 - > 10% to <= 20%
 - > 20%



Legend

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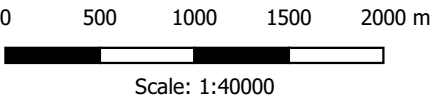


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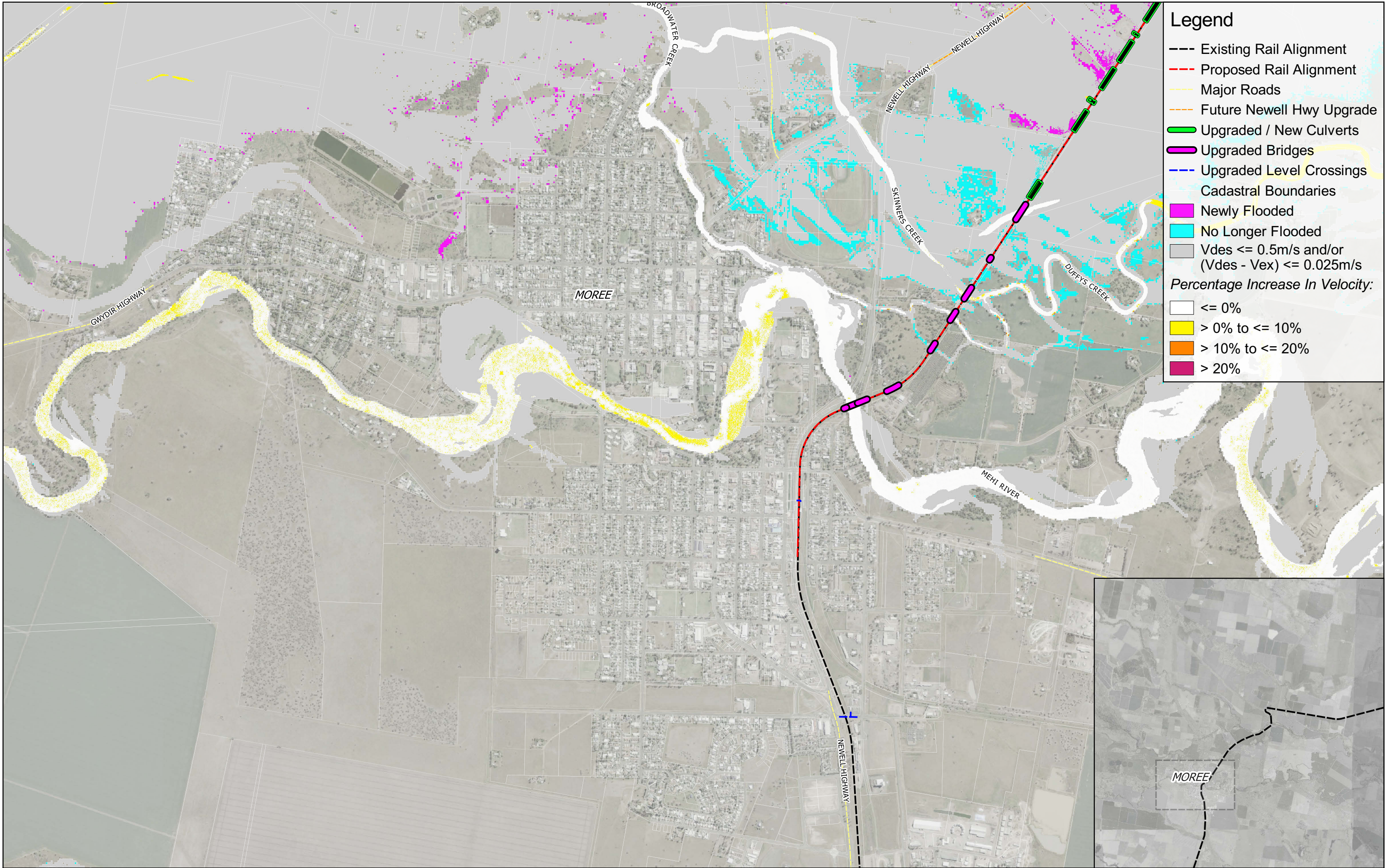


Prepared for: ARTC
Coordinate system: GDA 1994 MGA Zone 55
Aerial Source: NSW Six Maps
Scale ratio correct when printed at A3



Stage: EIS
Version: D
Author: JS
Approved by: RL
Date: 16/06/2022

Inland Rail - Narrabri to North Star Phase 2
Peak Flood Change In Velocity (V<0.5m/s) - Proposed Design Scenario
Event: 20% AEP
Sheet 3
Map ID: DES_CHV_ALT_0pt5Mask_020_3



Legend

Existing Rail Alignment

Proposed Rail Alignment

Major Roads

Future Newell Hwy Upgrade

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Upgraded Level Crossings

Cadastral Boundaries

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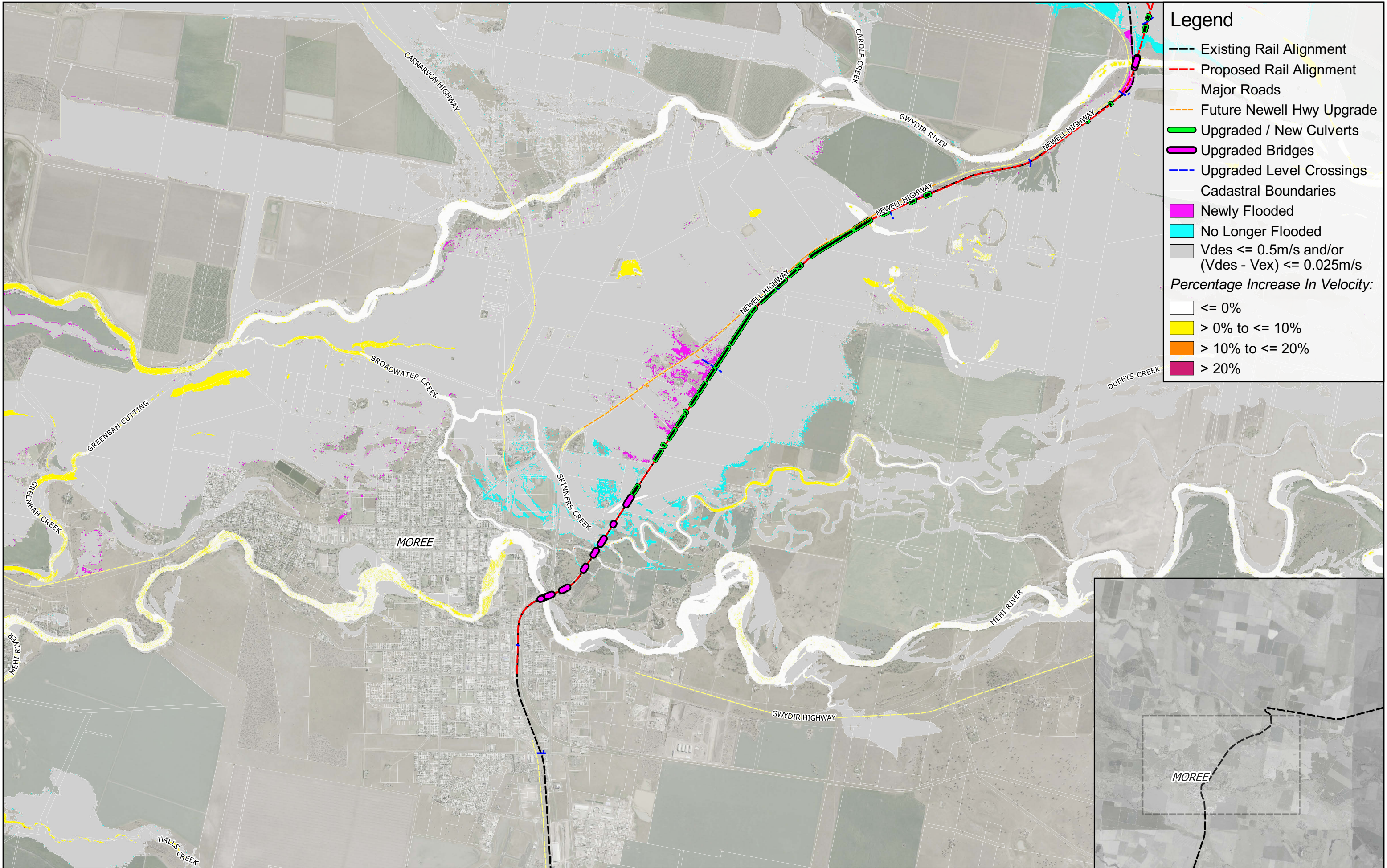
Percentage Increase In Velocity:

<= 0%

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> 10% to <= 20%

> 20%

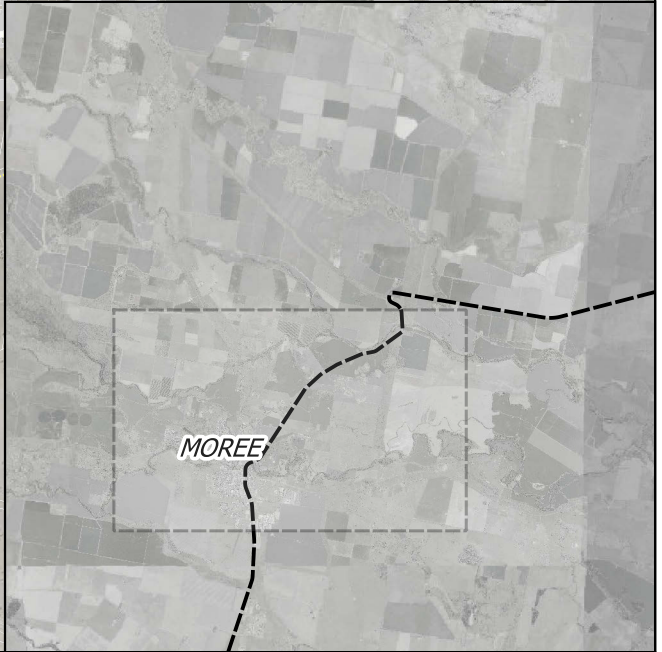


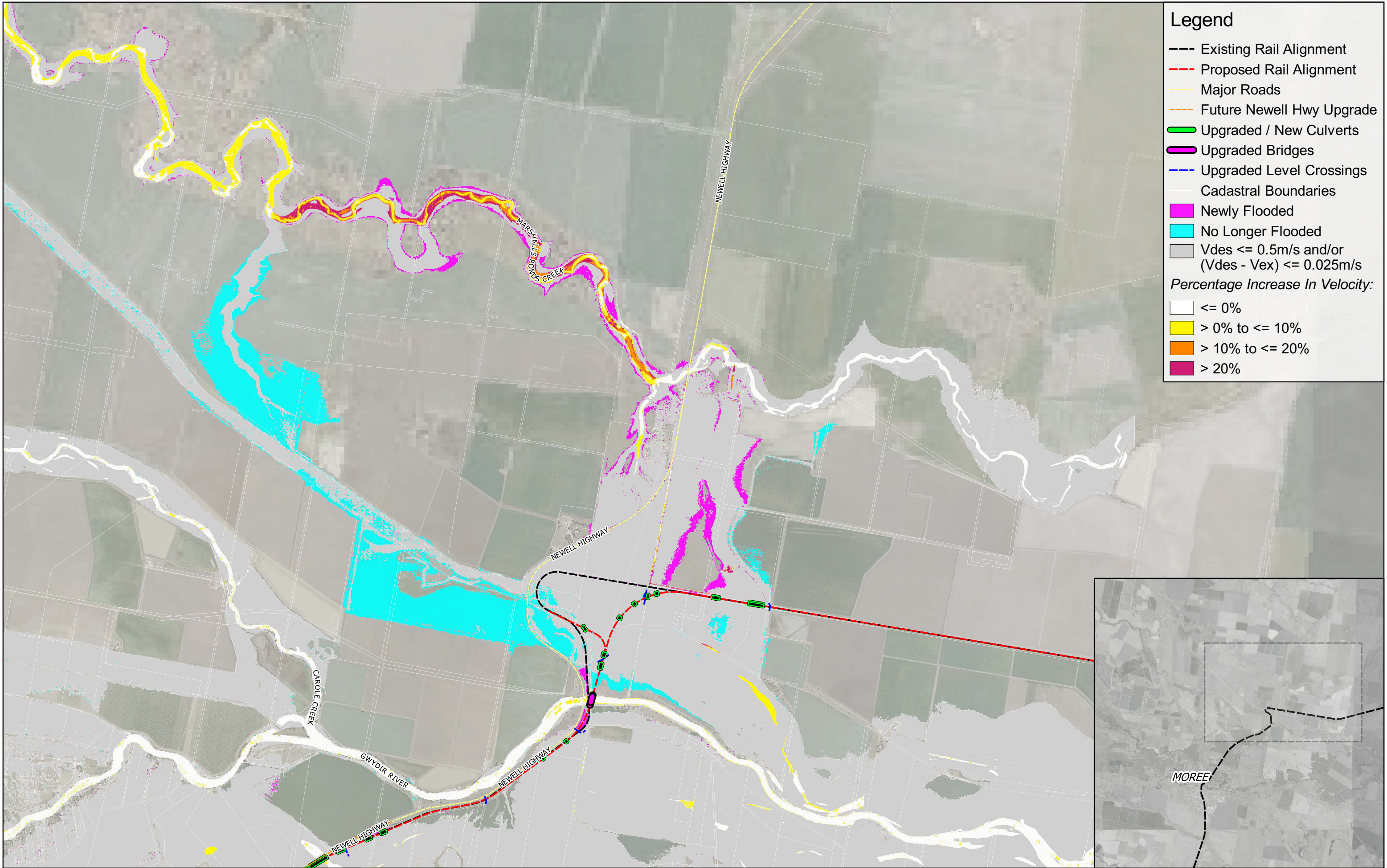
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Percentage Increase In Velocity:

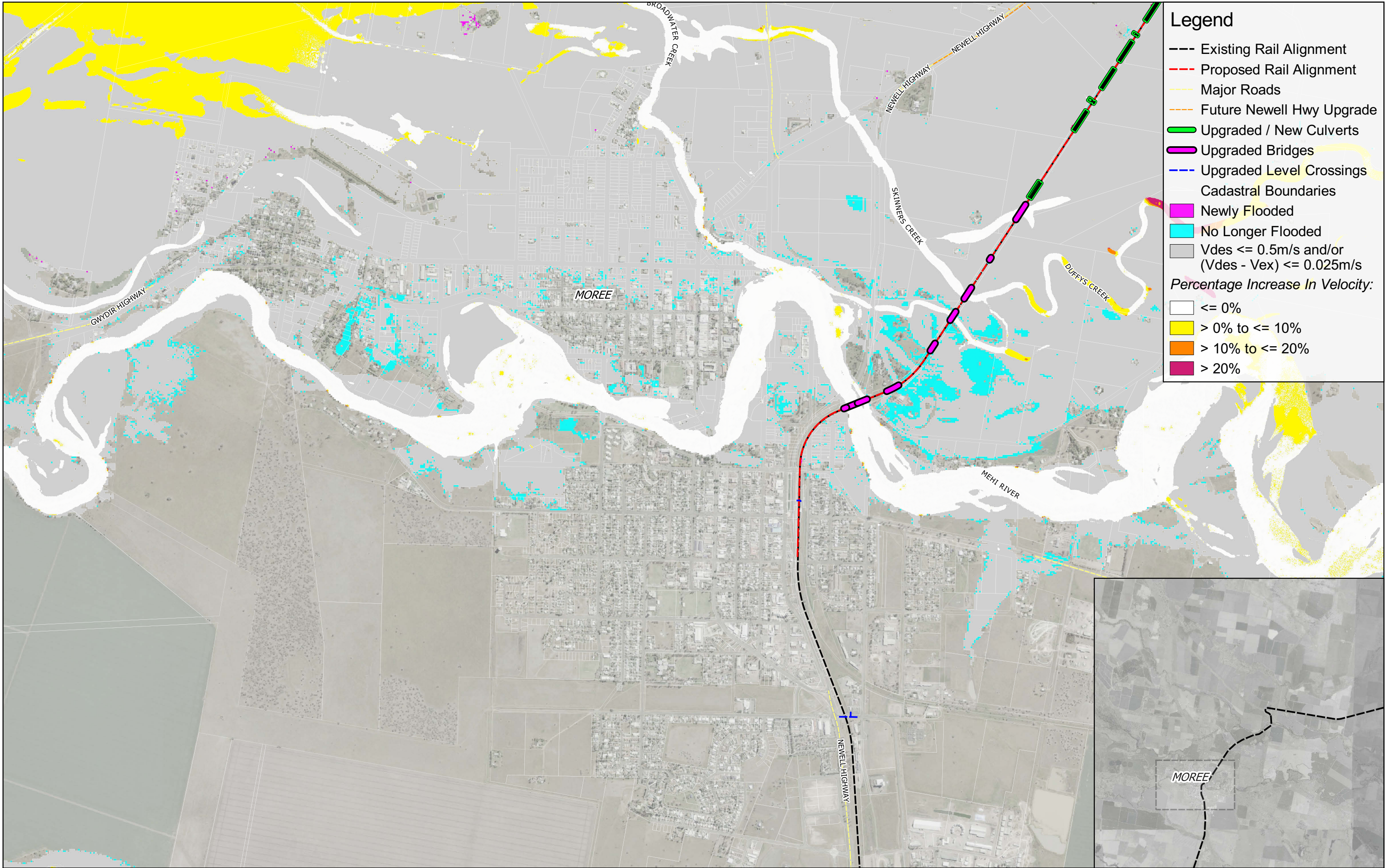
<= 0%

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> 10% to <= 20%

> 20%





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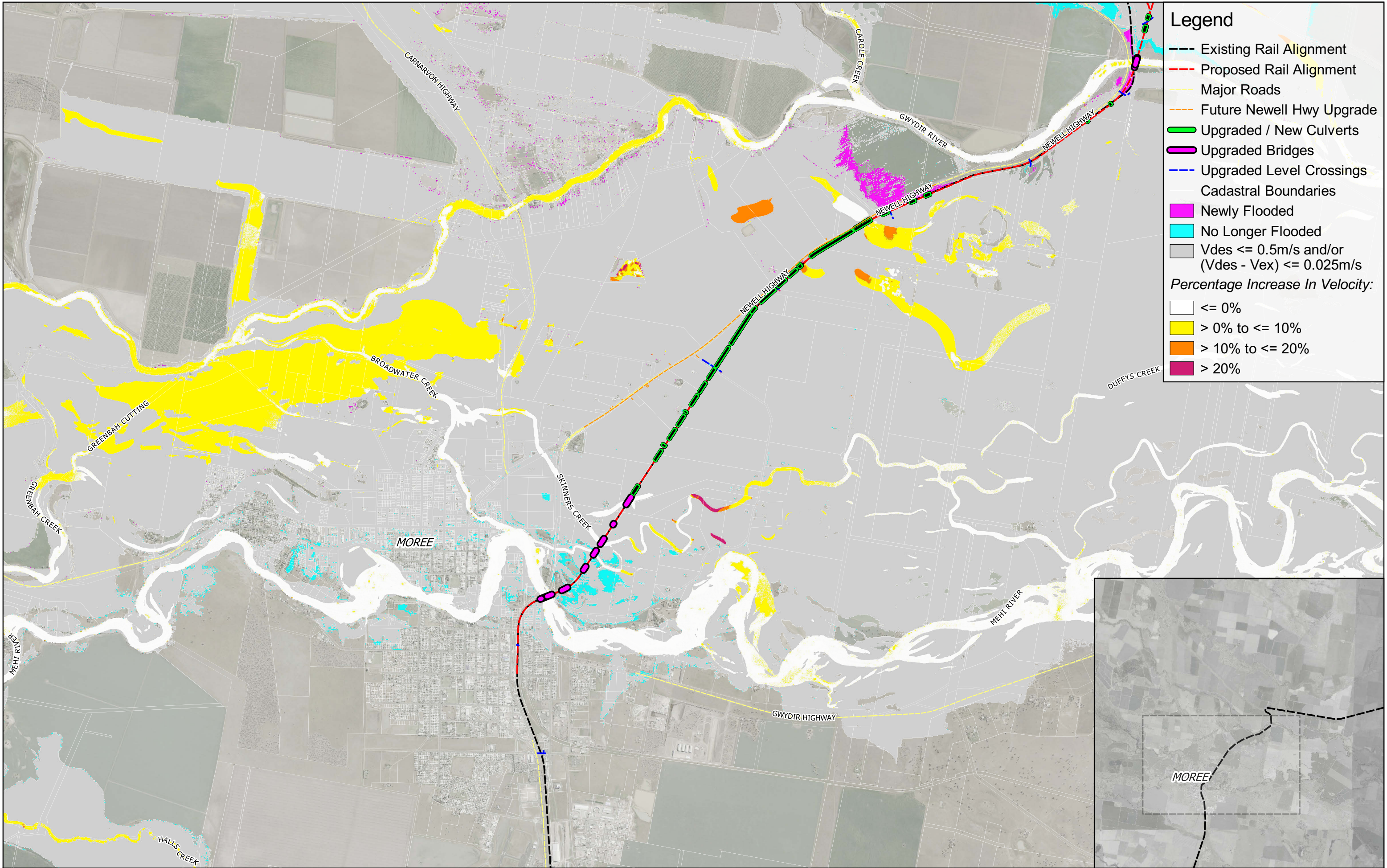
Percentage Increase In Velocity:

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> 10% to <= 20%

> 20%

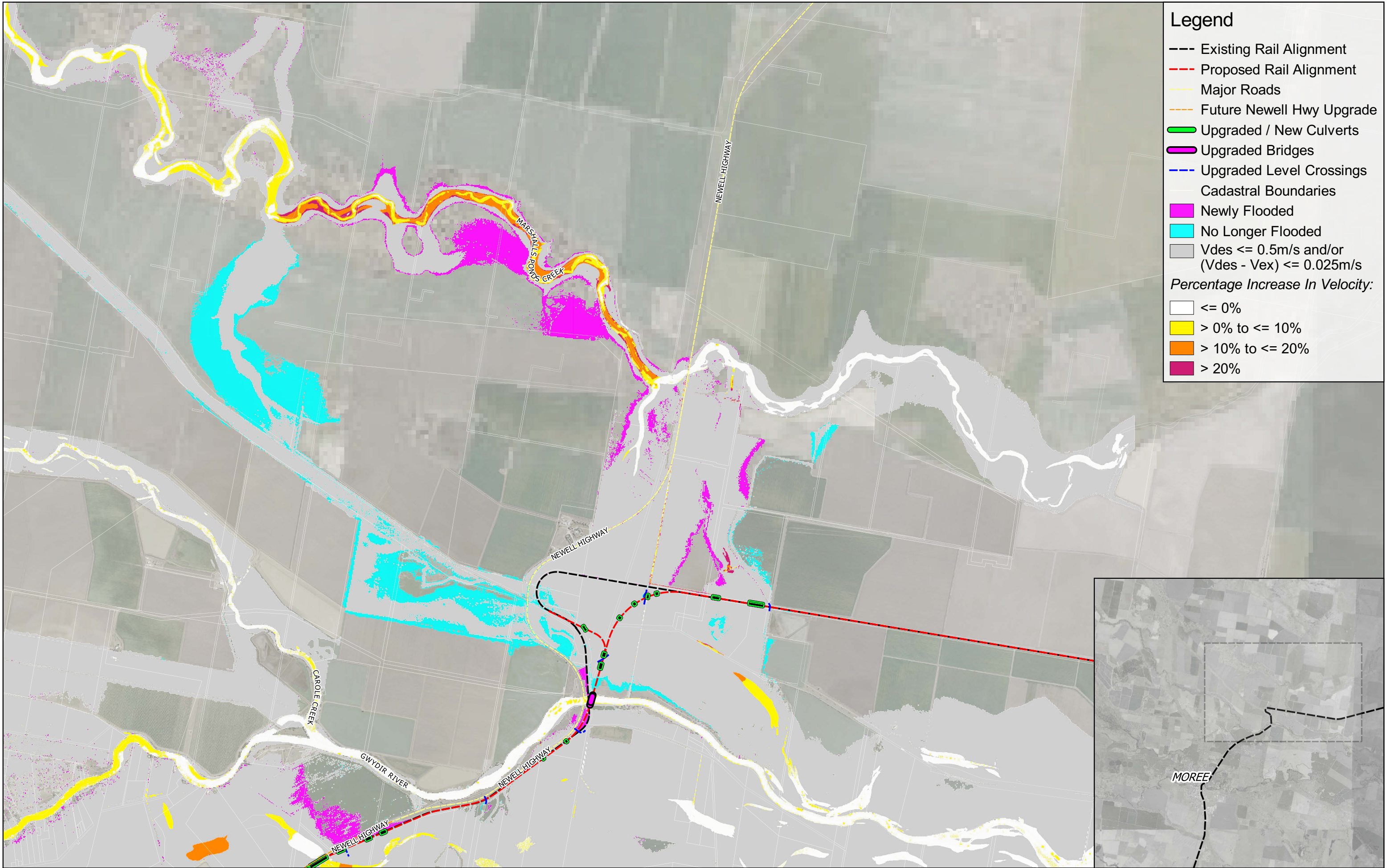


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