

# 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*

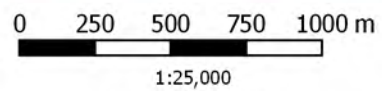






**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Duration <= 6 hours
- Percent Change In Duration**
- <= -5%
- 5% - 5%
- 5% - 10%
- > 10%



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



Date: 12/10/2018  
 Rev: A - For Information Only  
 Prepared By: YeohM

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

**Figure DE39DC1**  
 39% AEP Percentage Change In Duration For Flood Depths >200mm - CH 450.00

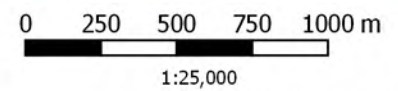




**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Duration <= 6 hours
- Percent Change In Duration**
- <= -5%
- 5% - 5%
- 5% - 10%
- > 10%

For Information Only



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



Date: 12/10/2018  
 Rev: A - For Information Only  
 Prepared By: YeohM

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

**Figure DE39DC2**  
 39% AEP Percentage Change In Duration For Flood Depths >200mm - CH 455.00

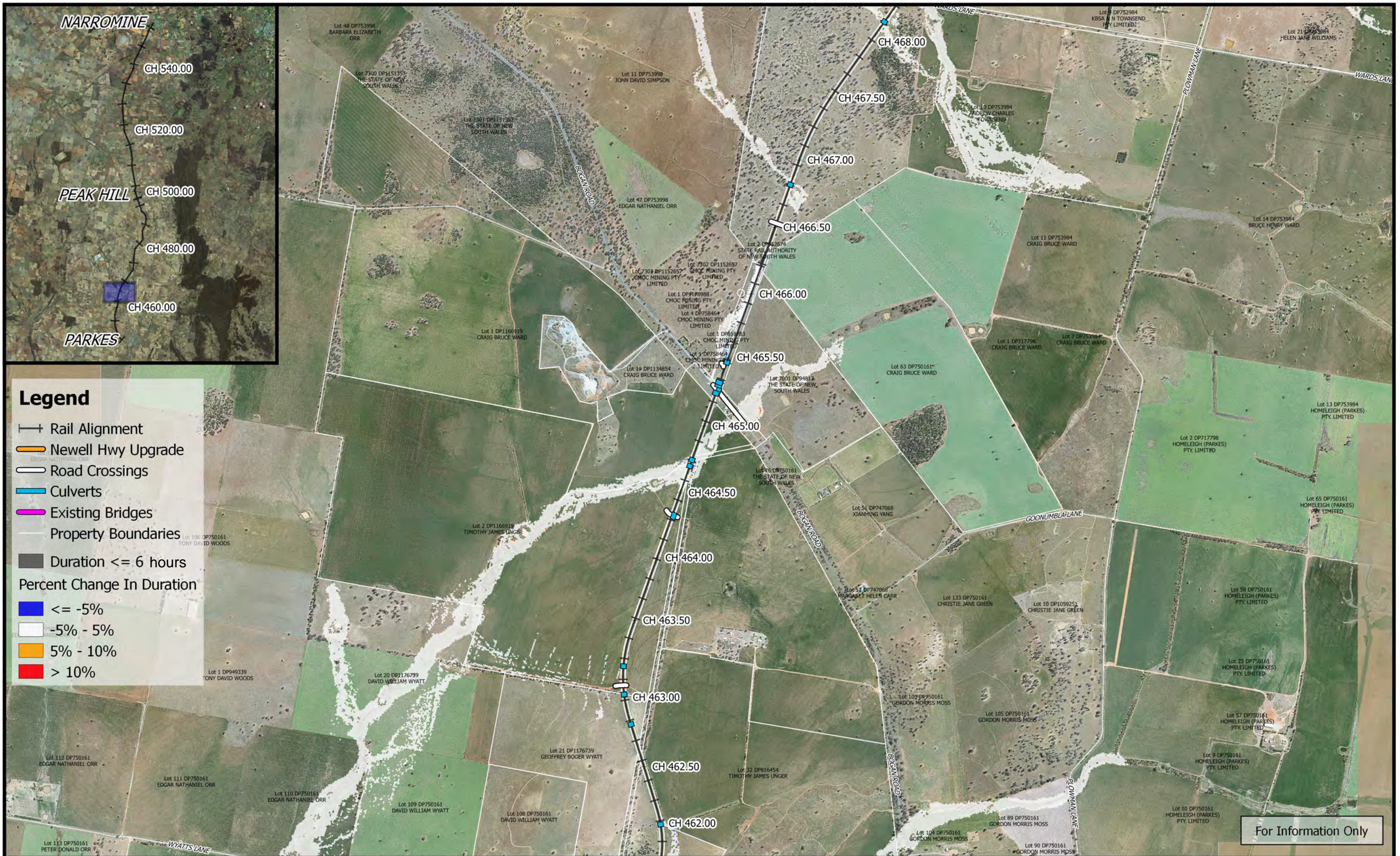




For Information Only

	<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: 12/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="center"><b>Figure DE39DC3</b></p> <p align="center"><i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 460.00</i></p>
			Rev: A - For Information Only	
			Prepared By: YeohM	



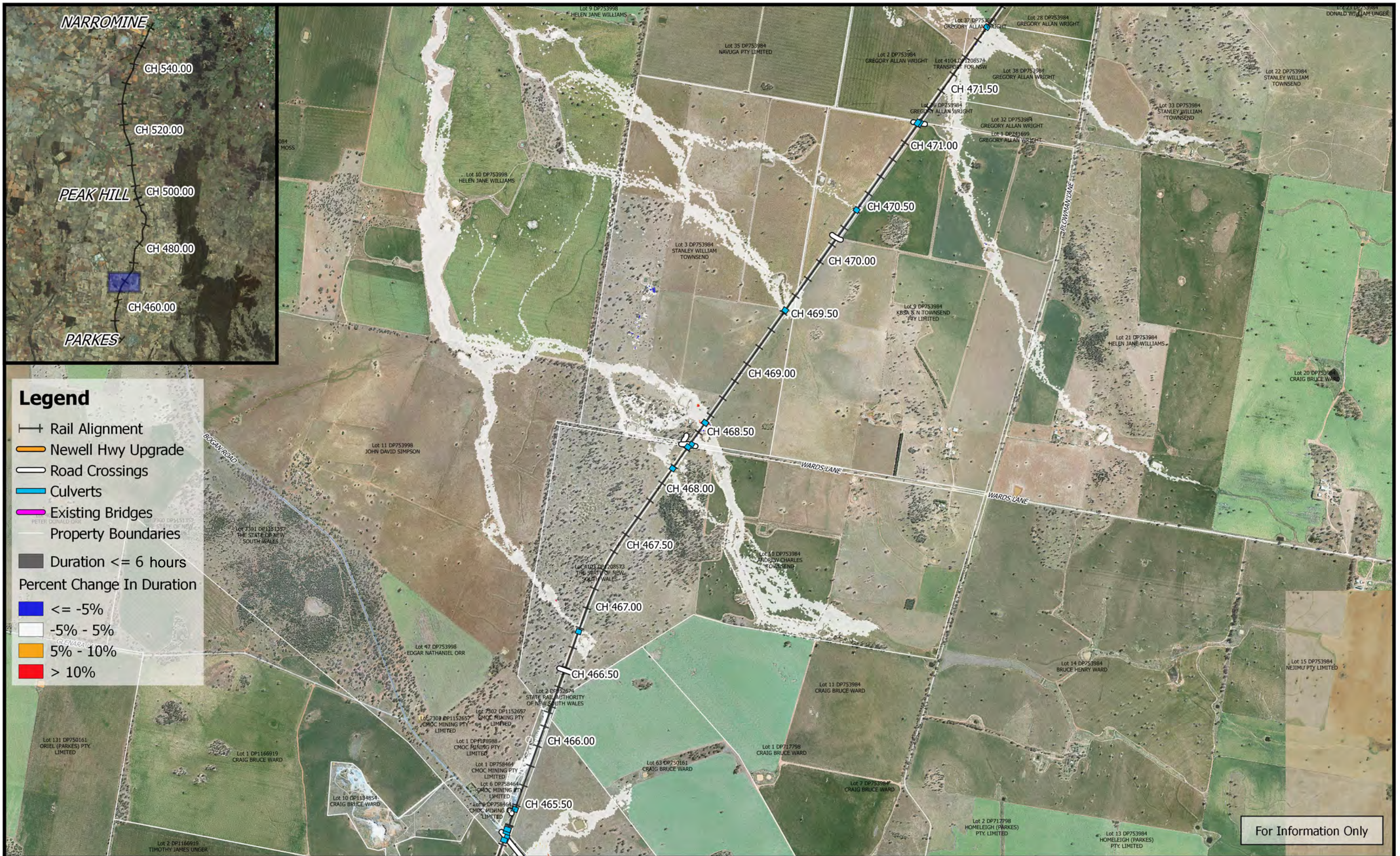


For Information Only

	<p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>		Date: 12/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="center"><b>Figure DE39DC4</b></p> <p align="center"><i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 465.00</i></p>
			Rev: A - For Information Only	
			Prepared By: YeohM	

E:\122\Synergy\2\IR\_P2N\_1\01 WIP\Flooding and Drainage\GIS Mapping\Individual Property Maps\Mapping\_Full\_Project.ags - 2.18.18







	0 250 500 750 1000 m 1:25,000		Date: 12/10/2018	<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	

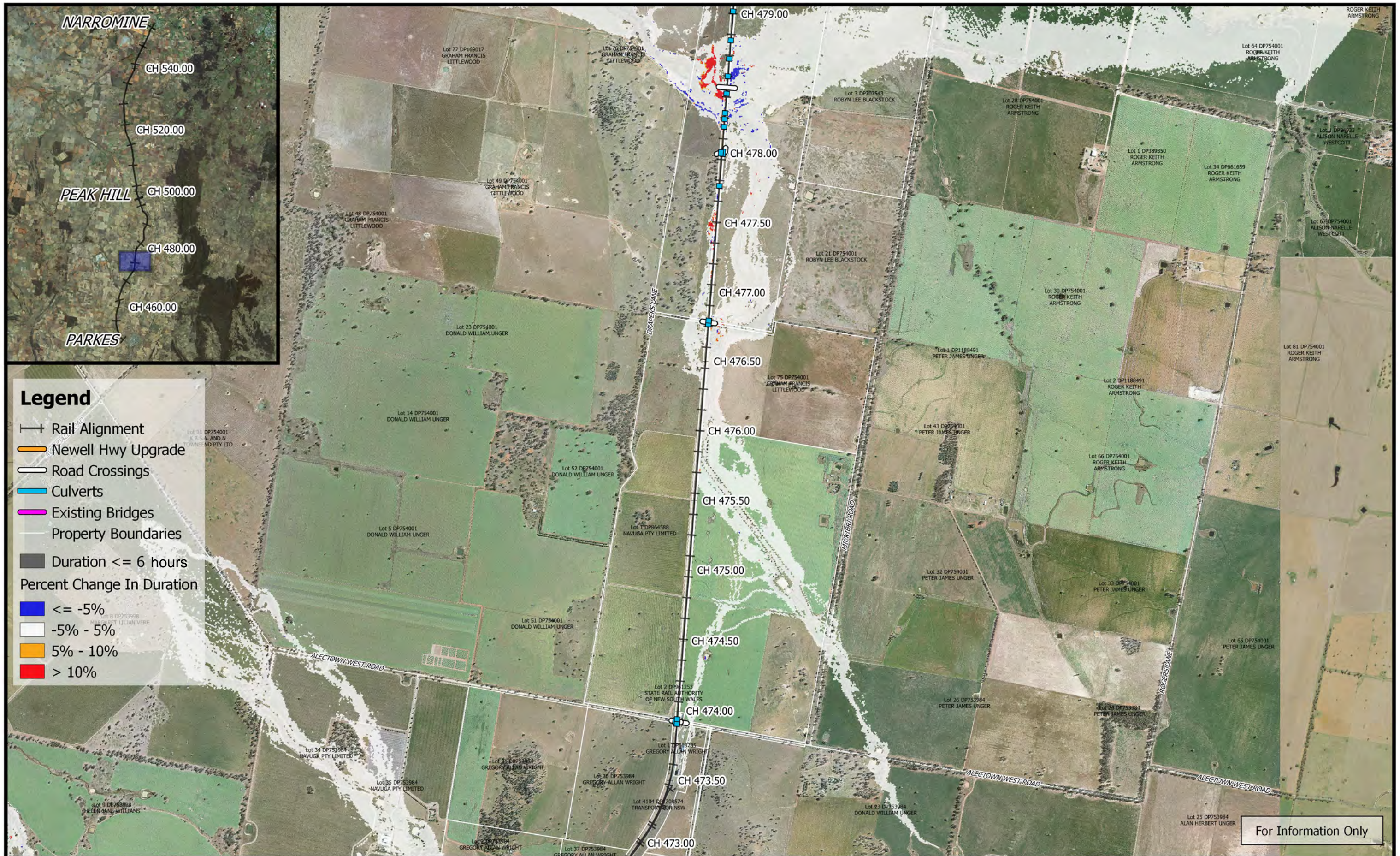






For Information Only

	<p>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: 12/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="center"><b>Figure DE39DC6</b></p> <p align="center"><i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 472.00</i></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: 12/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="center"><b>Figure DE39DC7</b></p> <p align="center"><i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 475.00</i></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: 12/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="center"><b>Figure DE39DC8</b> <i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 480.00</i></p>
			Rev: A - For Information Only	
			Prepared By: YeohM	



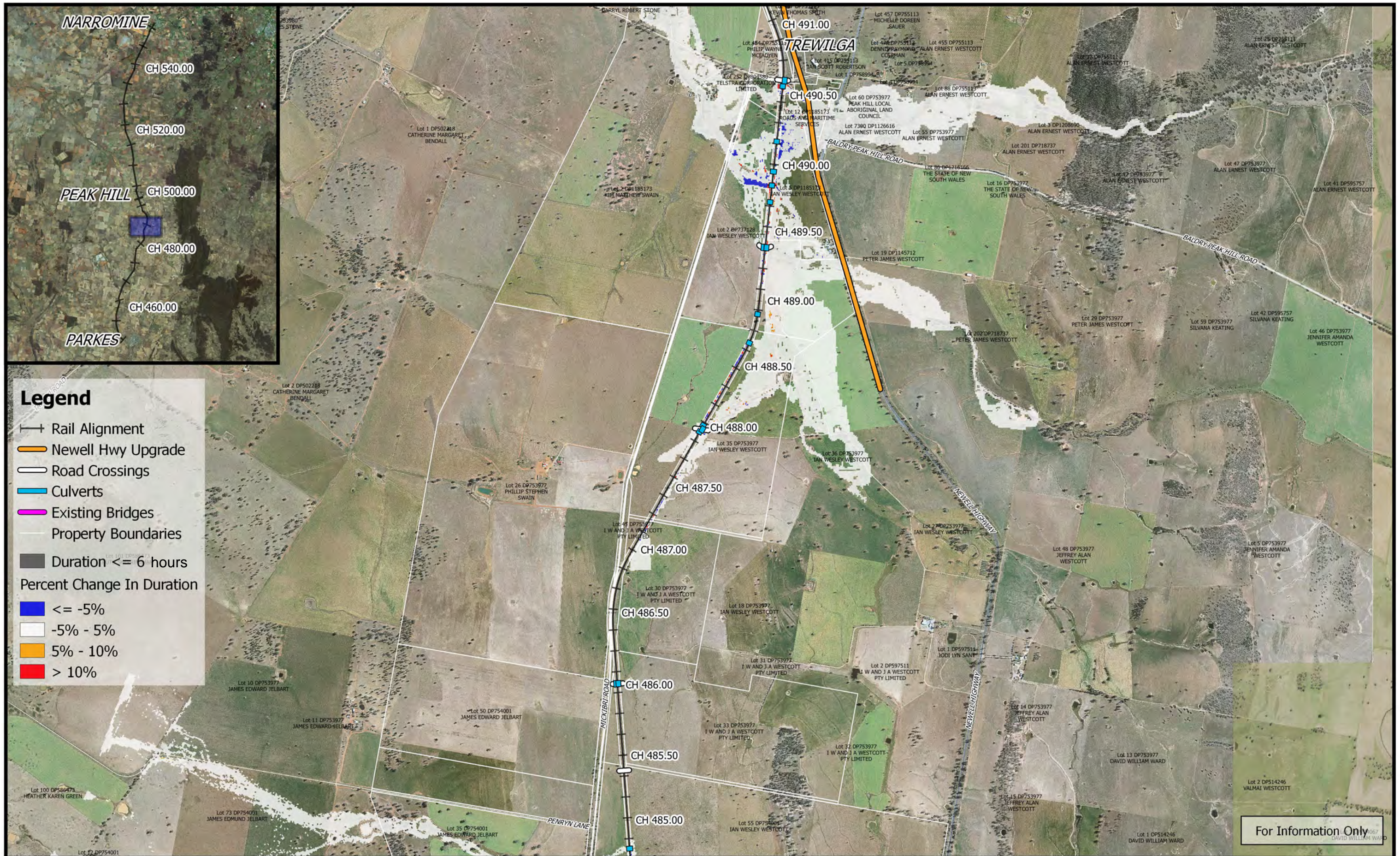


**Legend**



- +— Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Duration <= 6 hours
- Percent Change In Duration
  - <= -5%
  - -5% - 5%
  - 5% - 10%
  - > 10%

	<p>0 250 500 750 1000 m</p> <p>1:25,000</p>		<p>Date: 12/10/2018</p>	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</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><b>Figure DE39DC9</b> <i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 485.00</i></p>
<p>Prepared By: YeohM</p>				





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>		<p>Date: 12/10/2018</p>	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p>
	<p>Rev: A - For Information Only</p>		<p>Prepared By: YeohM</p>	





	<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: 12/10/2018	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p><b>Figure DE39DC11</b></p> <p><i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 492.00</i></p>
			Rev: A - For Information Only	
			Prepared By: YeohM	





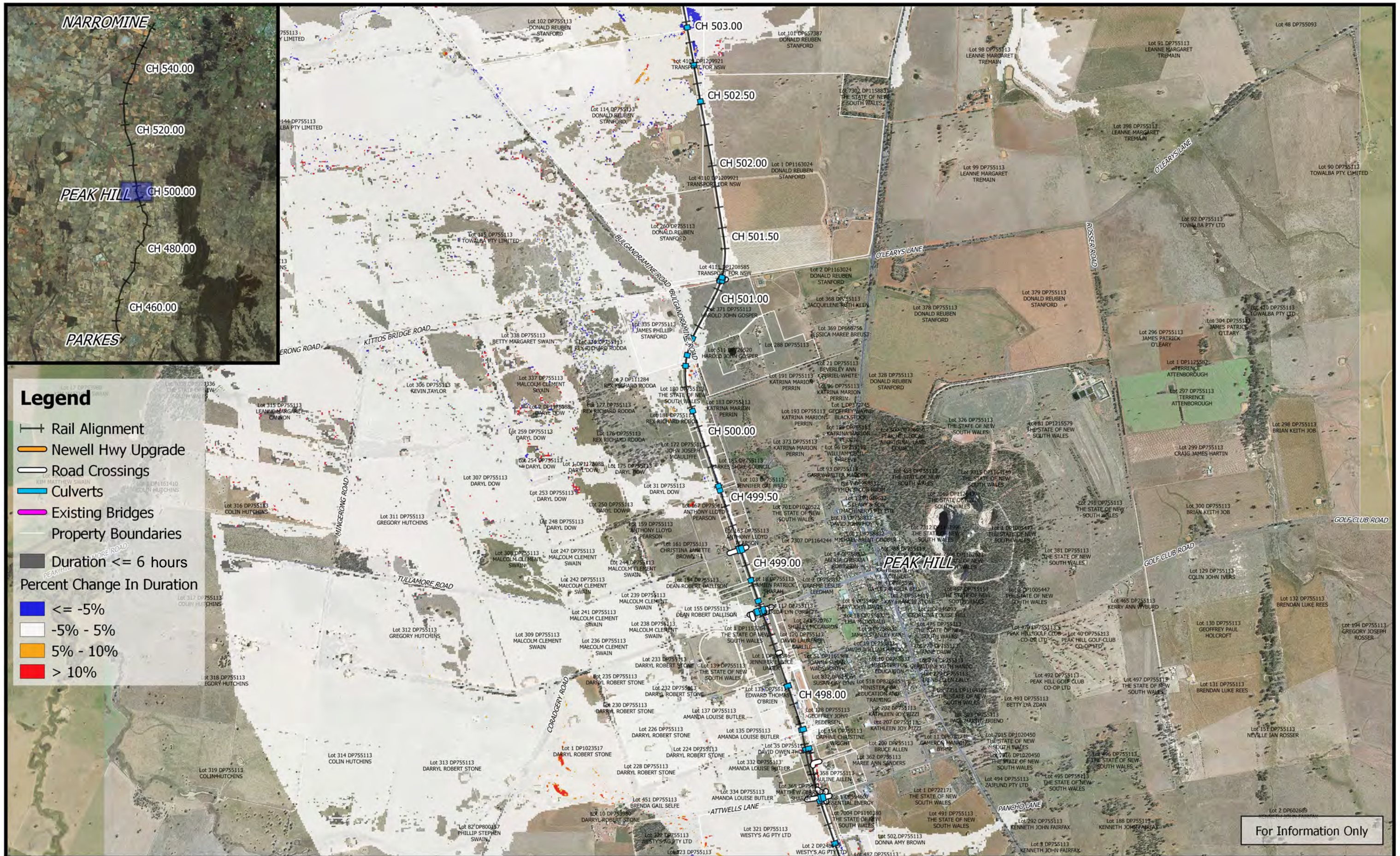
**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Duration  $\le 6$  hours
- Percent Change In Duration**
- $\le -5\%$
- $-5\% - 5\%$
- $5\% - 10\%$
- $> 10\%$

For Information Only

	<p>1:25,000</p>		Date: 12/10/2018	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p><b>Figure DE39DC12</b></p> <p><i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 495.00</i></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	

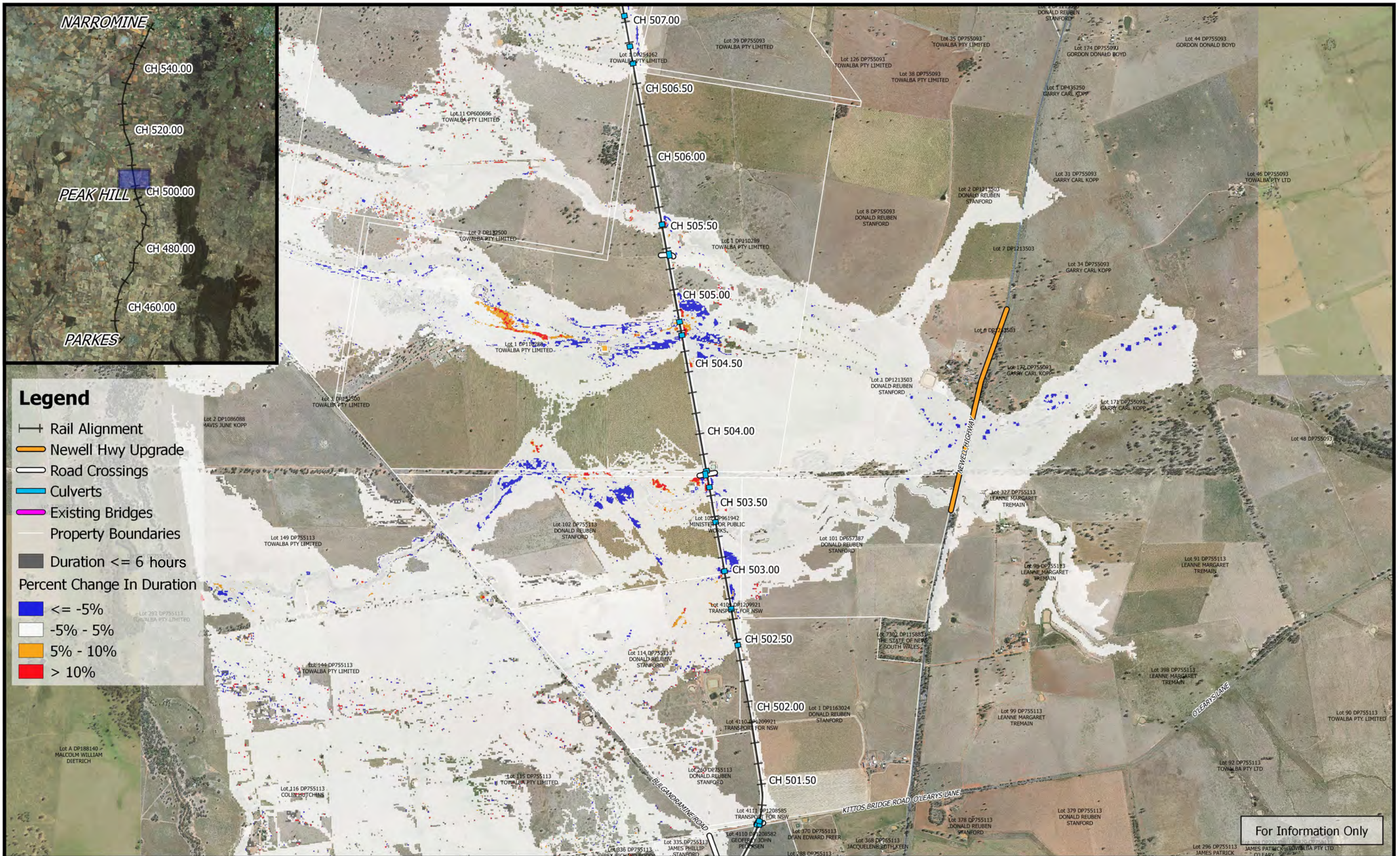




For Information Only

	<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: 12/10/2018	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p><b>Figure DE39DC13</b></p> <p><i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 500.00</i></p>
			Rev: A - For Information Only	
			Prepared By: YeohM	





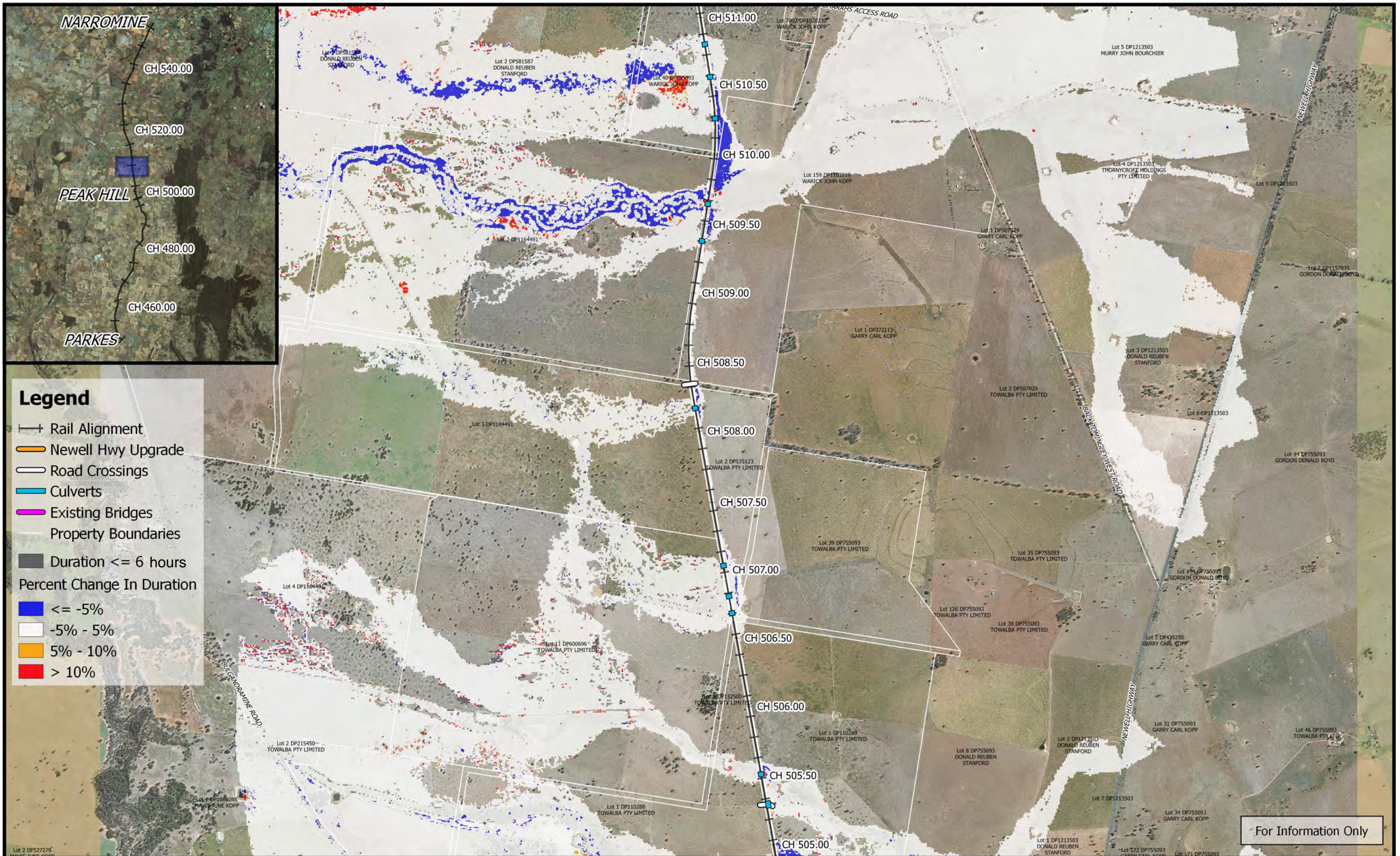
**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Duration <= 6 hours
- Percent Change In Duration**
- <= -5%
- 5% - 5%
- 5% - 10%
- > 10%

For Information Only



	<p>0 250 500 750 1000 m</p> <p>1:25,000</p>		Date: 12/10/2018	<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		



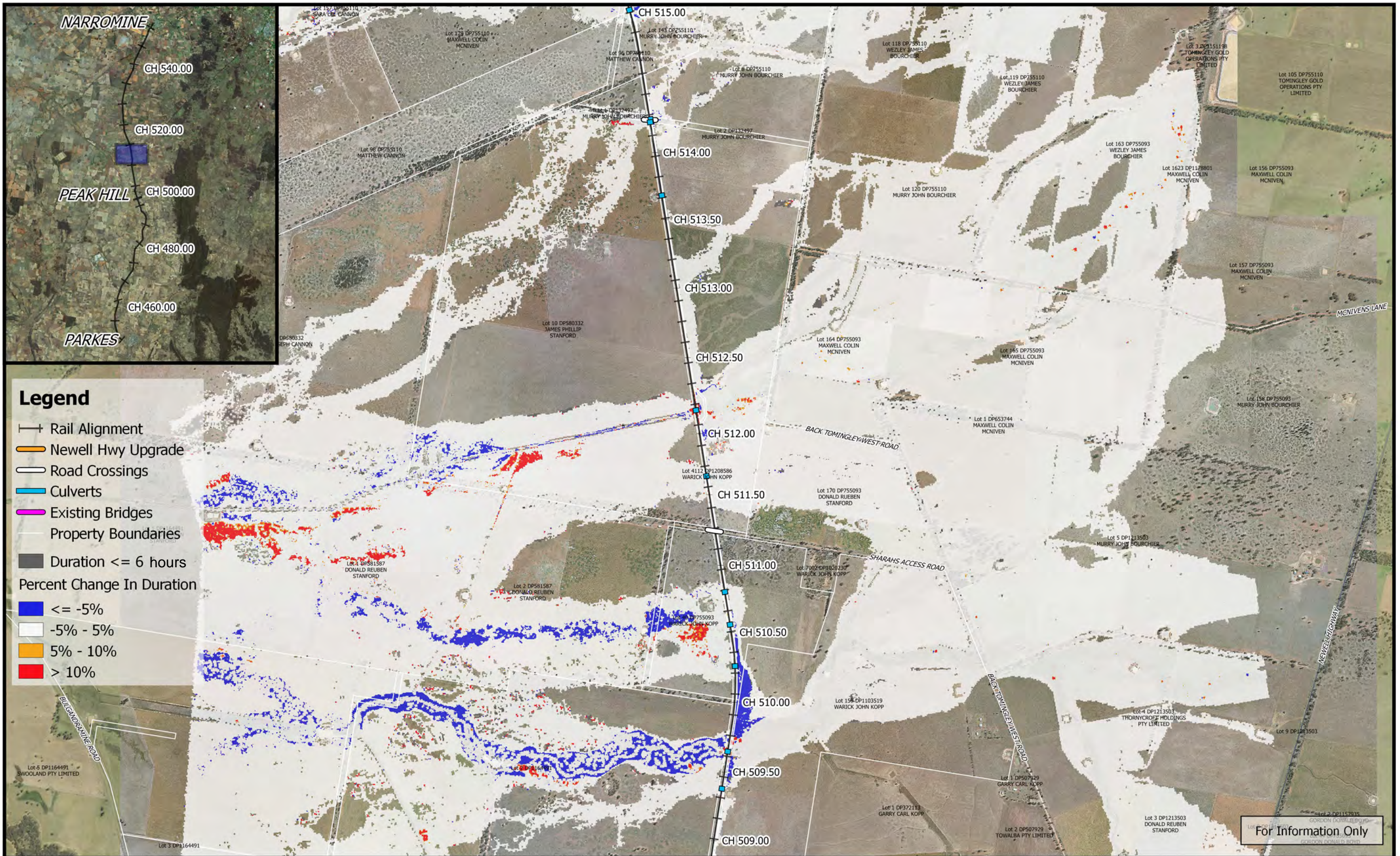


- Legend**
- +— Rail Alignment
  - Newell Hwy Upgrade
  - Road Crossings
  - Culverts
  - Existing Bridges
  - Property Boundaries
  - Duration <= 6 hours
  - Percent Change In Duration
  - <= -5%
  - -5% - 5%
  - 5% - 10%
  - > 10%

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: 12/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="right"><b>Figure DE39DC15</b></p> <p align="center"><i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 510.00</i></p>
			Rev: A - For Information Only	
Prepared By: YeohM				





**Legend**

- +— Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Duration <= 6 hours

**Percent Change In Duration**

- <= -5%
- -5% - 5%
- 5% - 10%
- > 10%

	<p>1:25,000</p>		Date: 12/10/2018	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p><b>Figure DE39DC16</b> <i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 512.00</i></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	





**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Duration <= 6 hours
- Percent Change In Duration**
- <= -5%
- 5% - 5%
- 5% - 10%
- > 10%

For Information Only

	<p>0 250 500 750 1000 m</p> <p>1:25,000</p>	 	Date: 12/10/2018	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p><b>Figure DE39DC17</b> <i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 515.00</i></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		

E:\I2d\Synergy\2\IR P2N\_1\01 WPI\Flooding and Drainage\GIS Mapping\Individual Property Maps\Mapping\_Full\_Project.ags - 2.18.18





**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Duration  $\leq$  6 hours
- Percent Change In Duration**
- $\leq -5\%$
- $-5\% - 5\%$
- $5\% - 10\%$
- $> 10\%$

	 1:25,000		Date: 12/10/2018	<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	





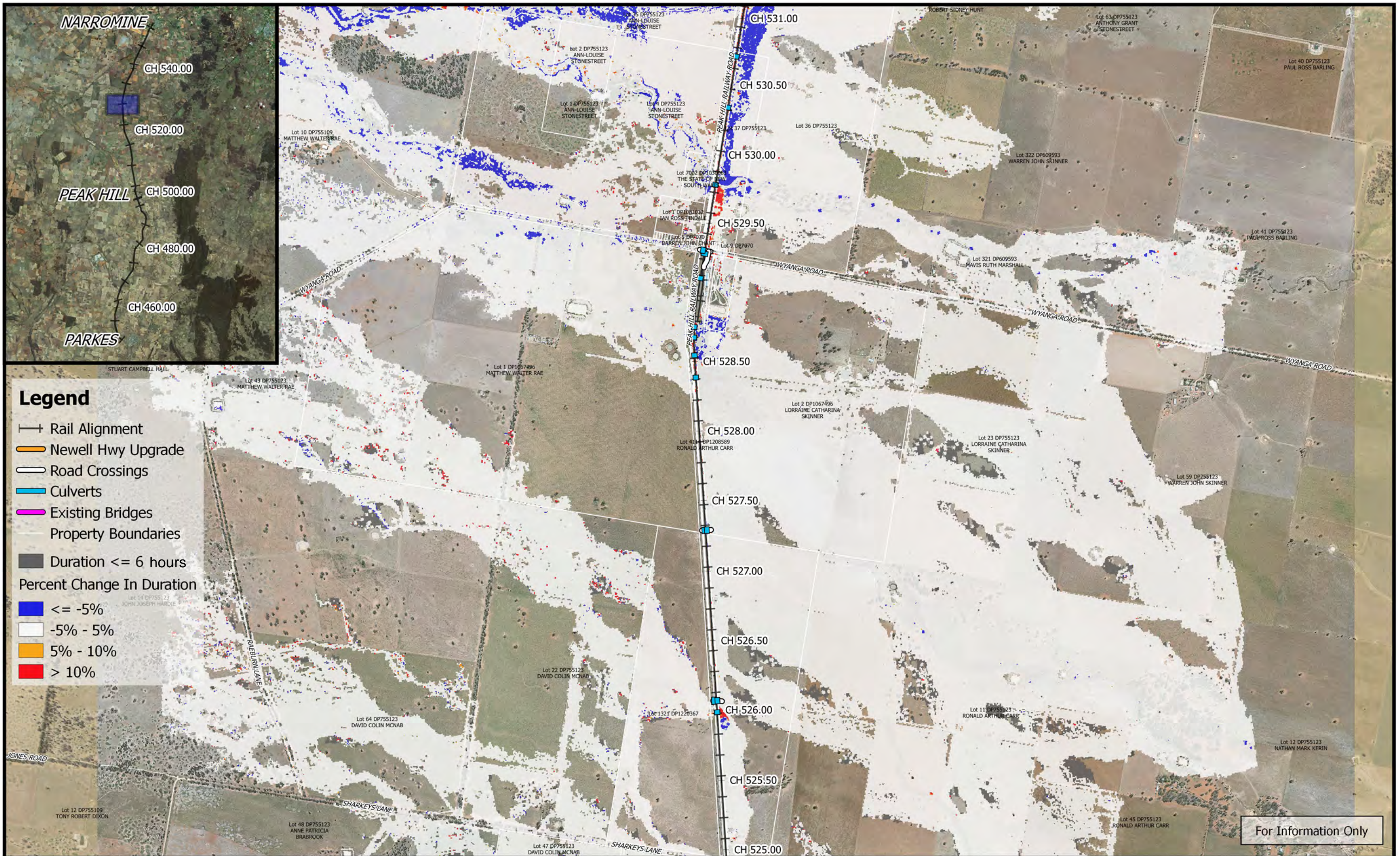
**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Duration <= 6 hours
- Percent Change In Duration**
- <= -5%
- 5% - 5%
- 5% - 10%
- > 10%



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: 12/10/2018	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p><b>Figure DE39DC19</b> <i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 525.00</i></p>
			Rev: A - For Information Only	

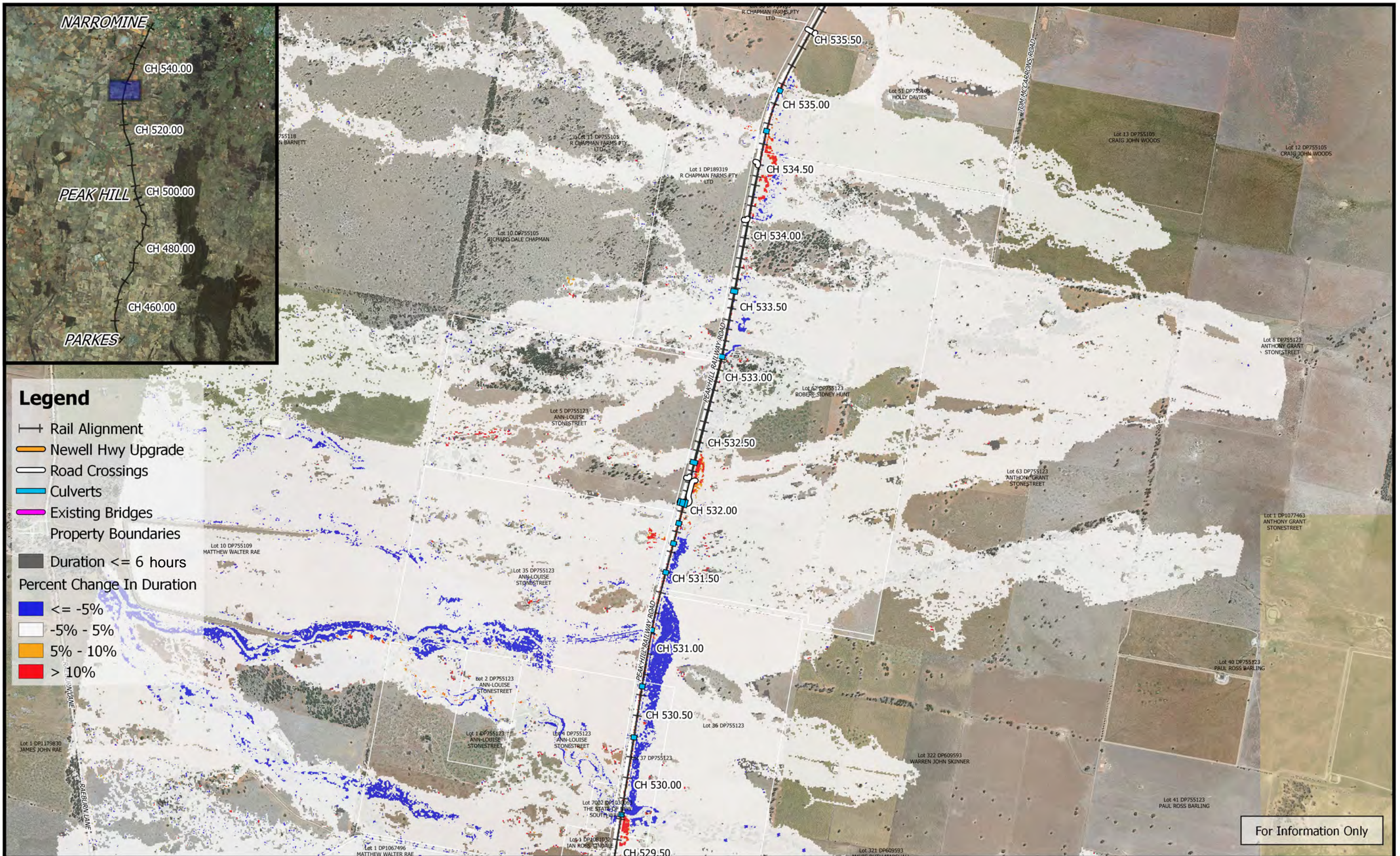




For Information Only

	<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: 12/10/2018	<p align="center"><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="center"><b>Figure DE39DC20</b></p> <p align="center"><i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 530.00</i></p>
			Rev: A - For Information Only	
			Prepared By: YeohM	





**Legend**

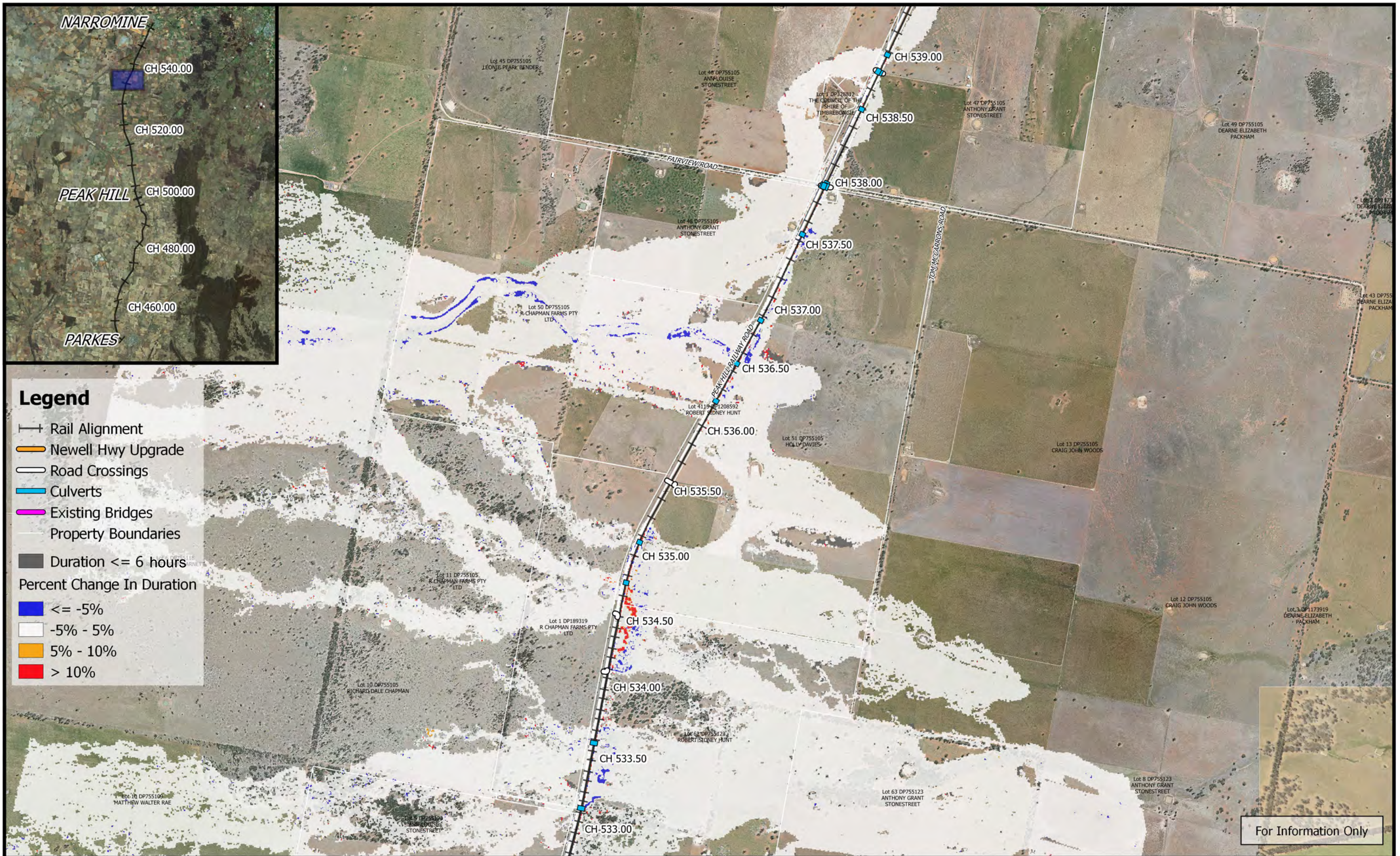
- +— Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Duration <= 6 hours
- Percent Change In Duration
  - <= -5%
  - -5% - 5%
  - 5% - 10%
  - > 10%

For Information Only

	<p>0 250 500 750 1000 m</p> <p>1:25,000</p>		Date: 12/10/2018	<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		

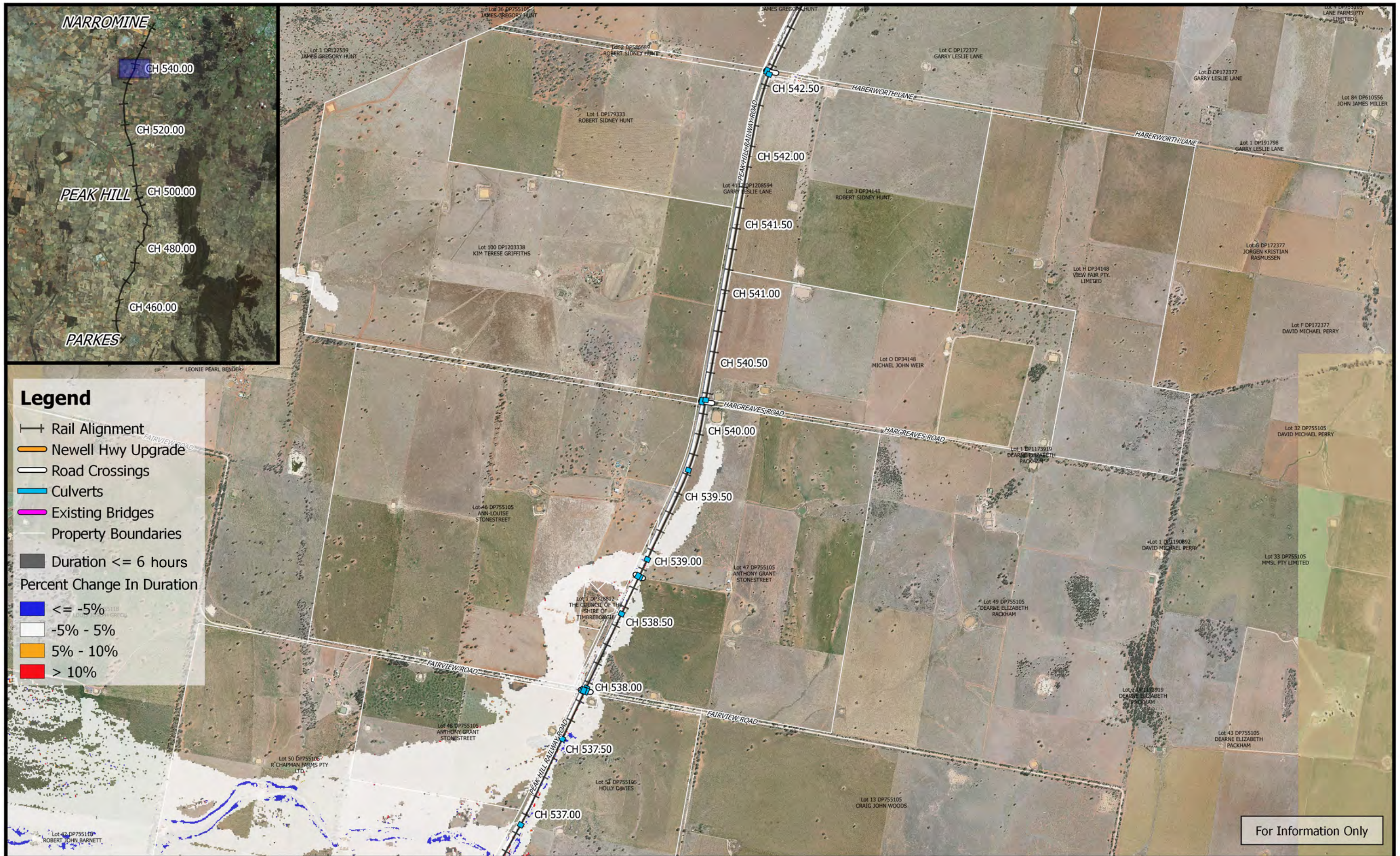
E:\12d\Synergy\2\IR P2N\_1\01 WIP\Flooding and Drainage\GIS Mapping\Individual Property Maps\Mapping\_Full\_Project.gps - 2.18.18







	 1:25,000	 MOTT MACDONALD	Date: 12/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results  <b>Figure DE39DC22</b> <i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 535.00</i>
	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: 12/10/2018	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</p> <p><b>Figure DE39DC23</b> <i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 540.00</i></p>
			Rev: A - For Information Only	
			Prepared By: YeohM	





**Legend**

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Duration <= 6 hours

**Percent Change In Duration**

- <= -5%
- 5% - 5%
- 5% - 10%
- > 10%


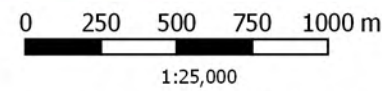

For Information Only

	<p>0 250 500 750 1000 m</p> <p>1:25,000</p>	<p><b>M M</b> MOTT MACDONALD</p>	Date: 12/10/2018	<p><b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results</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><i>39% AEP Percentage Change In Duration For Flood Depths &gt;200mm - CH 545.00</i></p>				<p><b>Figure DE39DC24</b></p>





For Information Only

	 <p>Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3</p>		Date: 12/10/2018	<b>Inland Rail - Parkes to Narromine</b> IFC - Cross Drainage Flood Impact Assessment Results
			Rev: A - For Information Only	
			Prepared By: YeohM	