

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





	<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>Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results</p> <p>Figure DE1VC1 1% AEP 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 - 2.18.18



Legend

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

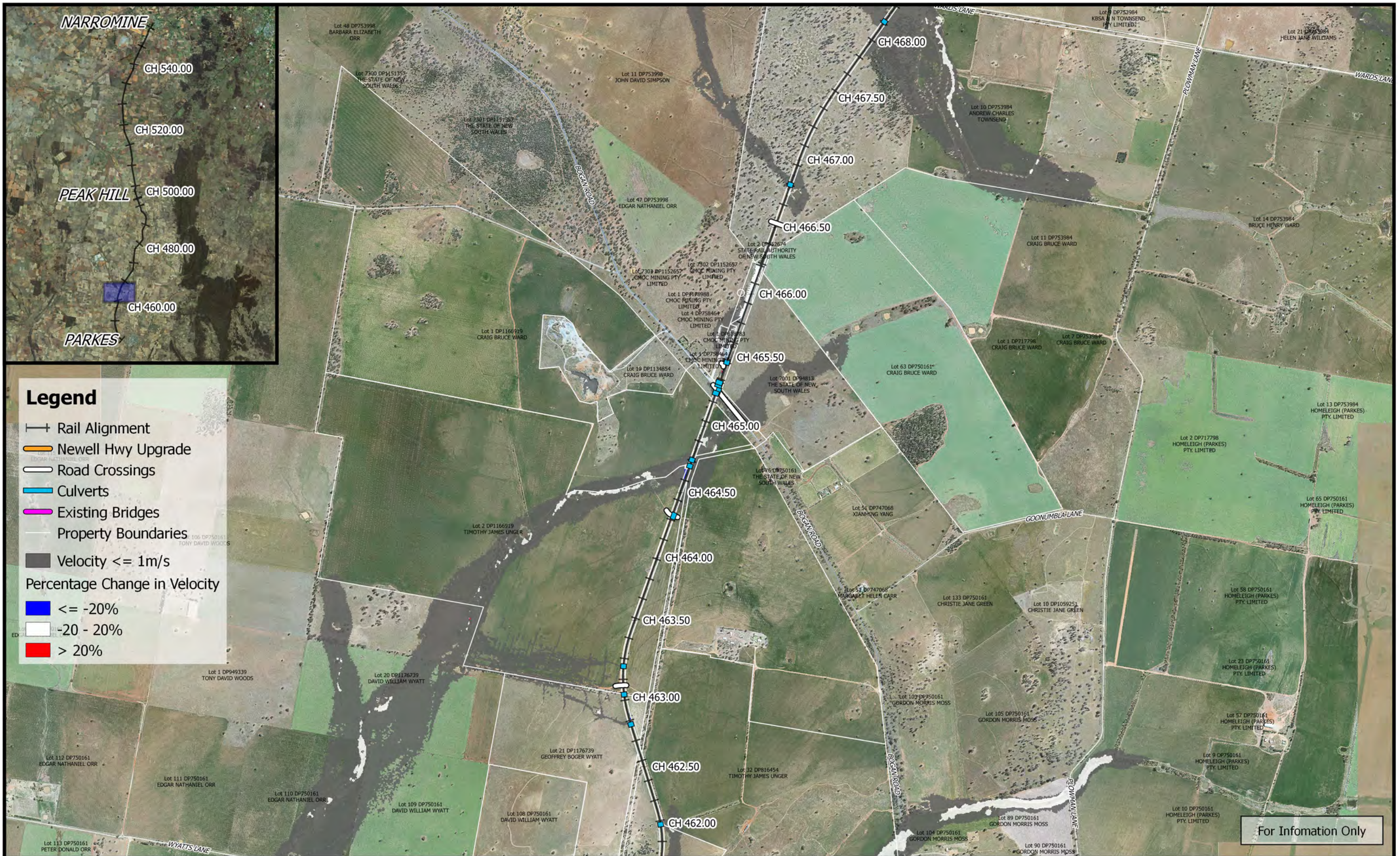
For Information Only

	<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>Inland Rail - Parkes to Narromine</p> <p>IFC - Cross Drainage Flood Impact Assessment Results</p> <p>Figure DE1VC2</p> <p>1% AEP Percentage Change In Velocity - CH 455.00</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>Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results</p> <p>Figure DE1VC3 1% AEP 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">Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="right">Figure DE1VC4 <i>1% AEP Percentage Change In Velocity - CH 465.00</i></p>
			Rev: A - For Information Only	
			Prepared By: YeohM	


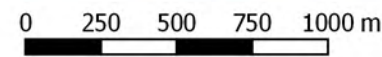



For Information Only

	<p>1:25,000</p>		Date: 15/10/2018	<p align="center">Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="right">Figure DE1VC5 <i>1% AEP Percentage Change In Velocity - CH 470.00</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>			


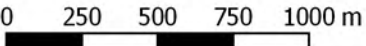



For Information Only

	 1:25,000		Date: 15/10/2018	Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results Figure DE1VC6 <i>1% AEP Percentage Change In Velocity - CH 472.00</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		


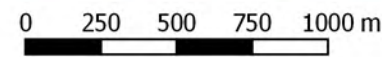




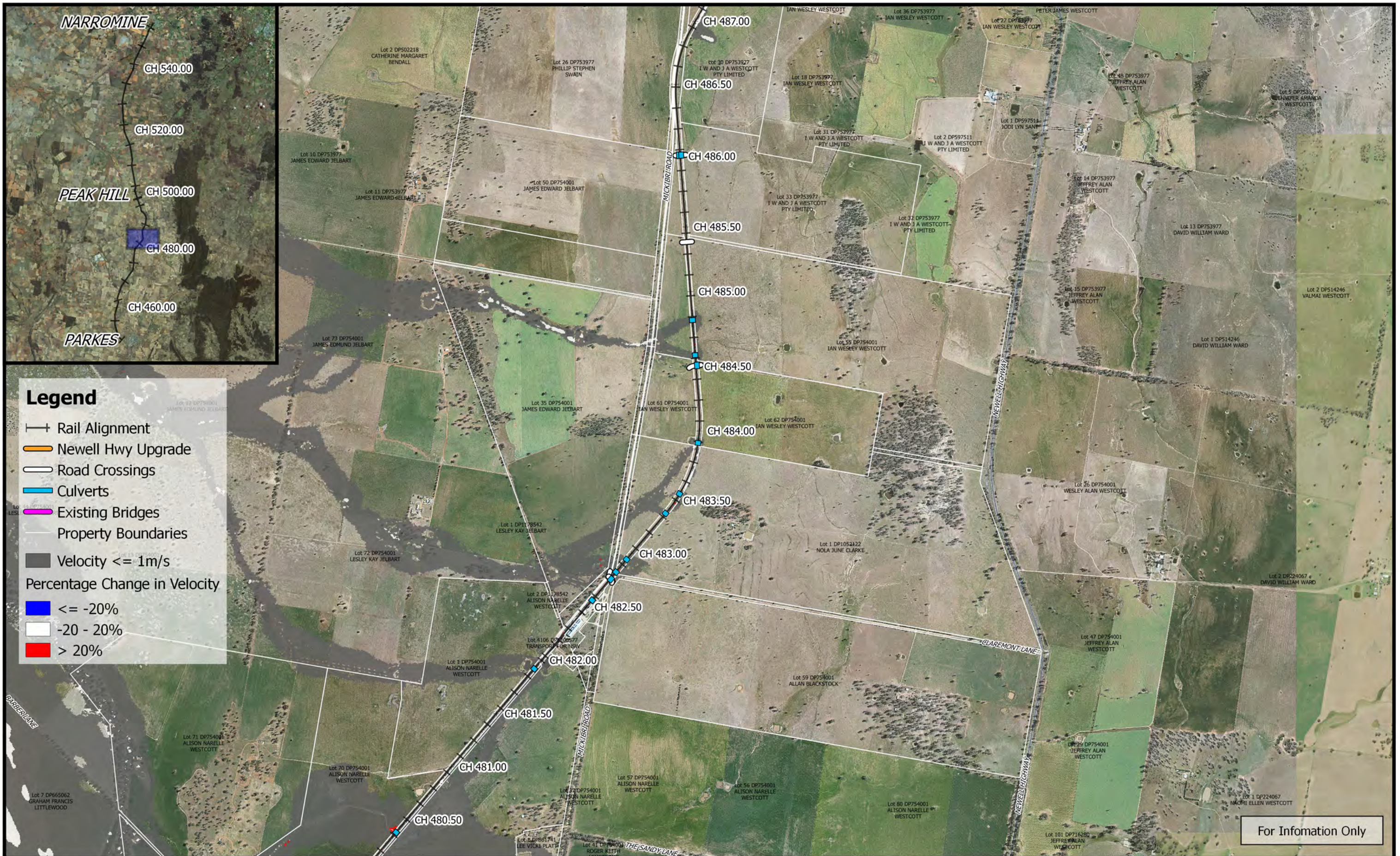
For Information Only

	 1:25,000		Date: 15/10/2018	Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results Figure DE1VC7 <i>1% AEP Percentage Change In Velocity - CH 475.00</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

	 1:25,000	 	Date: 15/10/2018	<p align="center">Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="right">Figure DE1VC8 <i>1% AEP Percentage Change In Velocity - CH 480.00</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			



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	Inland Rail - Parkes to Narromine 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	Inland Rail - Parkes to Narromine 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**
- $\leq -20\%$
- $-20 - 20\%$
- $> 20\%$

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>M MOTT MACDONALD</p>	<p>Date: 15/10/2018</p> <p>Rev: A - For Information Only</p> <p>Prepared By: YeohM</p>	<p>Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results</p> <p>Figure DE1VC11 <i>1% AEP Percentage Change In Velocity - CH 492.00</i></p>
--	--	--	--	---



	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 Rev: A - For Information Only Prepared By: YeohM	Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results Figure DE1VC12 1% AEP Percentage Change In Velocity - CH 495.00
---	---	--	---	---




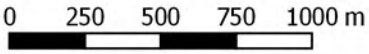

	 1:25,000		Date: 15/10/2018	Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results Figure DE1VC13 1% AEP Percentage Change In Velocity - CH 500.00
	Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Rev: A - For Information Only	
	Prepared By: YeohM			



	0 250 500 750 1000 m 1:25,000		Date: 15/10/2018	Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results Figure DE1VC14 <i>1% AEP Percentage Change In Velocity - CH 505.00</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

	 1:25,000		Date: 15/10/2018	Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results Figure DE1VC15 <i>1% AEP Percentage Change In Velocity - CH 510.00</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>1:25,000</p>		Date: 15/10/2018	<p align="center">Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="right">Figure DE1VC16 1% AEP Percentage Change In Velocity - CH 512.00</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 $\leq 1\text{m/s}$
- Percentage Change in Velocity**
- $\leq -20\%$
- $-20 - 20\%$
- $> 20\%$

For Information Only

	<p>0 250 500 750 1000 m</p> <p>1:25,000</p>	 	Date: 15/10/2018	<p>Inland Rail - Parkes to Narromine</p> <p>IFC - Cross Drainage Flood Impact Assessment Results</p> <p>Figure DE1VC17</p> <p><i>1% AEP Percentage Change In Velocity - 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:\2d\Synergy\2\IR_P2N_1\01 WPI\Flooding and Drainage\GIS Mapping\Individual Property Maps\Mapping_Full_Project.gis - 2.18.18



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">Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="right">Figure DE1VC18 <i>1% AEP Percentage Change In Velocity - CH 520.00</i></p>
	Rev: A - For Information Only			
	Prepared By: YeohM			



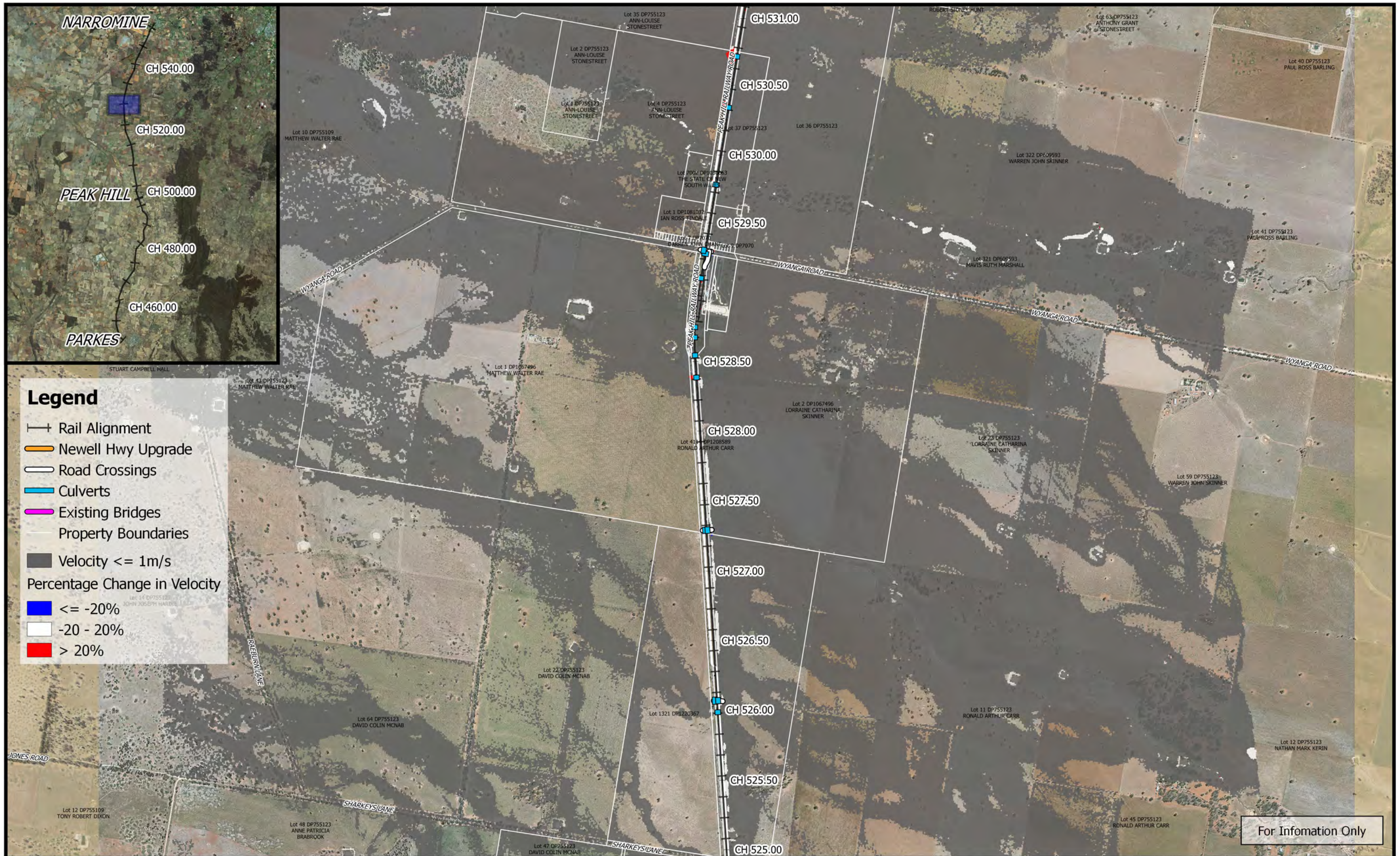
Legend

- 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		Date: 15/10/2018	Inland Rail - Parkes to Narromine 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				

E:\L2d\Synergy\2\IR_P2N_1\01 WIP\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
- Velocity <= 1m/s

Percentage Change in Velocity

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

For Information Only

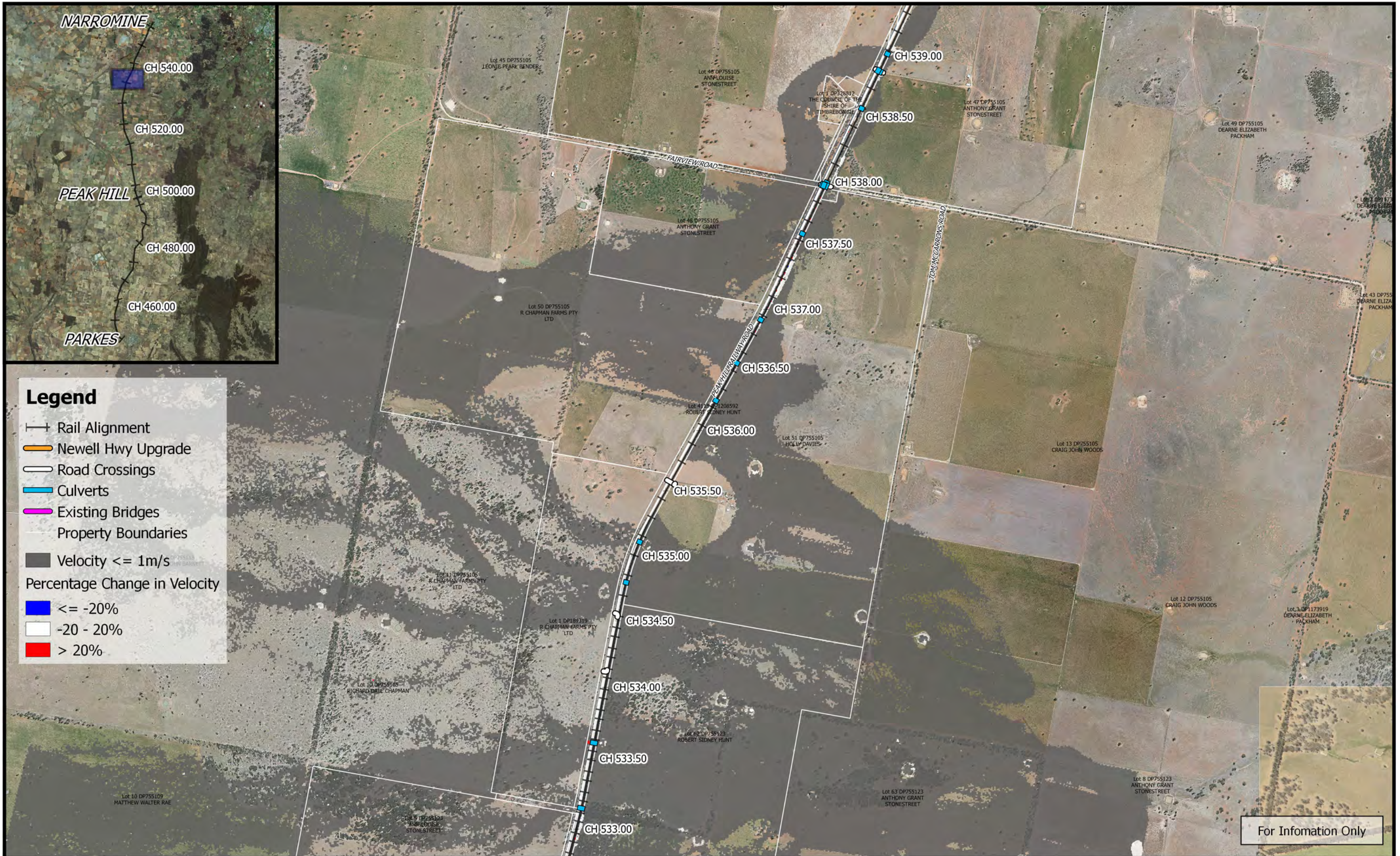
	<p>0 250 500 750 1000 m</p> <p>1:25,000</p>		Date: 15/10/2018	<p>Inland Rail - Parkes to Narromine</p> <p>IFC - Cross Drainage Flood Impact Assessment Results</p>
	Coordinate system: GDA 1994 MGA Zone 55 Inset Aerial Source: NSW Six Map Scale ratio correct when printed at A3		Rev: A - For Information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



Legend

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

	<p>1:25,000</p>		Date: 15/10/2018	<p>Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results</p> <p>Figure DE1VC21 <i>1% AEP Percentage Change In Velocity - CH 533.00</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		



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	Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results Figure DE1VC22 <i>1% AEP Percentage Change In Velocity - 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		



Legend


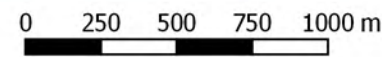

- Rail Alignment
- Newell Hwy Upgrade
- Road Crossings
- Culverts
- Existing Bridges
- Property Boundaries
- Velocity $\le 1\text{m/s}$
- Percentage Change in Velocity**
- $\le -20\%$
- $-20 - 20\%$
- $> 20\%$

For Information Only

	 1:25,000		Date: 15/10/2018	<p style="margin: 0;">Inland Rail - Parkes to Narromine</p> <p style="margin: 0;">IFC - Cross Drainage Flood Impact Assessment Results</p> <p style="margin: 0;">Figure DE1VC23</p> <p style="margin: 0;"><i>1% AEP Percentage Change In Velocity - CH 540.00</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		


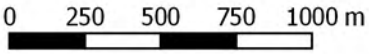



For Information Only

	 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 Rev: A - For Information Only Prepared By: YeohM	<p align="center">Inland Rail - Parkes to Narromine</p> <p align="center">IFC - Cross Drainage Flood Impact Assessment Results</p> <p align="right">Figure DE1VC24</p> <p align="right"><i>1% AEP Percentage Change In Velocity - CH 545.00</i></p>
---	--	--	---	---



For Information Only

	 1:25,000		Date: 15/10/2018	Inland Rail - Parkes to Narromine IFC - Cross Drainage Flood Impact Assessment Results Figure DE1VC25 <i>1% AEP Percentage Change In Velocity - CH 550.00</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			