

# Appendix C

## Design Conditions Flood Maps

*C1 – Flood Level Change (Afflux) 39% AEP*

*C2 – Flood Level Change (Afflux) 10% AEP*

*C3 – Flood Level Change (Afflux) 1% AEP*

*C4 – Flood Level Change (Afflux) 1% AEP with climate change*

*C5 – Flood Velocity Change 39% AEP*

*C6 – Flood Velocity Change 10% AEP*

*C7 – Flood Velocity Change 1% AEP*

*C8 – Flood Velocity Change 1% AEP with climate change*

*C9 – Flood Duration Change 39% AEP*

*C10 – Flood Duration Change 10% AEP*

*C11 – Flood Duration Change 1% AEP*



*C12 – Flood Duration Change 1% AEP with climate change*







For Information Only

	<p>0 250 500 750 1000 m</p> <p>1:25,000</p> <p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>		Date: 15/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="center"><b>Figure DE1CCVC1</b></p> <p align="center">1% AEP CC Climate Change Percentage Change In Velocity - CH 450.00</p>
			Rev: A - For Information Only	

E:\22dsynergy\2\IR P2N\_1\01 WIP\Flooding and Drainage\GIS Mapping\Individual Property Maps\Maping\_Full\_Project.ags - 2.18.21





**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity <= 1m/s

Percentage Change in Velocity:

- <= -20%
- 20 - 20%
- > 20%



0 250 500 750 1000 m

1:25,000

Coordinate system: GDA 1994 MGA Zone 55  
 Inset Aerial Source: NSW Six Map  
 Scale ratio correct when printed at A3



Date: 15/10/2018

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**Inland Rail - Parkes to Narromine**  
 IFC - Cross Drainage Flood Impact Assessment Results

**Figure DE1CCVC2**  
 1%AEP CC Climate Change Percentage Change In Velocity - CH 455.00








For Information Only

	<p>0 250 500 750 1000 m</p> <p>1:25,000</p> <p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>		Date: 15/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="center"><b>Figure DE1CCVC3</b> 1%AEP CC Climate Change Percentage Change In Velocity - CH 460.00</p>
			Rev: A - For Information Only	
Prepared By: YeohM				





For Information Only

	<p>0 250 500 750 1000 m</p> <p>1:25,000</p> <p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>	 	Date: 15/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="center"><b>Figure DE1CCVC4</b> <i>1%AEP CC Climate Change Percentage Change In Velocity - CH 465.00</i></p>
	<p>Rev: A - For Information Only</p> <p>Prepared By: YeohM</p>			





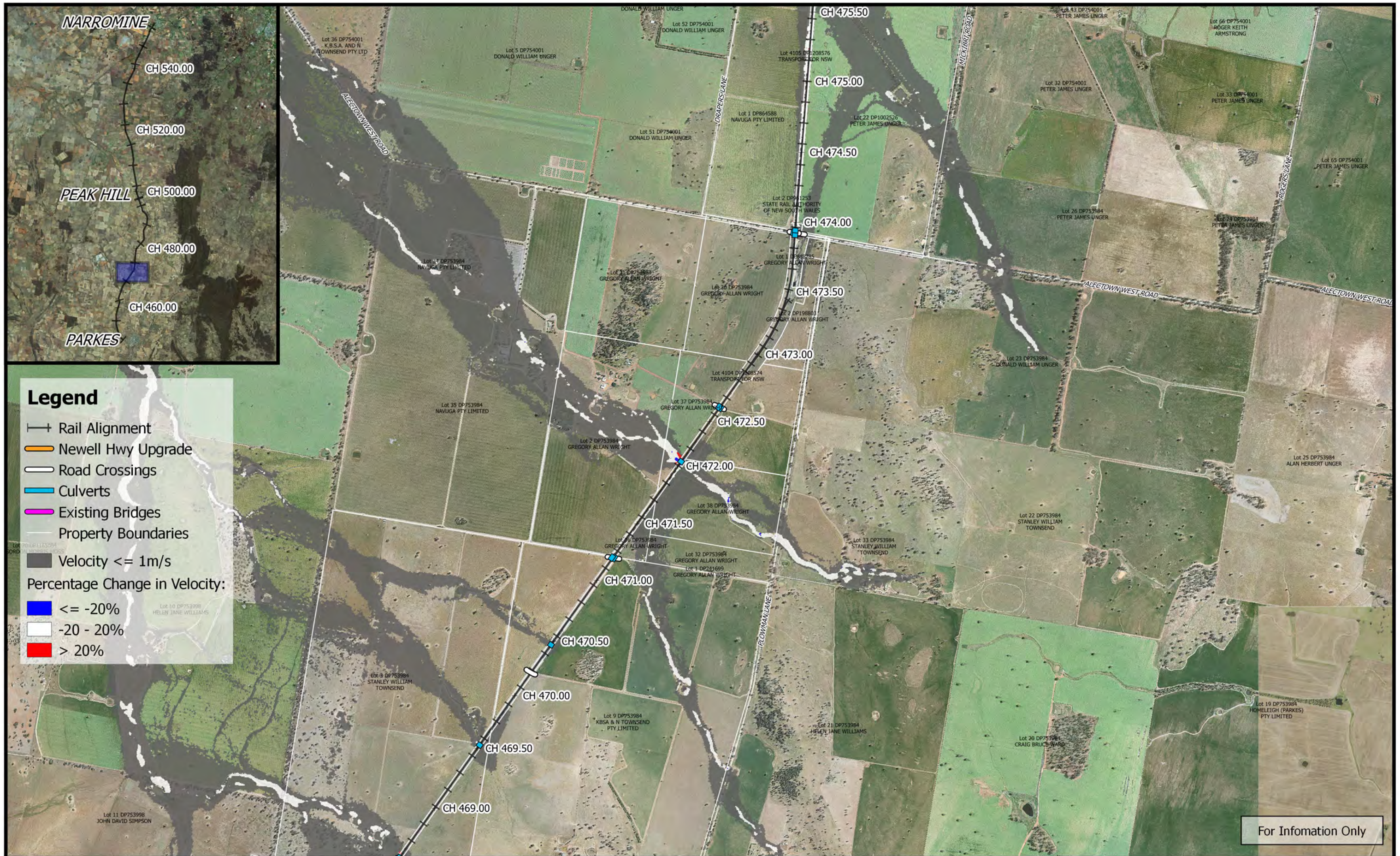
**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity <= 1m/s
- Percentage Change in Velocity:
- <= -20%
- 20 - 20%
- > 20%

For Information Only

	 1:25,000		Date: 15/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results  <b>Figure DE1CCVC5</b> 1%AEP CC Climate Change Percentage Change In Velocity - CH 470.00	
	Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Rev: A - For Information Only		
			Prepared By: YeohM		





	0 250 500 750 1000 m 1:25,000		Date: 15/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results <b>Figure DE1CCVC6</b> 1%AEP CC Climate Change Percentage Change In Velocity - CH 472.00
	Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Rev: A - For Information Only	
	Prepared By: YeohM			





**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity <= 1m/s

Percentage Change in Velocity:

- <= -20%
- 20 - 20%
- > 20%

For Information Only

	 1:25,000 Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Date: 15/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results  <b>Figure DE1CCVC7</b> 1%AEP CC Climate Change Percentage Change In Velocity - CH 475.00
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			Prepared By: YeohM	





**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity  $\le 1m/s$
- Percentage Change in Velocity:
- $\le -20\%$
- $-20 - 20\%$
- $> 20\%$

For Information Only

	 1:25,000 Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Date: 15/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results  <b>Figure DE1CCVC8</b> 1% AEP CC Climate Change Percentage Change In Velocity - CH 480.00
			Rev: A - For Information Only	
			Prepared By: YeohM	





**Legend**

- +— Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity <= 1m/s

Percentage Change in Velocity:

- <= -20%
- -20 - 20%
- > 20%

For Information Only

	 1:25,000		Date: 15/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results
	Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Rev: A - For Information Only	
			Prepared By: YeohM	





**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity  $\le 1\text{m/s}$

Percentage Change in Velocity:

- $\le -20\%$
- $-20 - 20\%$
- $> 20\%$


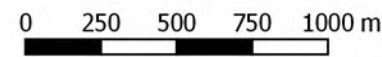

For Information Only

	 1:25,000		Date: 15/10/2018 Rev: A - For Information Only Prepared By: YeohM	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results <b>Figure DE1CCVC10</b> 1%AEP CC Climate Change Percentage Change In Velocity - CH 490.00
	Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3			





For Information Only

	 1:25,000		Date: 15/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results  <b>Figure DE1CCVC11</b> 1% AEP CC Climate Change Percentage Change In Velocity - CH 492.00
	Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Rev: A - For Information Only	
	Prepared By: YeohM			





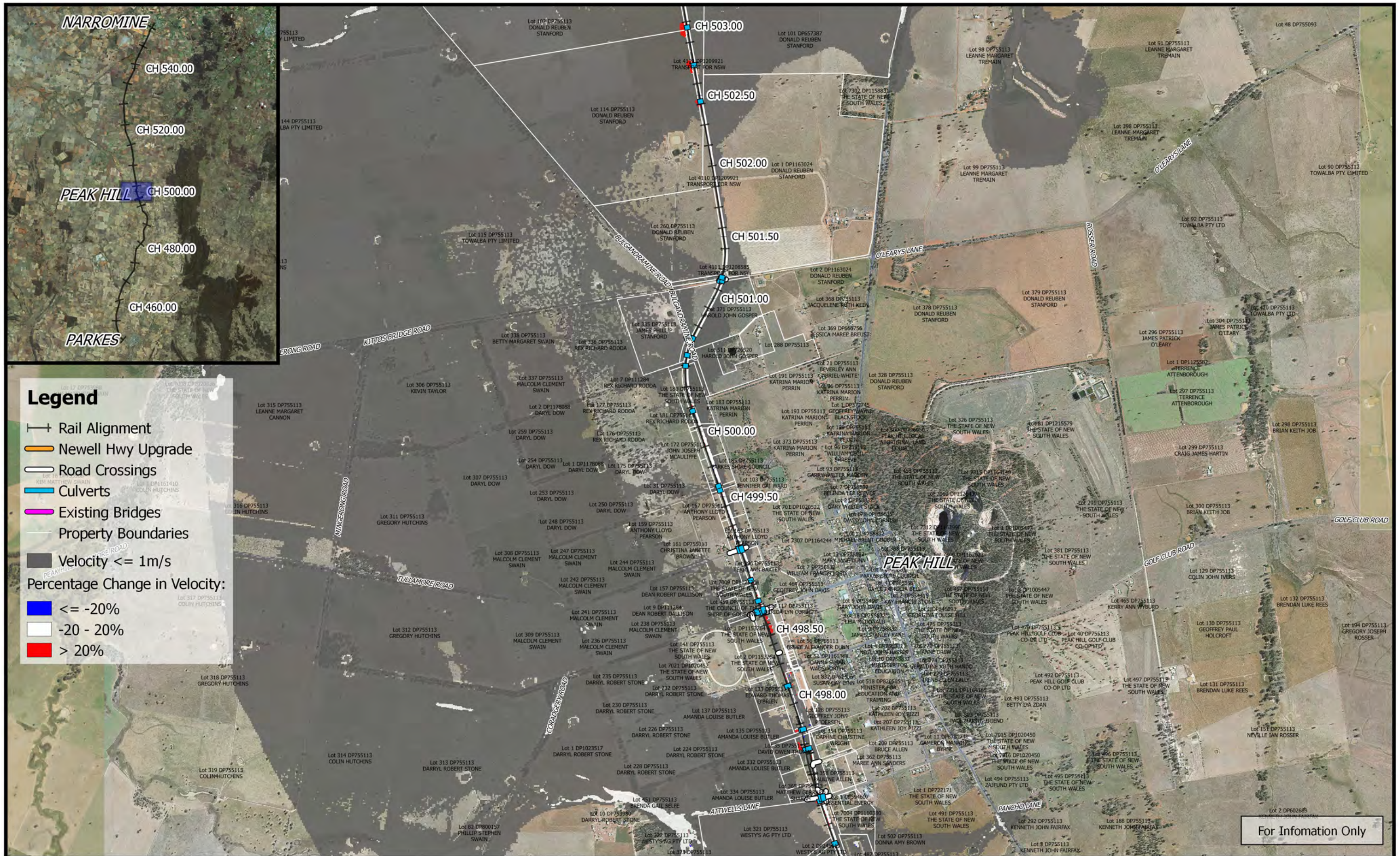
**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity  $\le 1\text{m/s}$
- Percentage Change in Velocity:
- $\le -20\%$
- $-20 - 20\%$
- $> 20\%$

For Information Only

	<p>1:25,000</p> <p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>		<p>Date: 15/10/2018</p> <p>Rev: A - For Information Only</p> <p>Prepared By: YeohM</p>	<p><b>Inland Rail - Parkes to Narromine</b></p> <p>IFC - Cross Drainage Flood Impact Assessment Results</p> <p><b>Figure DE1CCVC12</b></p> <p>1%AEP CC Climate Change Percentage Change In Velocity - CH 495.00</p>
	<p><small>E:\12d\Synergy\2\IR_P2N_1\01 WIP\Flooding and Drainage\GIS Mapping\Individual Property Maps\Mapping_Full_Project.gps - 2.18.21</small></p>			





For Information Only

	<p>1:25,000</p> <p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>		Date: 15/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="right"><b>Figure DE1CCVC13</b></p> <p align="center">1% AEP CC Climate Change Percentage Change In Velocity - CH 500.00</p>
			Rev: A - For Information Only	
			Prepared By: YeohM	





For Information Only

	<p>0 250 500 750 1000 m</p> <p>1:25,000</p> <p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>		Date: 15/10/2018	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p><b>Figure DE1CCVC14</b> 1% AEP CC Climate Change Percentage Change In Velocity - CH 505.00</p>
			Rev: A - For Information Only	
Prepared By: YeohM				





**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity <= 1m/s

Percentage Change in Velocity:

- <= -20%
- 20 - 20%
- > 20%

For Information Only

	 1:25,000		Date: 15/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results
	Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Rev: A - For Information Only	<b>Figure DE1CCVC15</b> 1% AEP CC Climate Change Percentage Change In Velocity - CH 510.00
			Prepared By: YeohM	





**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity <= 1m/s

Percentage Change in Velocity:

- <= -20%
- 20 - 20%
- > 20%

For Information Only

	 1:25,000	 	Date: 15/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results
	Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Rev: A - For Information Only	
			Prepared By: YeohM	





**Legend**

- Rail Alignment
  - Newell Hwy Upgrade
  - Road Crossings
  - Culverts
  - Existing Bridges
  - Property Boundaries
  - Velocity  $\leq 1\text{m/s}$
- Percentage Change in Velocity:
- $\leq -20\%$
  - $-20 - 20\%$
  - $> 20\%$

Date: 15/10/2018

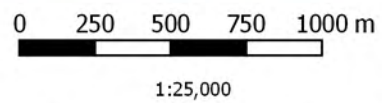
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**Inland Rail - Parkes to Narromine**  
IFC - Cross Drainage Flood Impact Assessment Results

**Figure DE1CCVC17**

1%AEP CC Climate Change Percentage Change In Velocity - CH 515.00



Coordinate system: GDA 1994 MGA Zone 55  
Inset Aerial Source: NSW Six Map  
Scale ratio correct when printed at A3







			Date: 15/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results	
	1:25,000 Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Rev: A - For Information Only		<b>Figure DE1CCVC18</b> 1% AEP CC Climate Change Percentage Change In Velocity - CH 520.00
	Prepared By: YeohM				





For Information Only

	<p>1:25,000</p> <p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>		<p>Date: 15/10/2018</p> <p>Rev: A - For Information Only</p> <p>Prepared By: YeohM</p>	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p><b>Figure DE1CCVC19</b> <i>1%AEP CC Climate Change Percentage Change In Velocity - CH 525.00</i></p>
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**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity  $\leq 1\text{m/s}$

Percentage Change in Velocity:

- $\leq -20\%$
- $-20 - 20\%$
- $> 20\%$

For Information Only

	<p>1:25,000</p>		Date: 15/10/2018	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p>
	Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Rev: A - For Information Only	
Prepared By: YeohM				

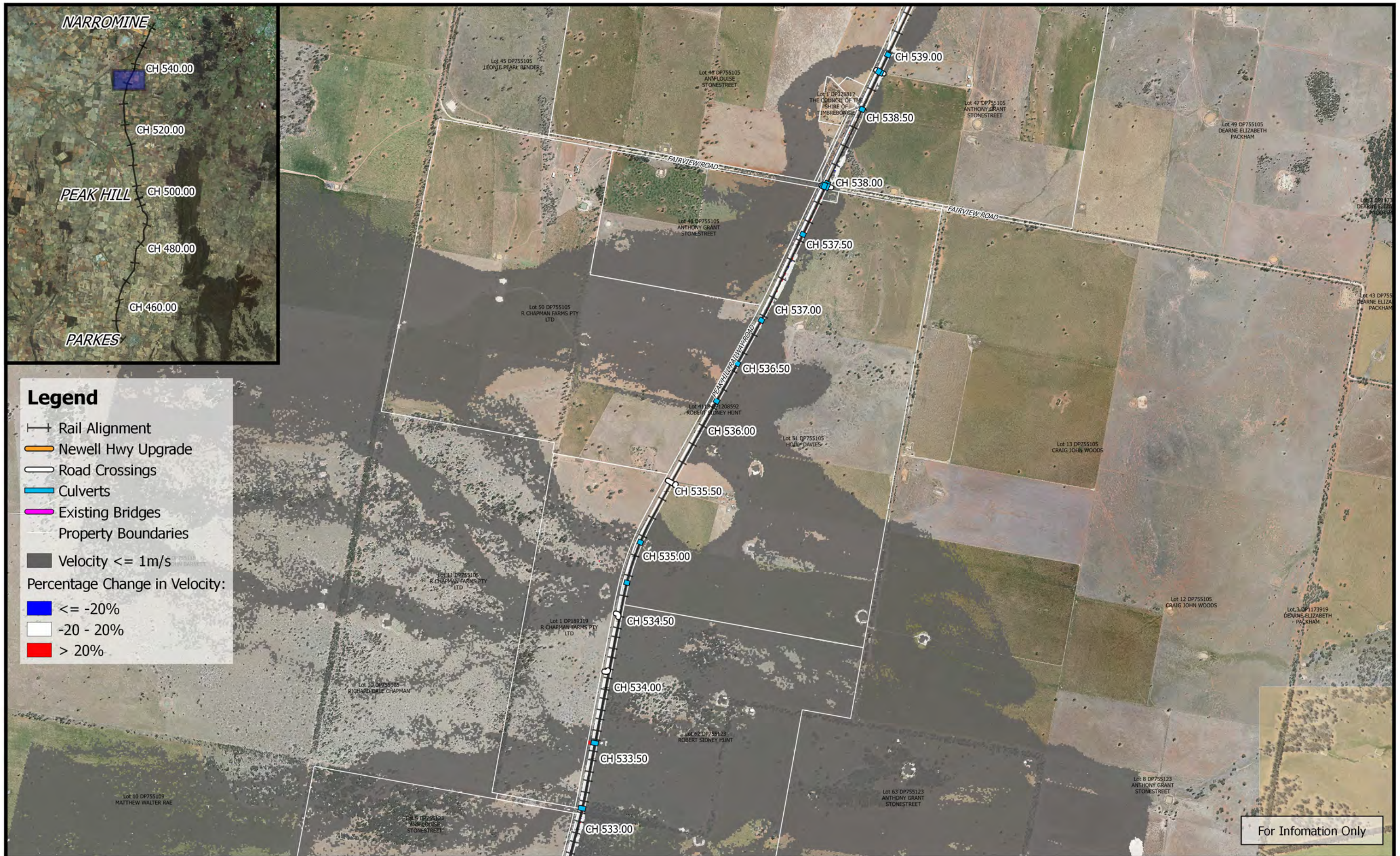




For Information Only

	<p>0 250 500 750 1000 m</p> <p>1:25,000</p> <p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>		Date: 15/10/2018	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p>
			Rev: A - For Information Only	
			Prepared By: YeohM	





	<p>1:25,000</p>		Date: 15/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="right"><b>Figure DE1CCVC22</b> <i>1%AEP CC Climate Change Percentage Change In Velocity - CH 535.00</i></p>
	<p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>		<p>Rev: A - For Information Only</p>	
	<p>Prepared By: YeohM</p>			





**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity <= 1m/s

Percentage Change in Velocity:

- <= -20%
- 20 - 20%
- > 20%

For Information Only

	 1:25,000	 	Date: 15/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results
	Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Rev: A - For Information Only	
			Prepared By: YeohM	






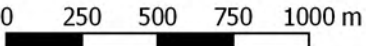

For Information Only

	<p>1:25,000</p>		Date: 15/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="right"><b>Figure DE1CCVC24</b> <i>1% AEP CC Climate Change Percentage Change In Velocity - CH 545.00</i></p>
	<p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>		<p>Rev: A - For Information Only</p>	
	<p>Prepared By: YeohM</p>			





For Information Only

	 1:25,000 Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Date: 15/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results
			Rev: A - For Information Only	
			Prepared By: YeohM	