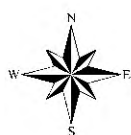
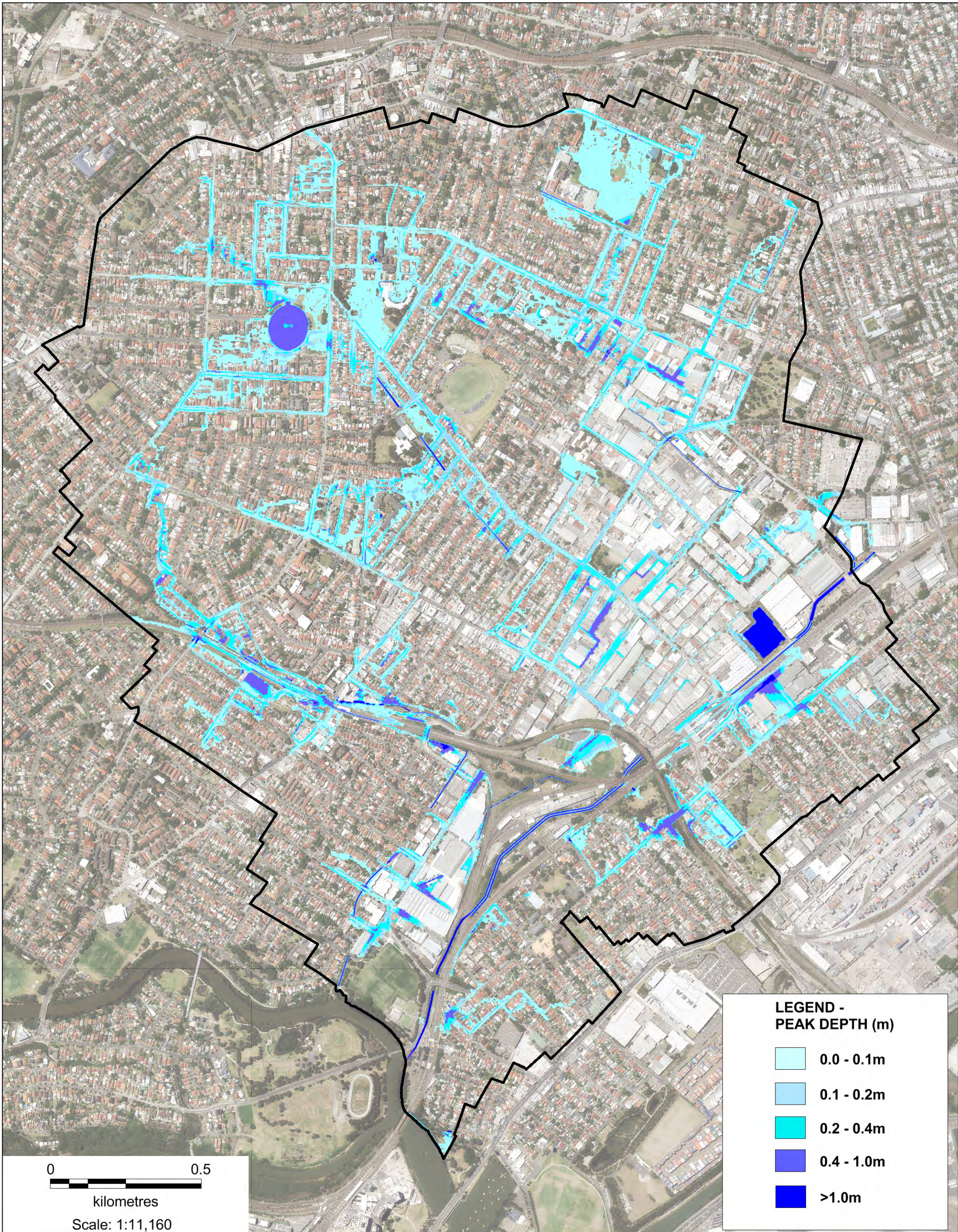


**1% AEP Flood Depth
FM9.1**

MARRICKVILLE VALLEY FRMS&P



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Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56

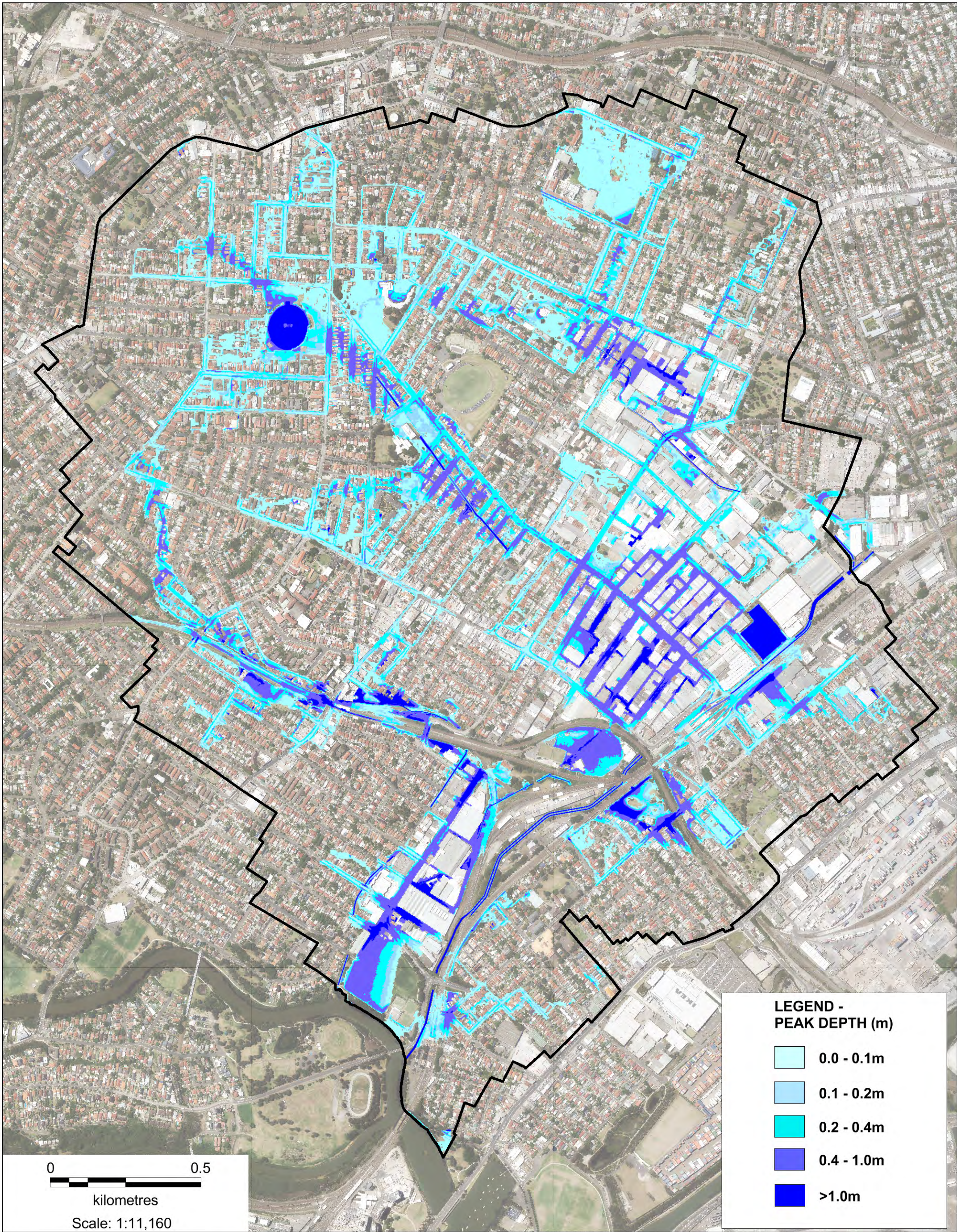


**2 Year ARI Flood Depth
FM10.1**

MARRICKVILLE VALLEY FRMS&P



Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56

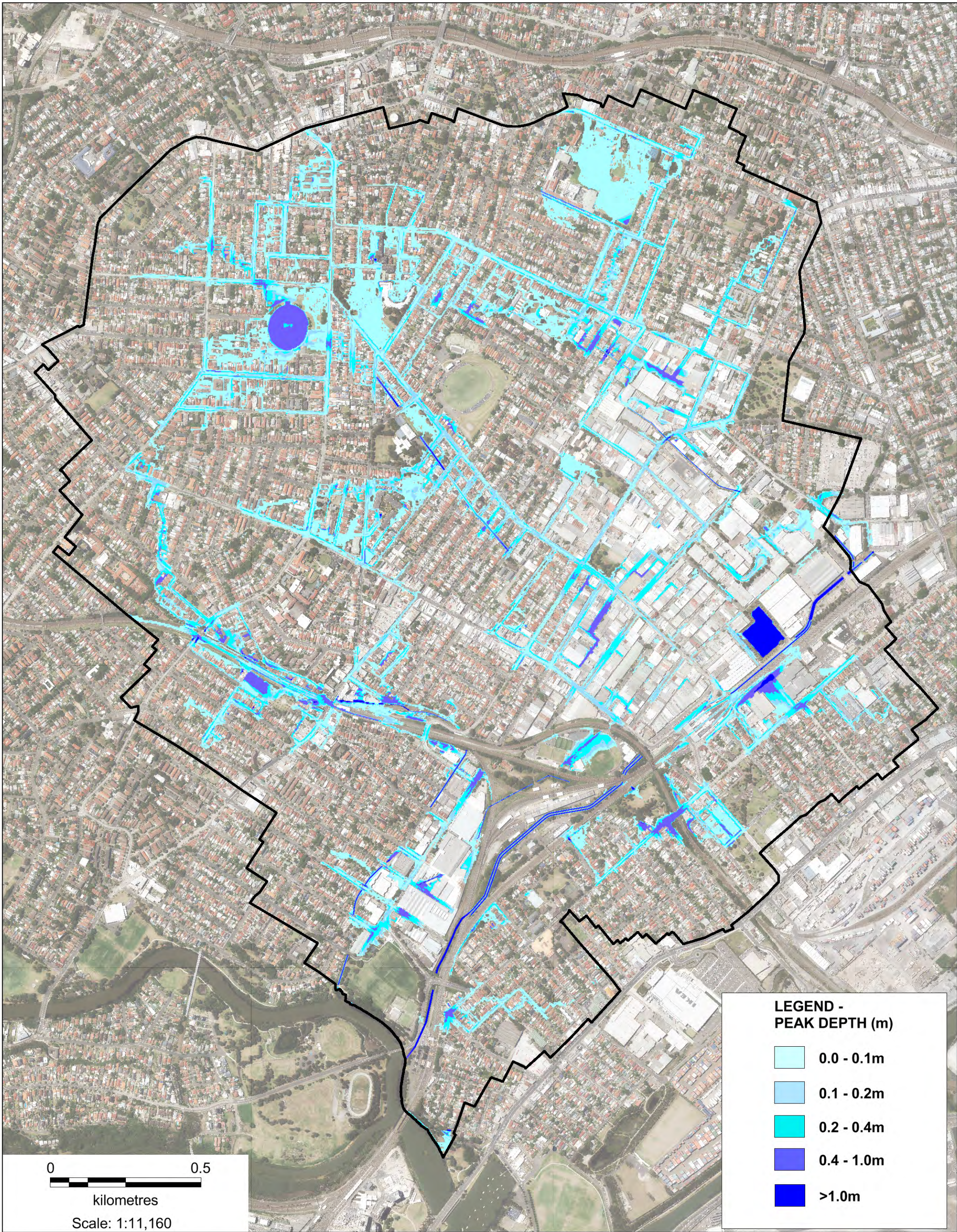


**1% AEP Flood Depth
FM10.1**

MARRICKVILLE VALLEY FRMS&P



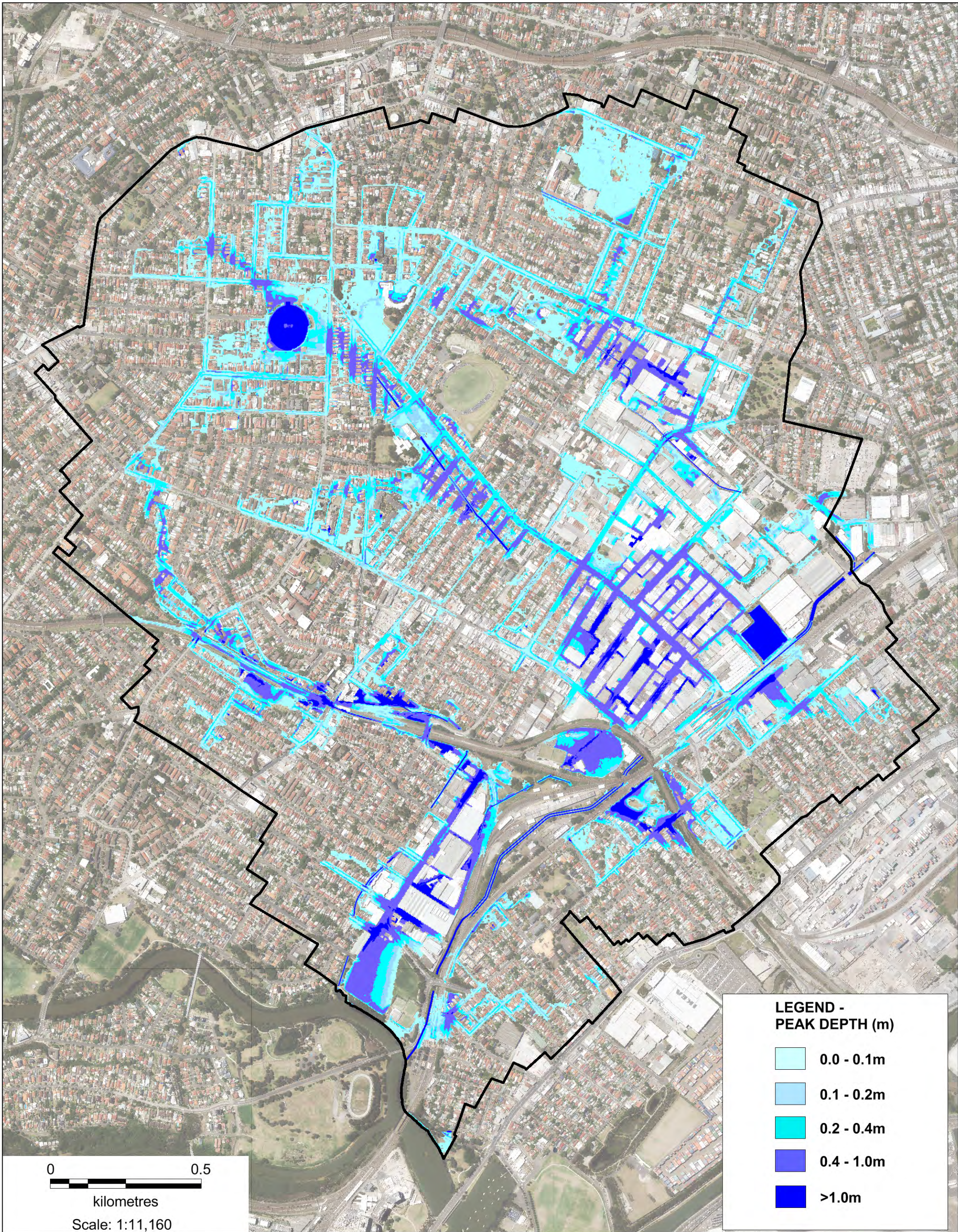
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**2 Year ARI Flood Depth
FM10.4**
MARRICKVILLE VALLEY FRMS&P



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**LEGEND -
PEAK DEPTH (m)**

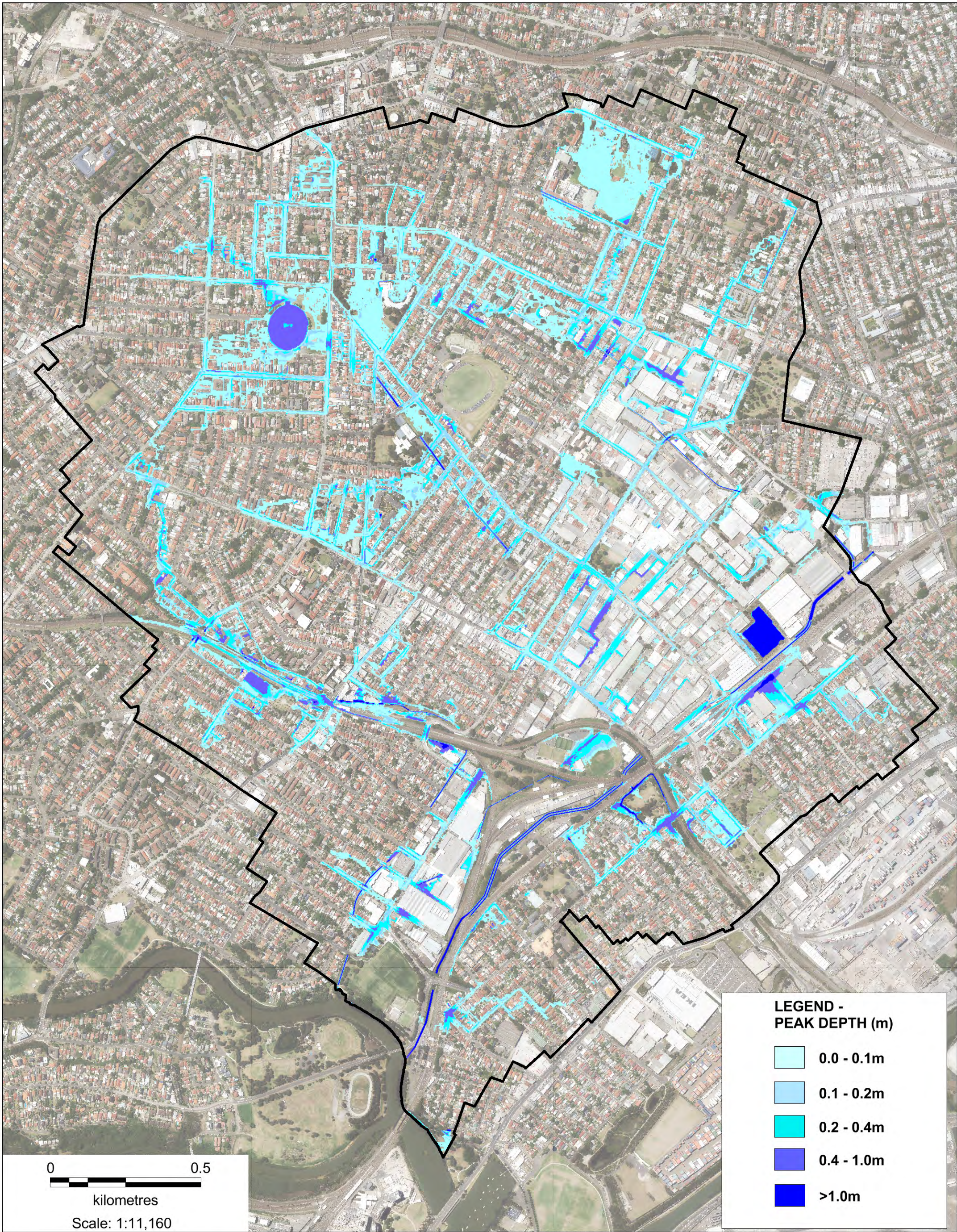
- 0.0 - 0.1m
- 0.1 - 0.2m
- 0.2 - 0.4m
- 0.4 - 1.0m
- >1.0m



**1% AEP Flood Depth
FM10.4**
MARRICKVILLE VALLEY FRMS&P



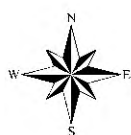
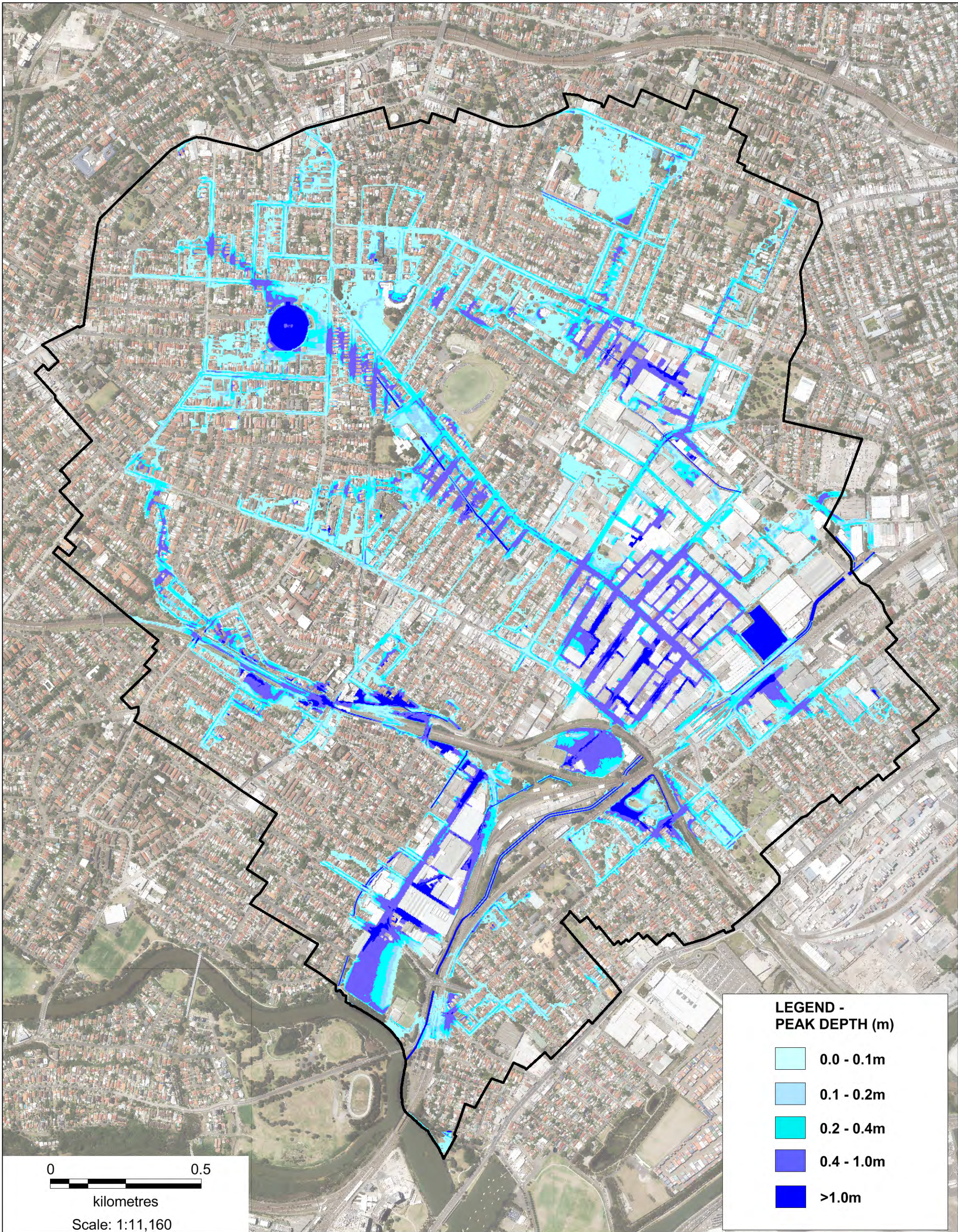
Map Produced by Cardno NSW/ACT Pty Ltd
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Coordinate System: MGA Zone 56



**2 Year ARI Flood Depth
FM11.1 & FM11.2**
MARRICKVILLE VALLEY FRMS&P



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Date: May 2017
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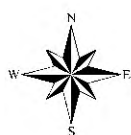
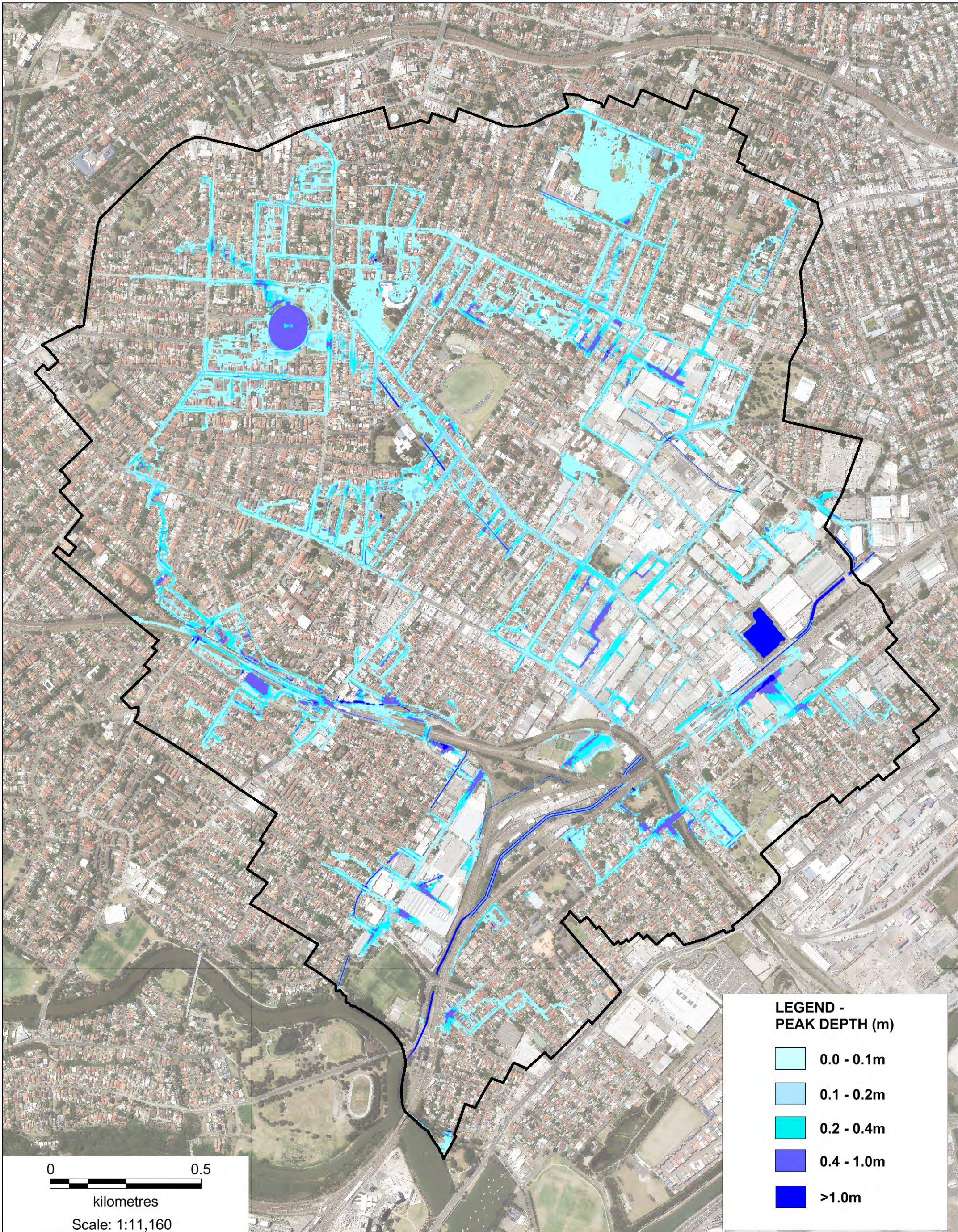


**1% AEP Flood Depth
FM11.1 & FM11.2**

MARRICKVILLE VALLEY FRMS&P



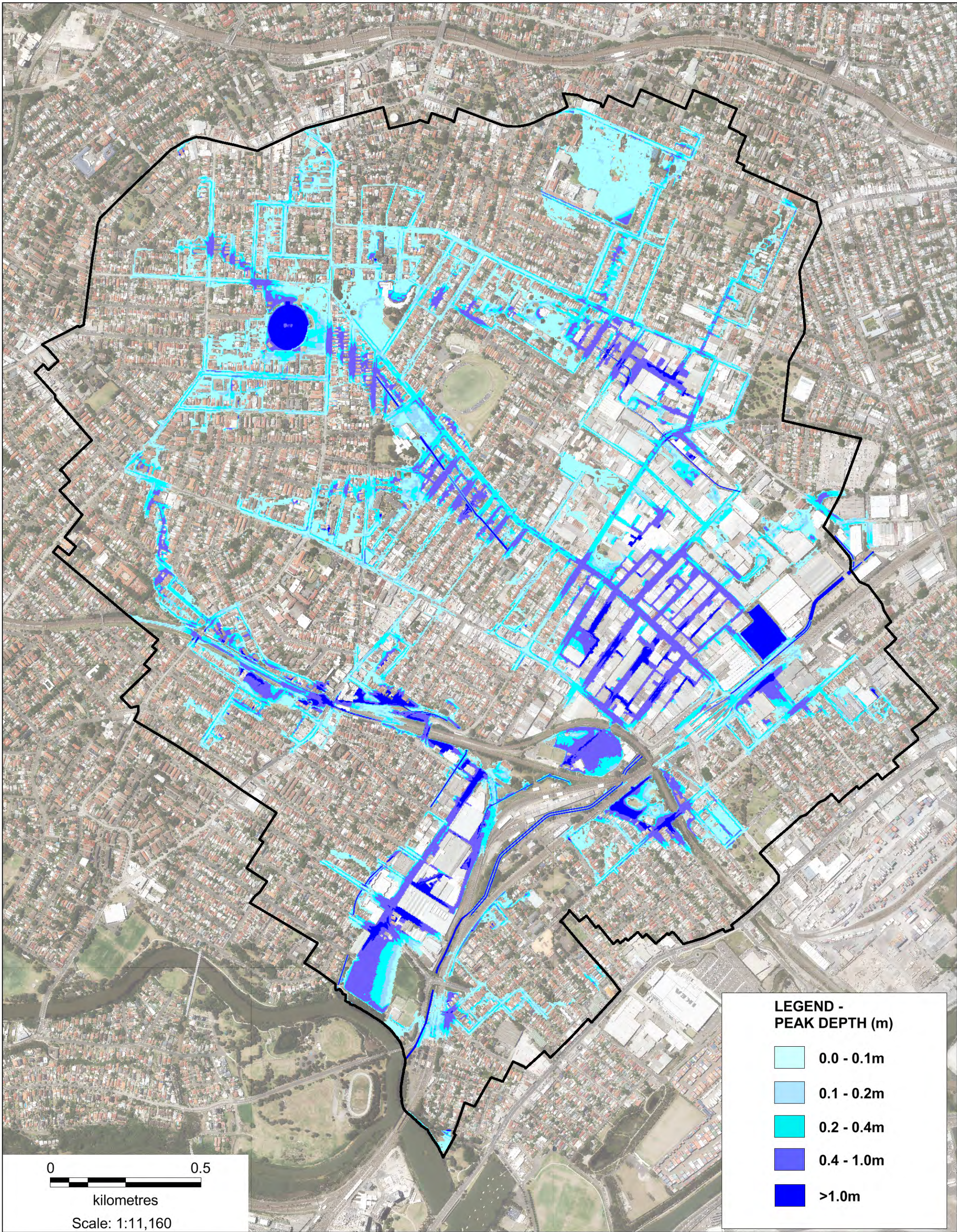
Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**2 Year ARI Flood Depth
FM11.3**
MARRICKVILLE VALLEY FRMS&P



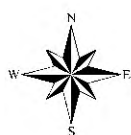
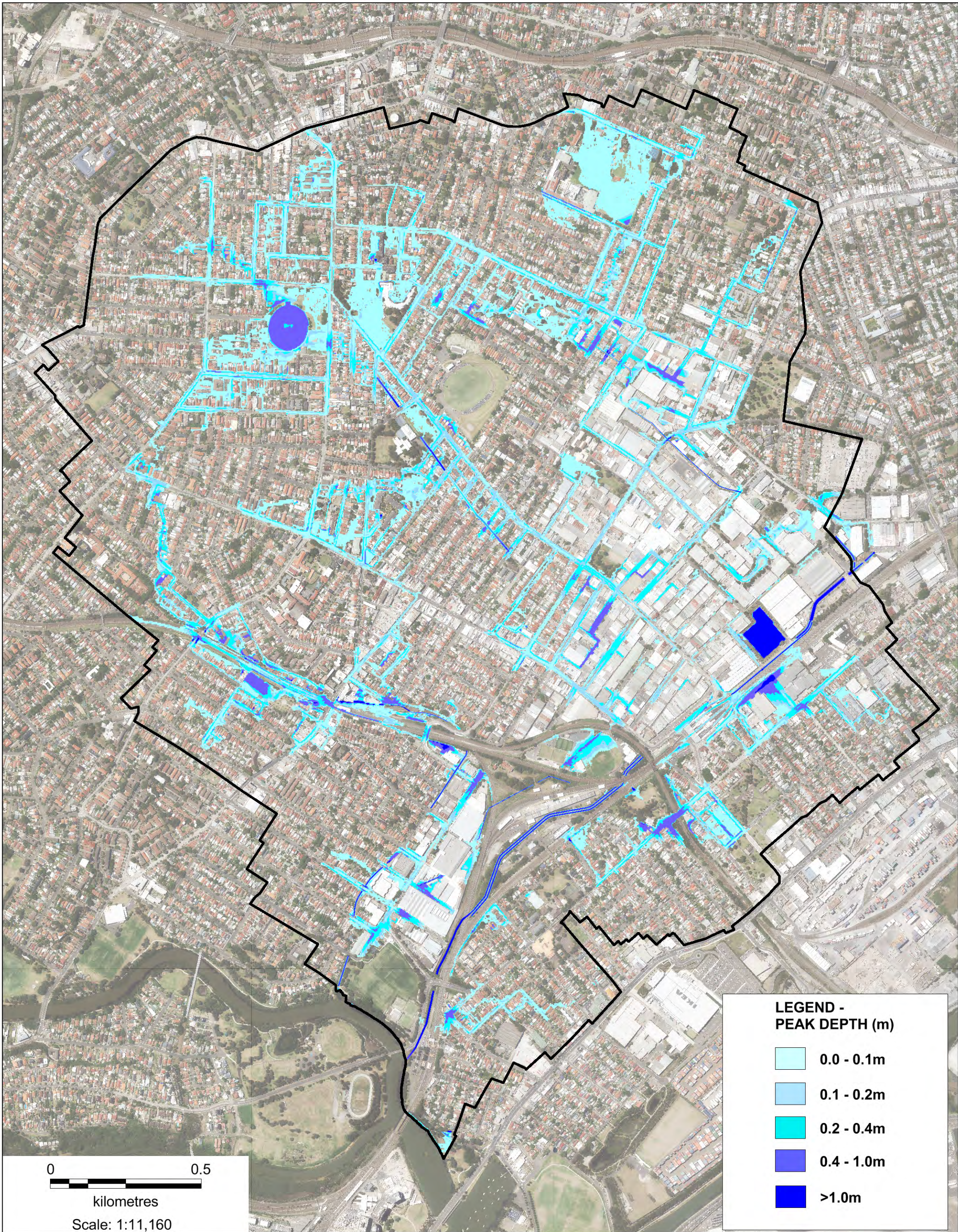
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Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**1% AEP Flood Depth
FM11.3**
MARRICKVILLE VALLEY FRMS&P



Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56

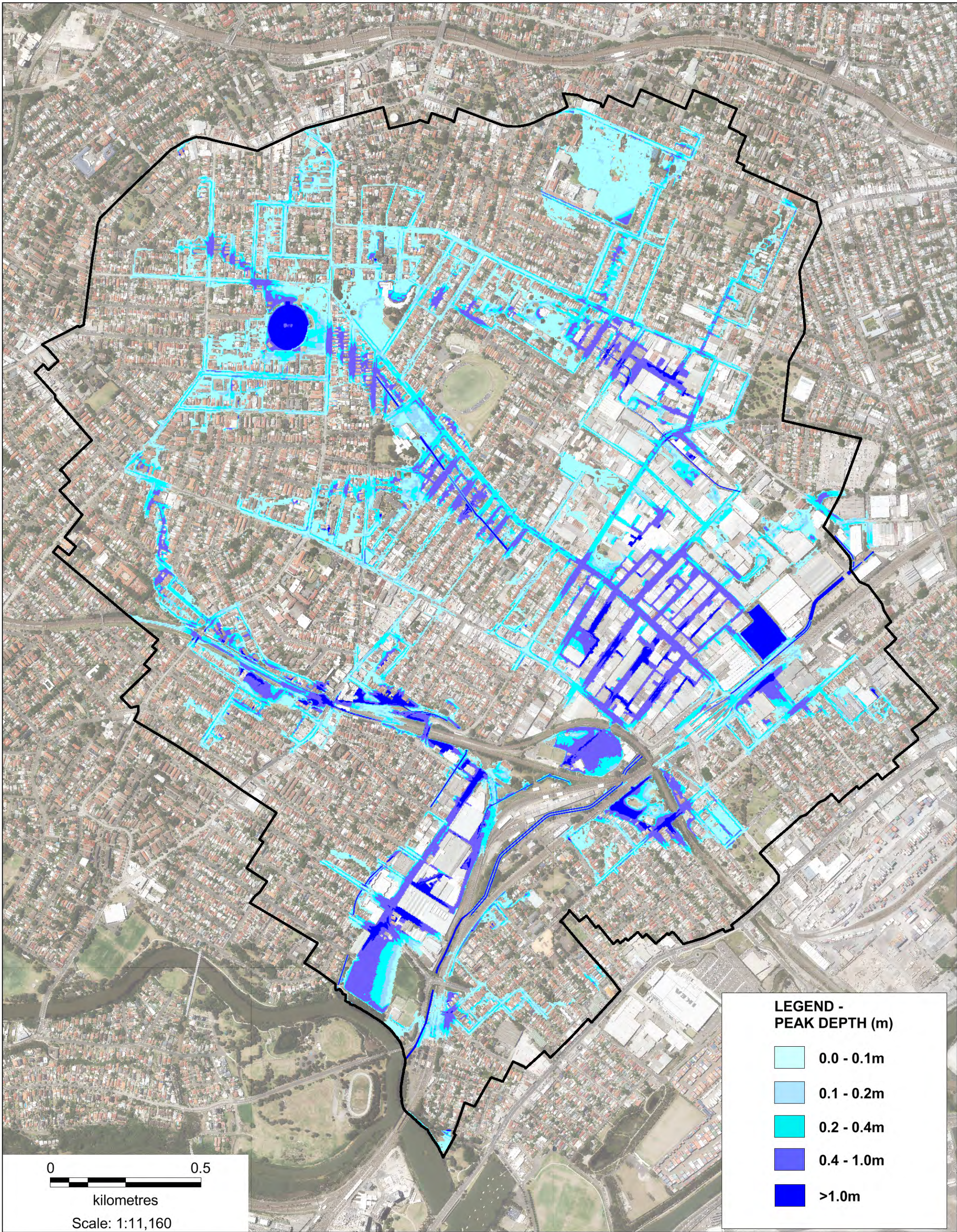


**2 Year ARI Flood Depth
FM11.4**

MARRICKVILLE VALLEY FRMS&P



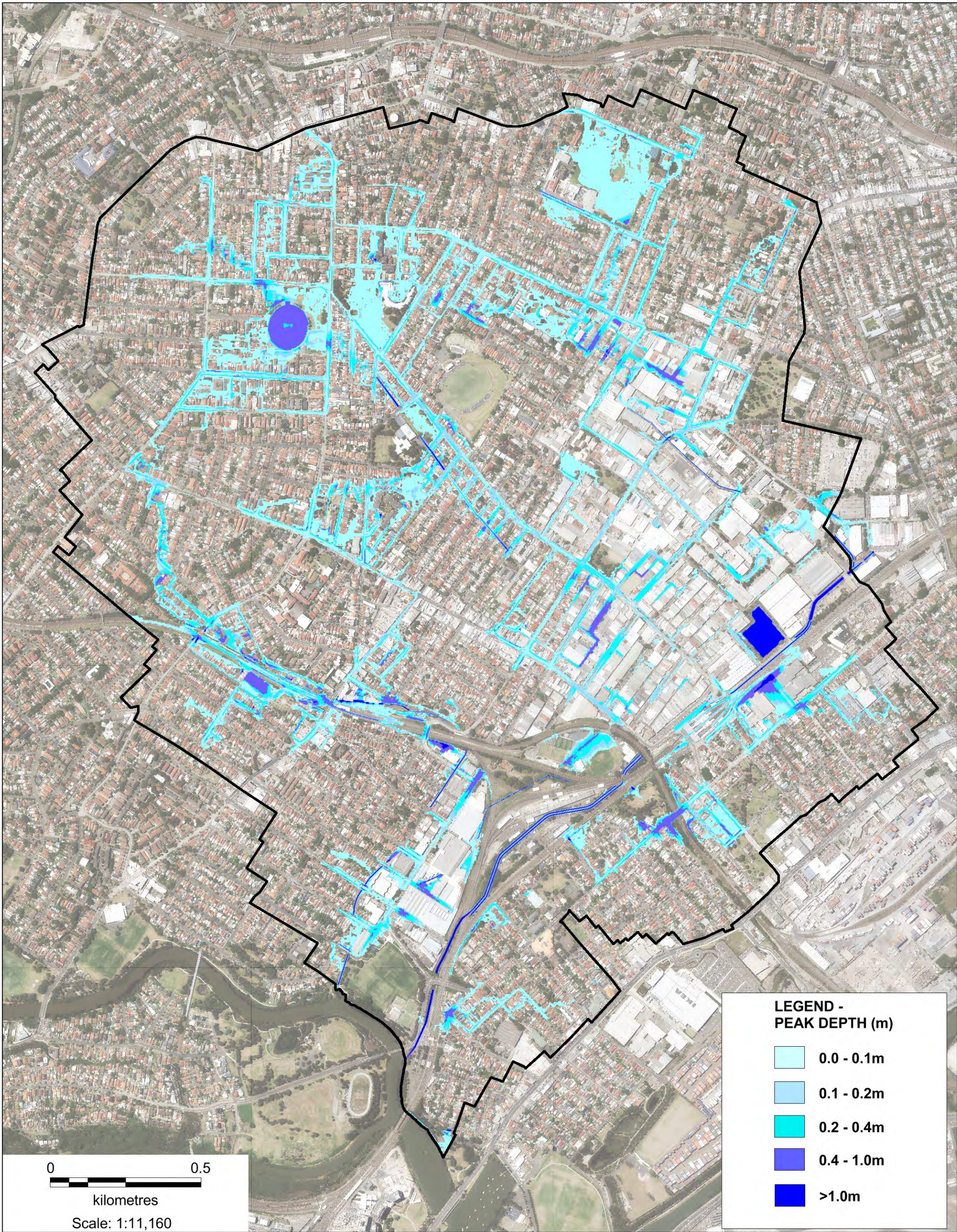
Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**1% AEP Flood Depth
FM11.4**
MARRICKVILLE VALLEY FRMS&P



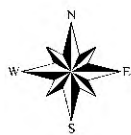
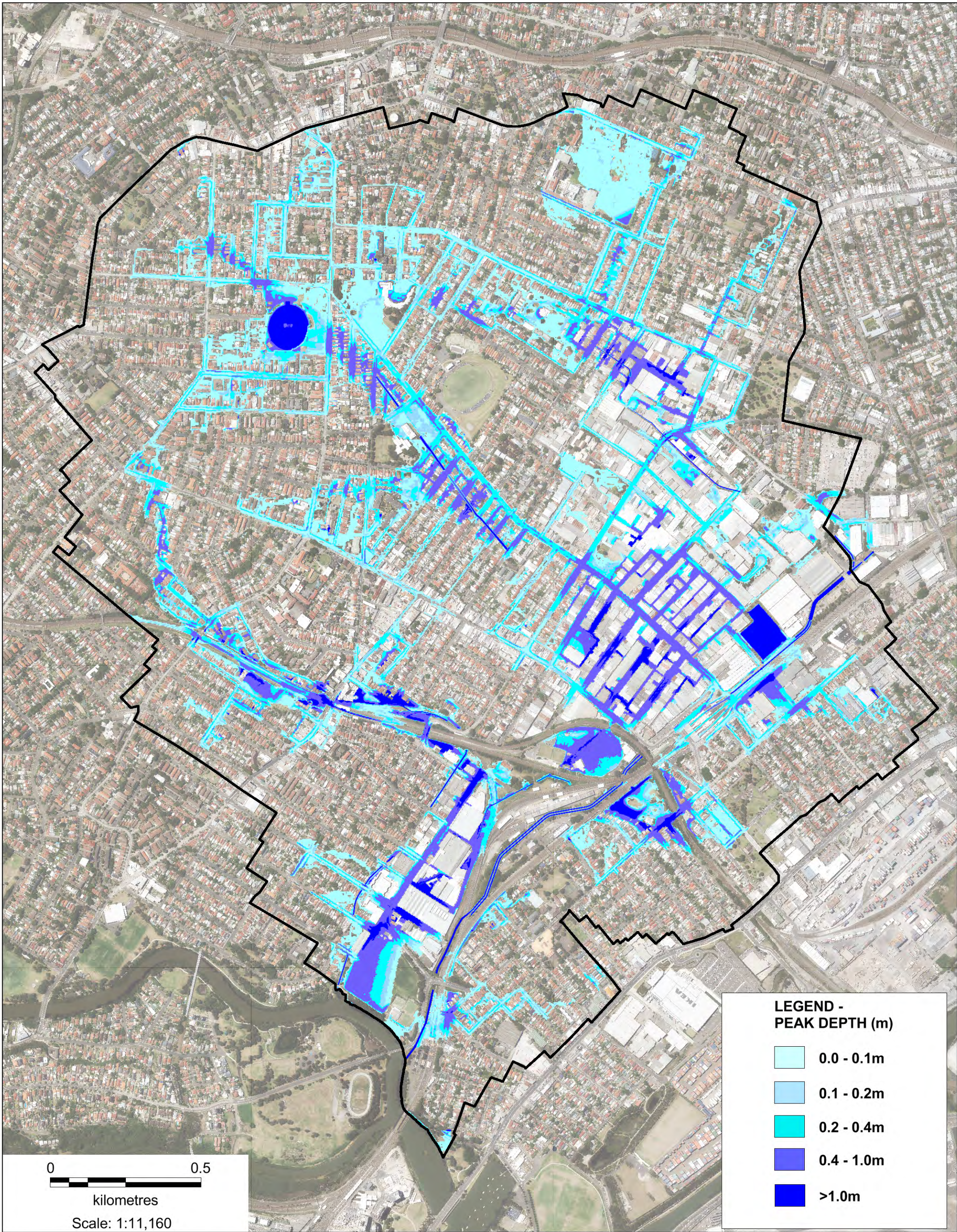
Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**2 Year ARI Flood Depth
FM12.1 & FM12.2**
MARRICKVILLE VALLEY FRMS&P



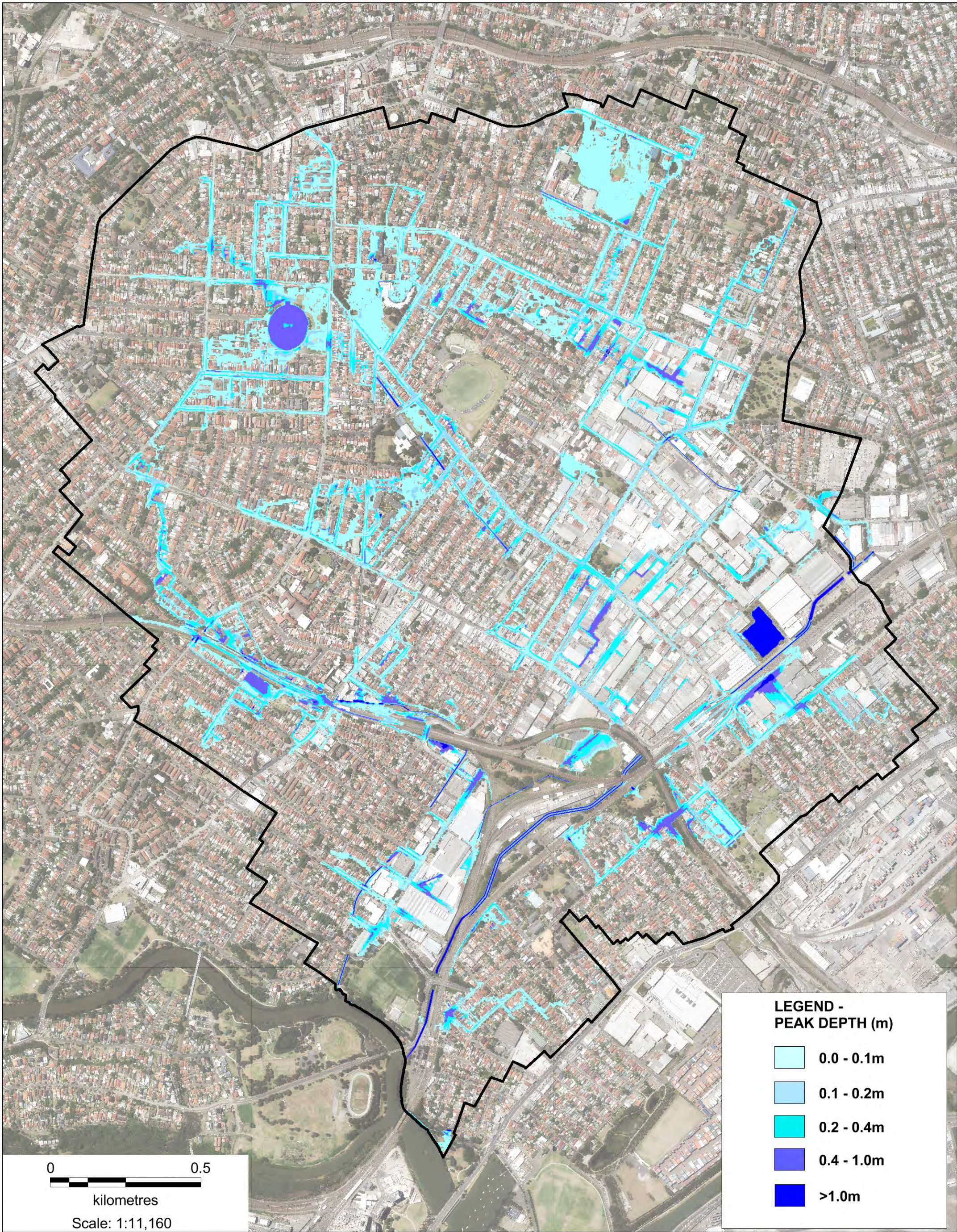
Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**1% AEP Flood Depth
FM12.1 & FM12.2**
MARRICKVILLE VALLEY FRMS&P



Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56

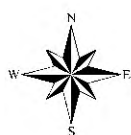
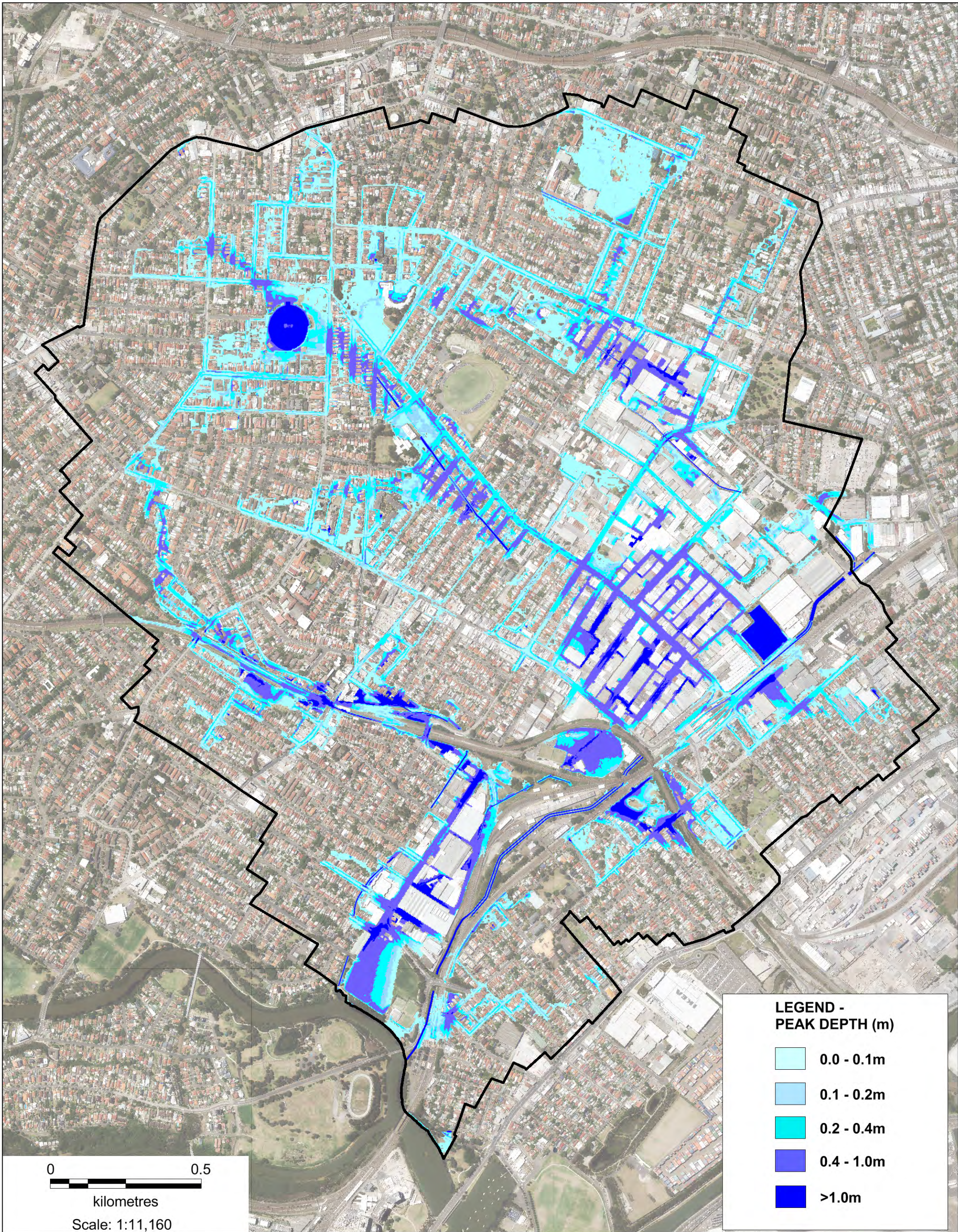


**2 Year ARI Flood Depth
FM12.4**

MARRICKVILLE VALLEY FRMS&P



Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56

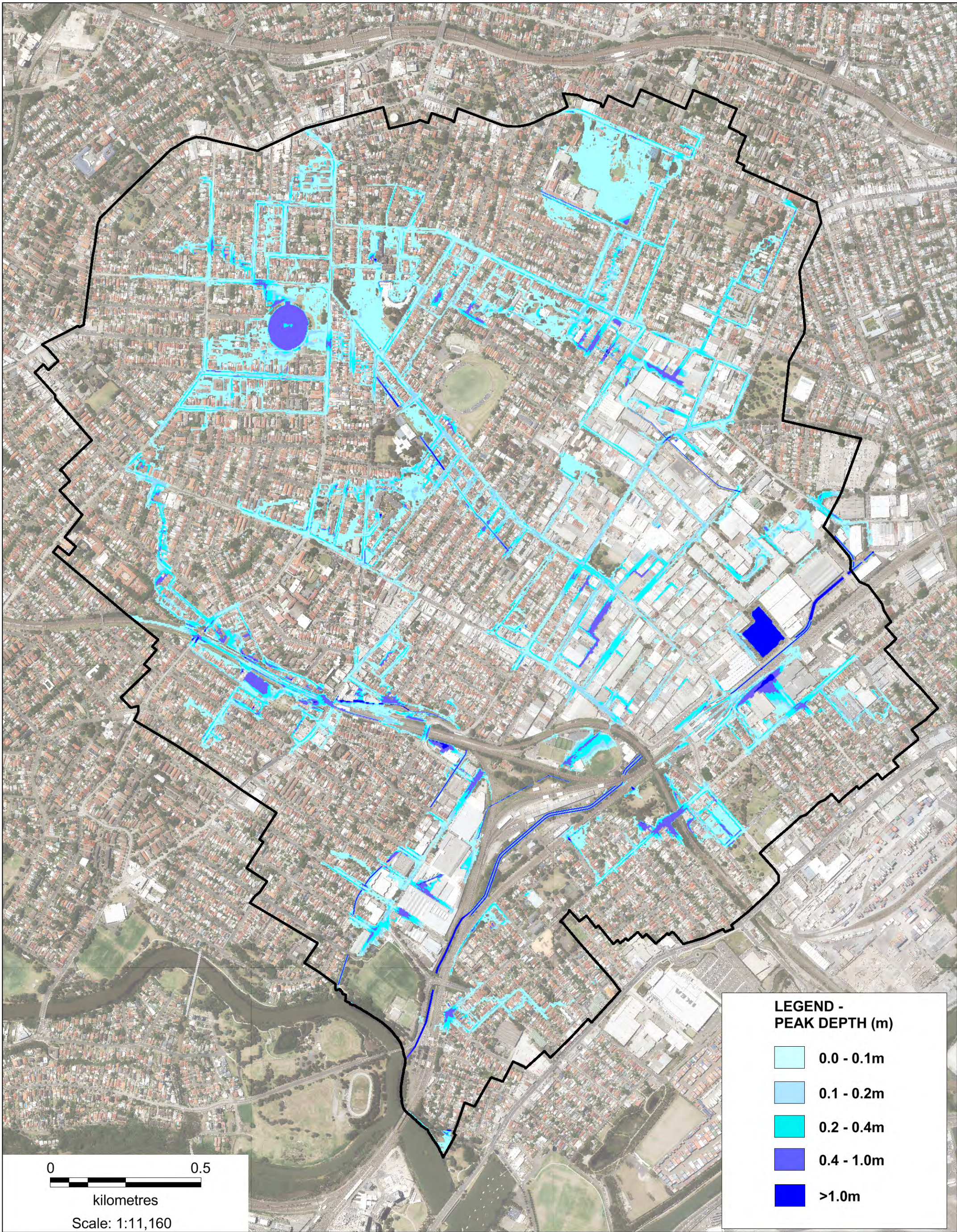


**1% AEP Flood Depth
FM12.4**

MARRICKVILLE VALLEY FRMS&P



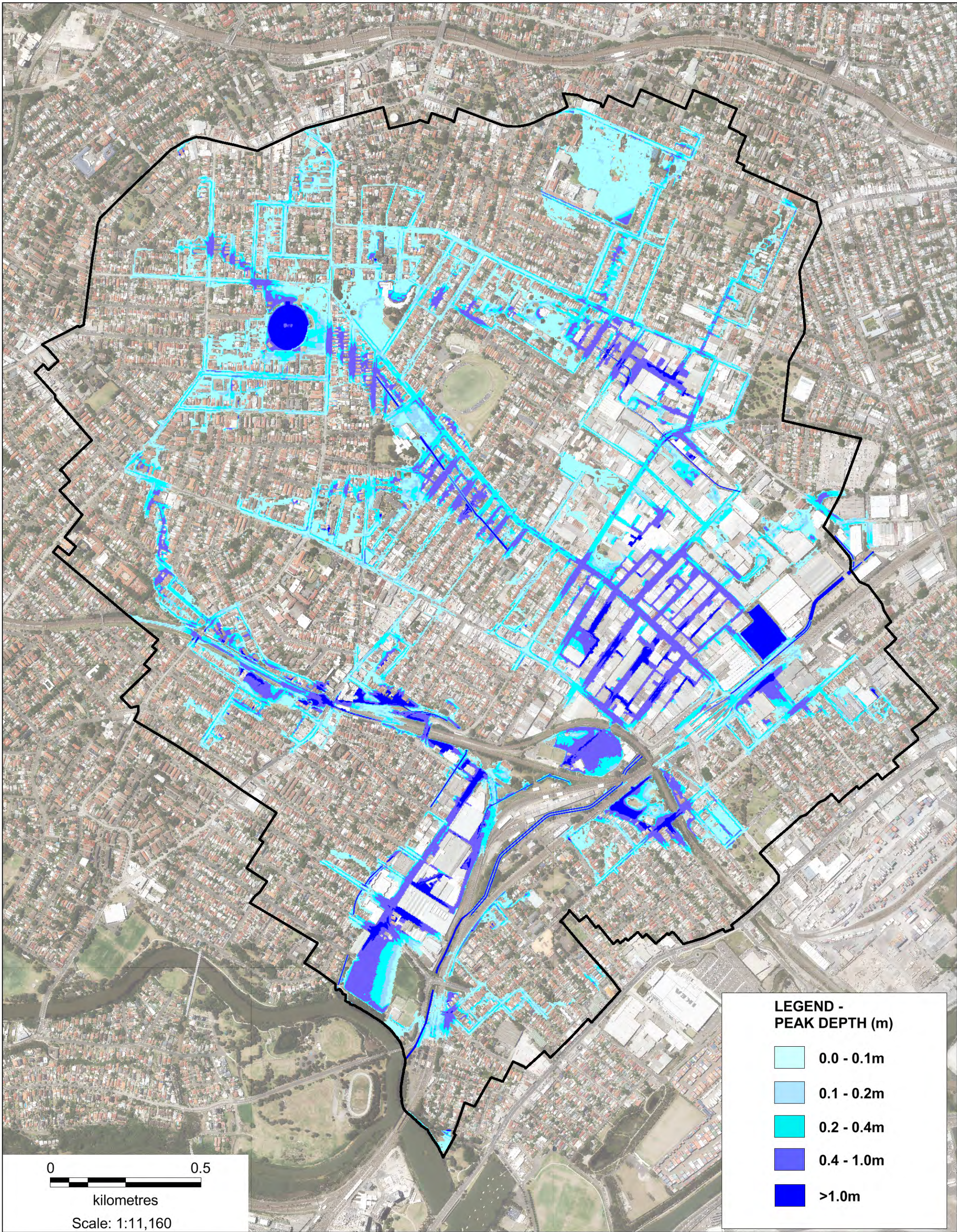
Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**2 Year ARI Flood Depth
FM12.5**
MARRICKVILLE VALLEY FRMS&P



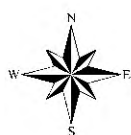
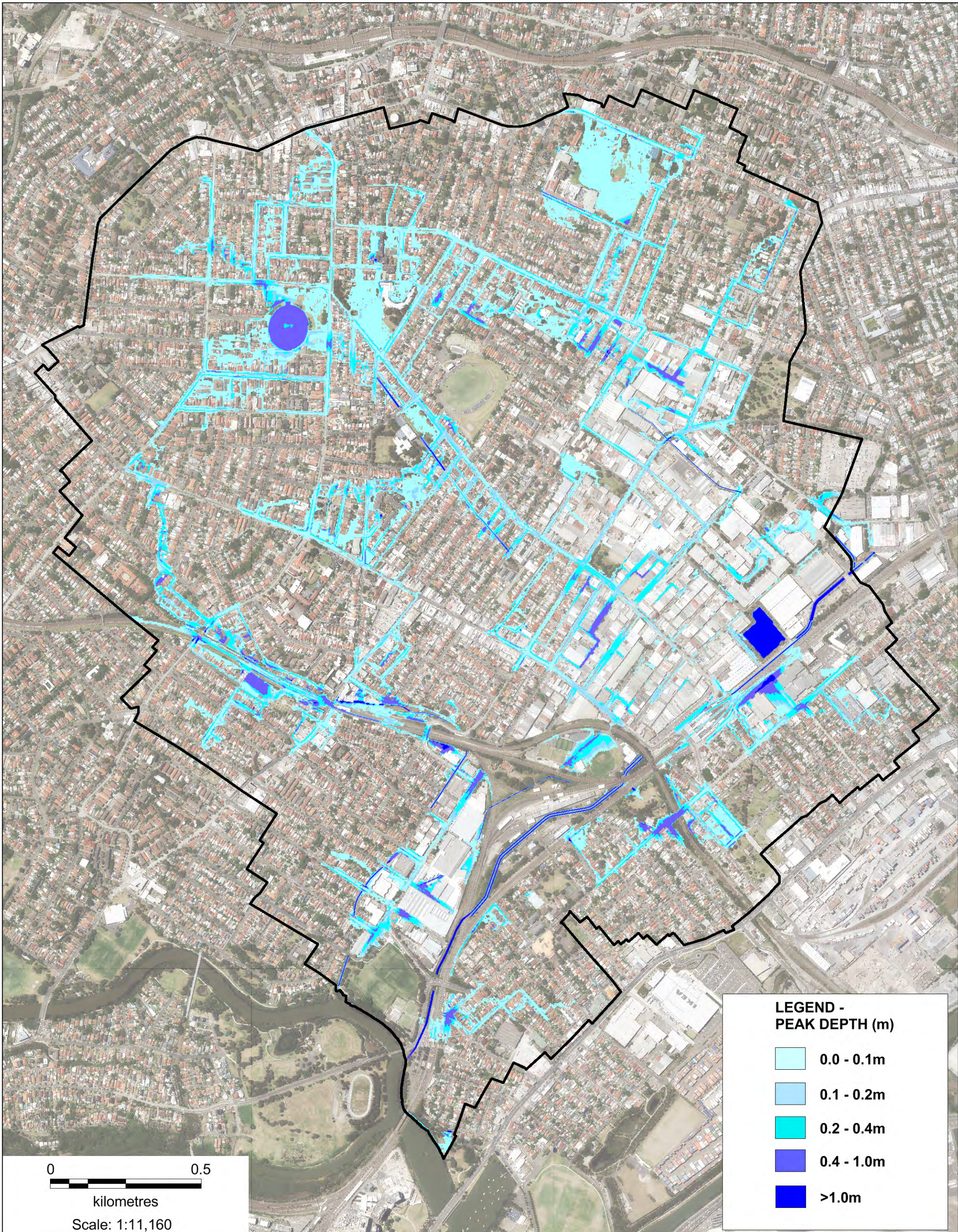
Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**1% AEP Flood Depth
FM12.5**
MARRICKVILLE VALLEY FRMS&P



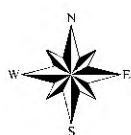
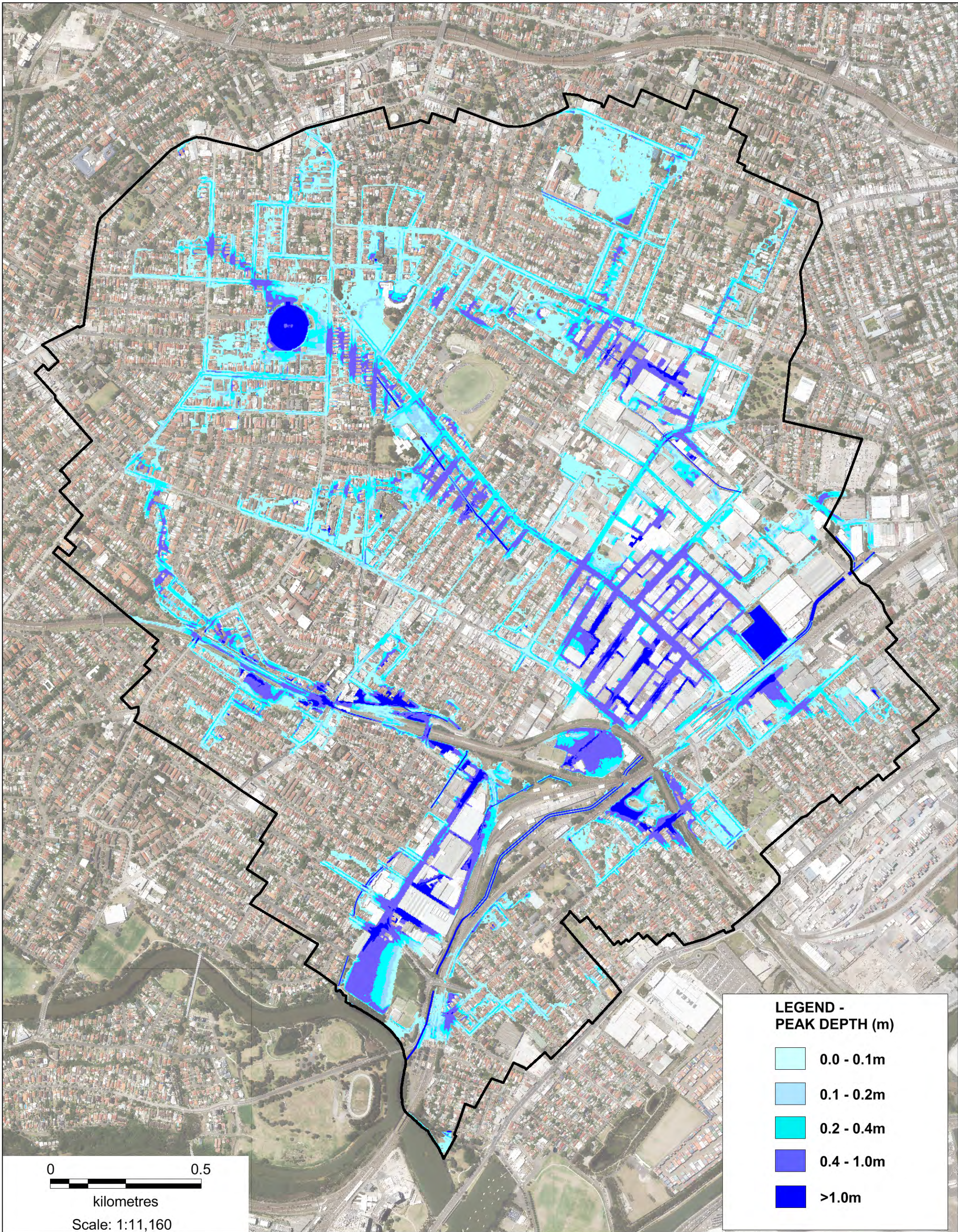
Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**2 Year ARI Flood Depth
FM13.1 & FM13.2 & FM13.5**
MARRICKVILLE VALLEY FRMS&P



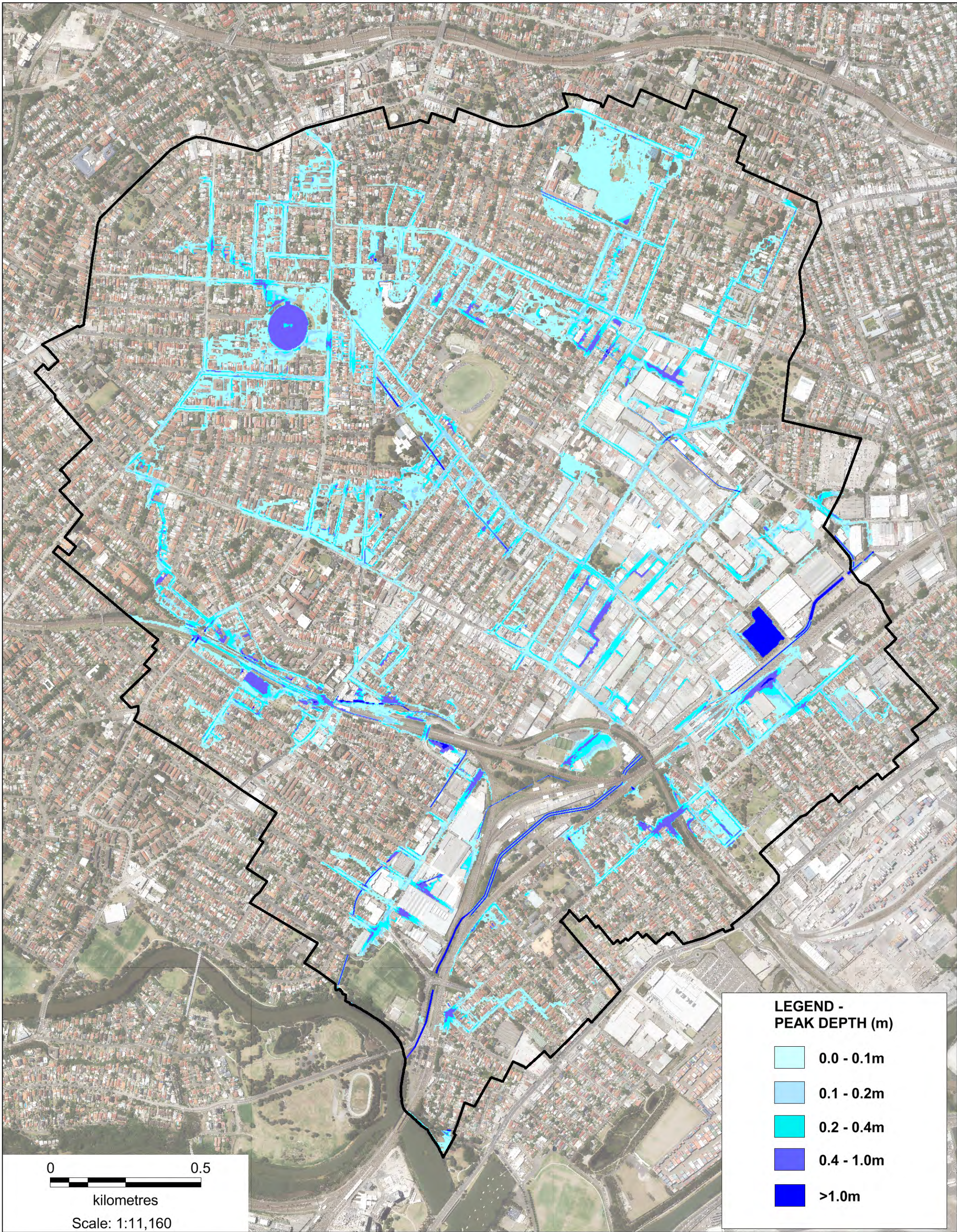
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Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**1% AEP Flood Depth
FM13.1 & FM13.2 & FM13.5**
MARRICKVILLE VALLEY FRMS&P



Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56

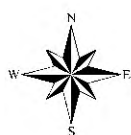
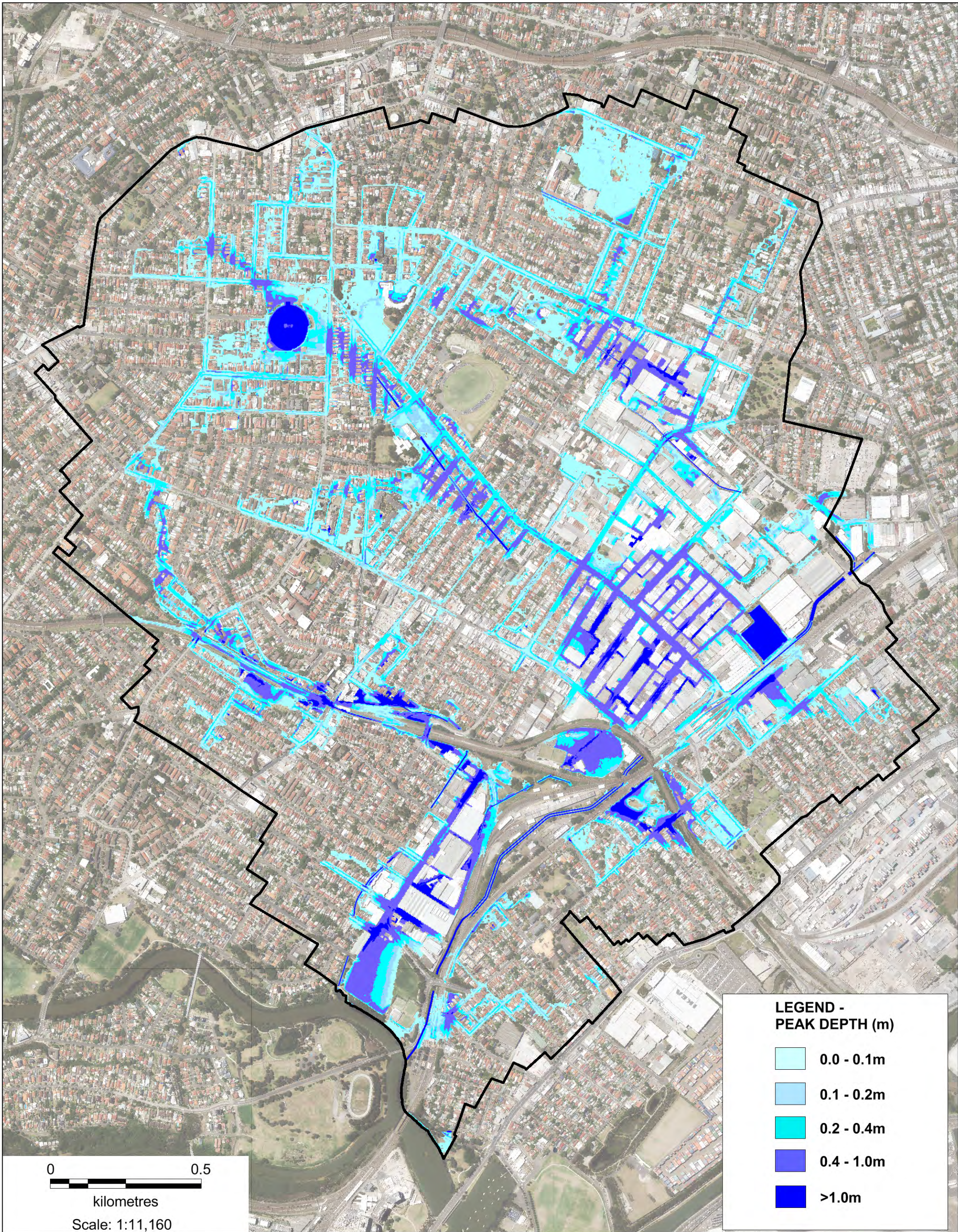


**2 Year ARI Flood Depth
FM14.1**

MARRICKVILLE VALLEY FRMS&P



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Project:59915195
Coordinate System: MGA Zone 56

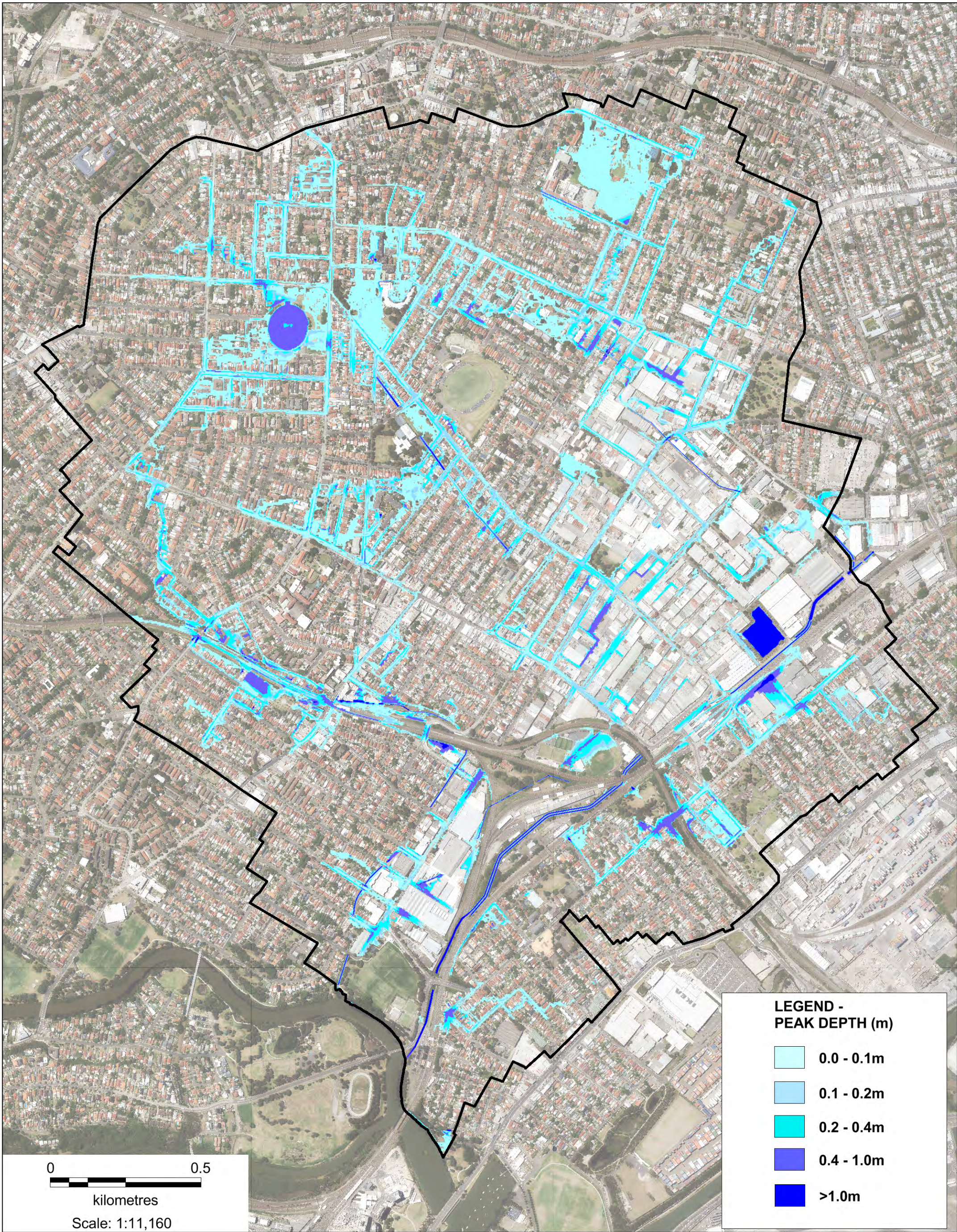


**1% AEP Flood Depth
FM14.1**

MARRICKVILLE VALLEY FRMS&P



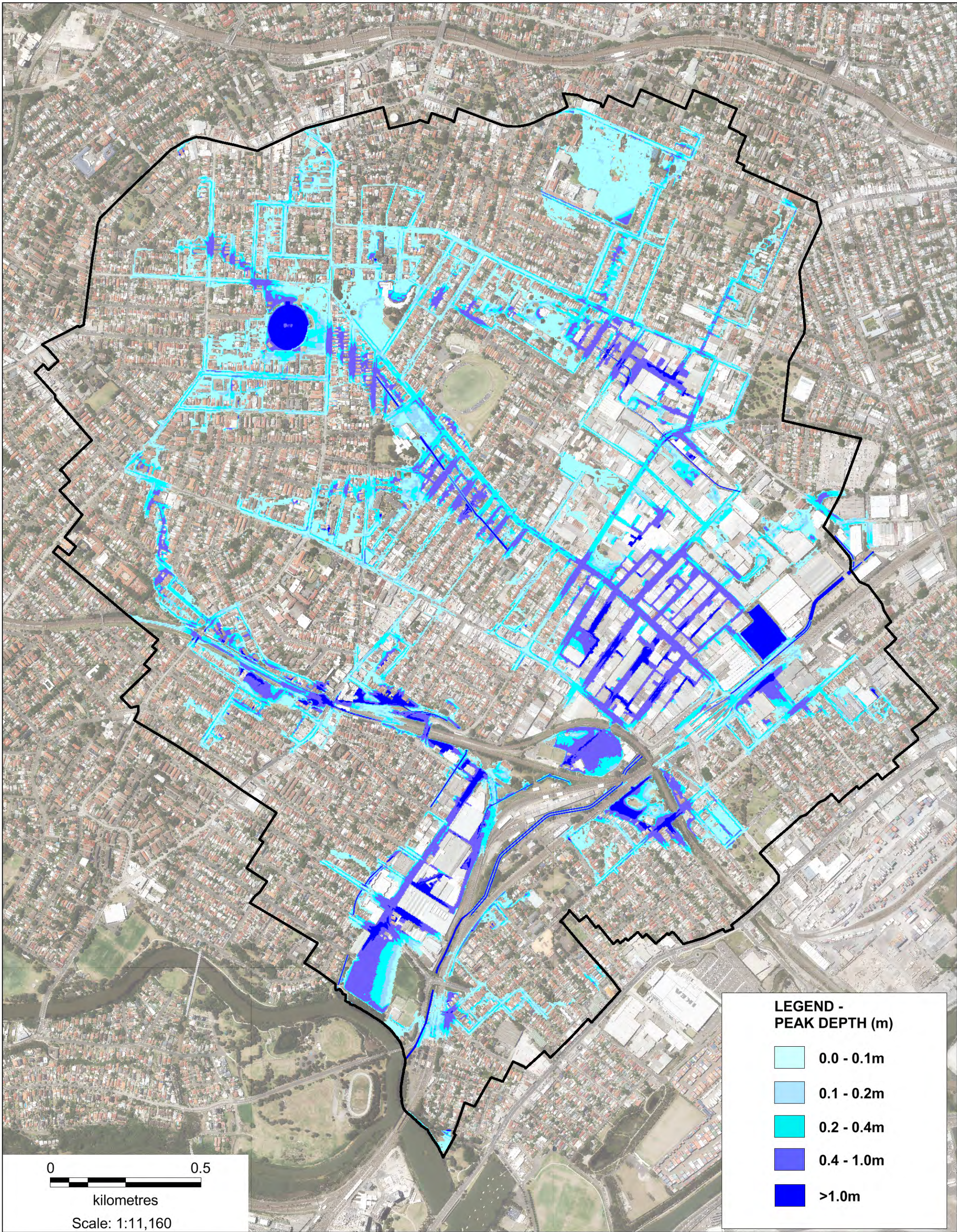
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**2 Year ARI Flood Depth
FM15.1 & FM15.2**
MARRICKVILLE VALLEY FRMS&P



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Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56

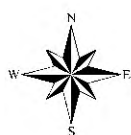
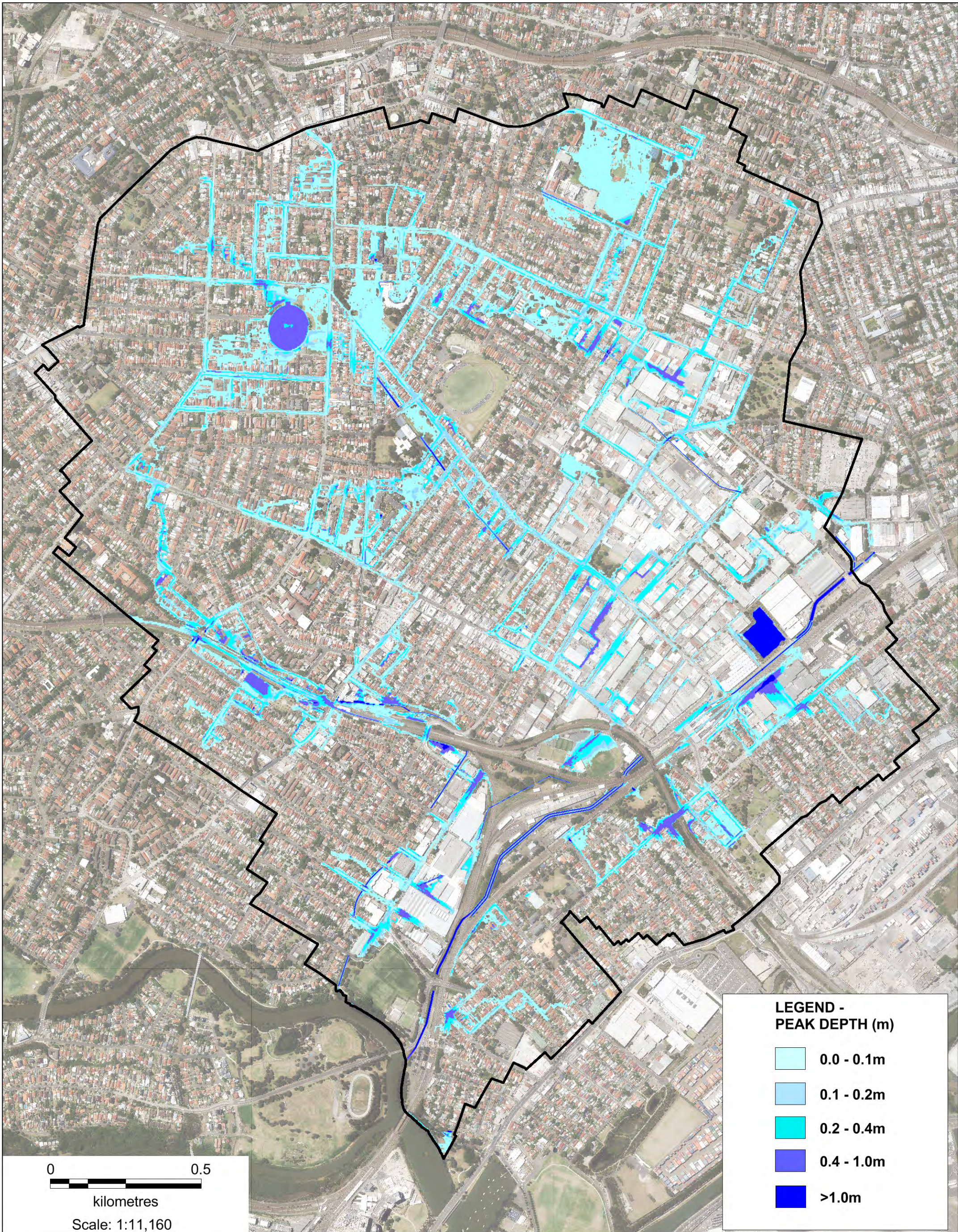


**1% AEP Flood Depth
FM15.1 & FM15.2**

MARRICKVILLE VALLEY FRMS&P



Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56

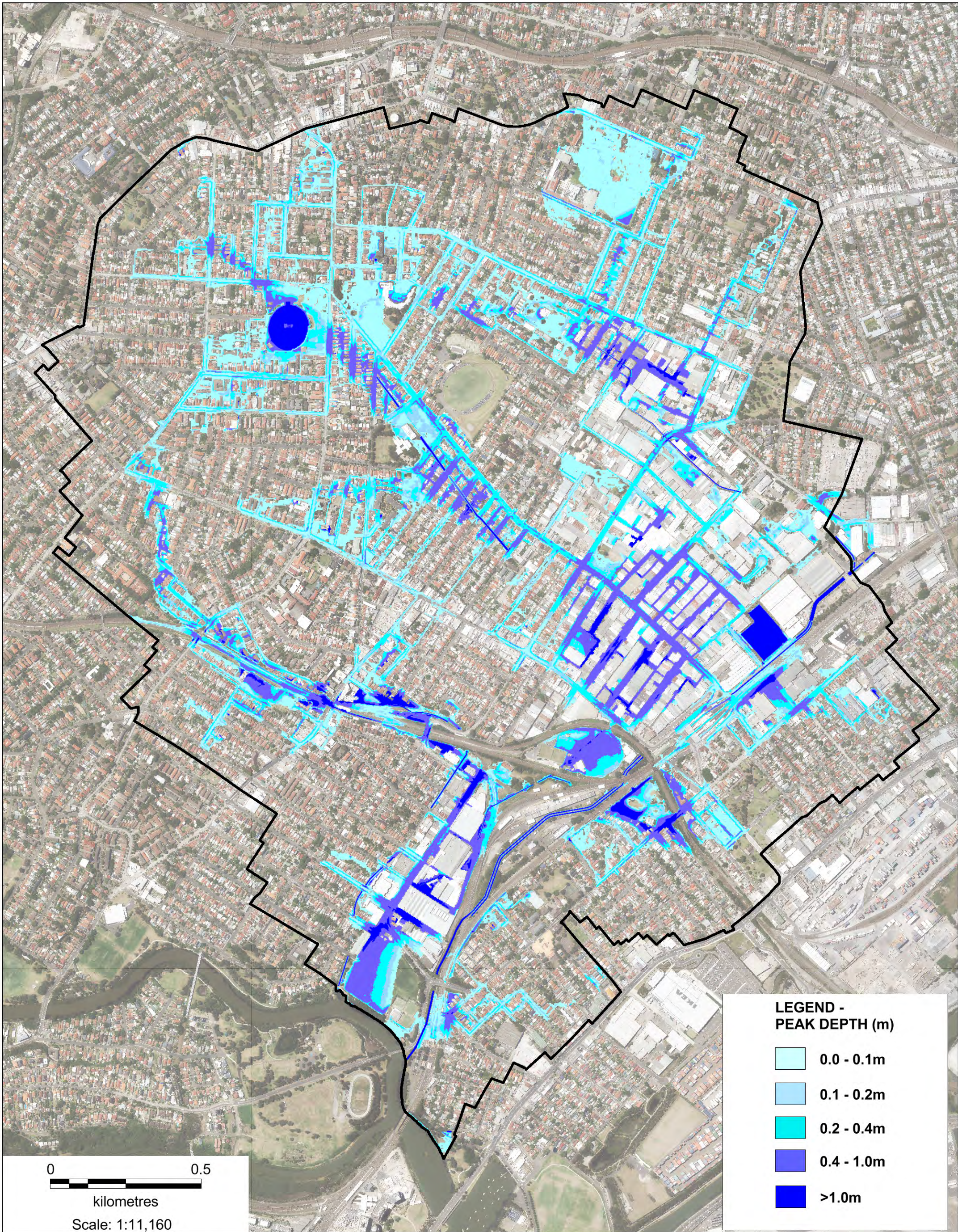


**2 Year ARI Flood Depth
FM15.3**





MARRICKVILLE VALLEY FRMS&P

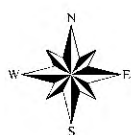


Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**LEGEND -
PEAK DEPTH (m)**

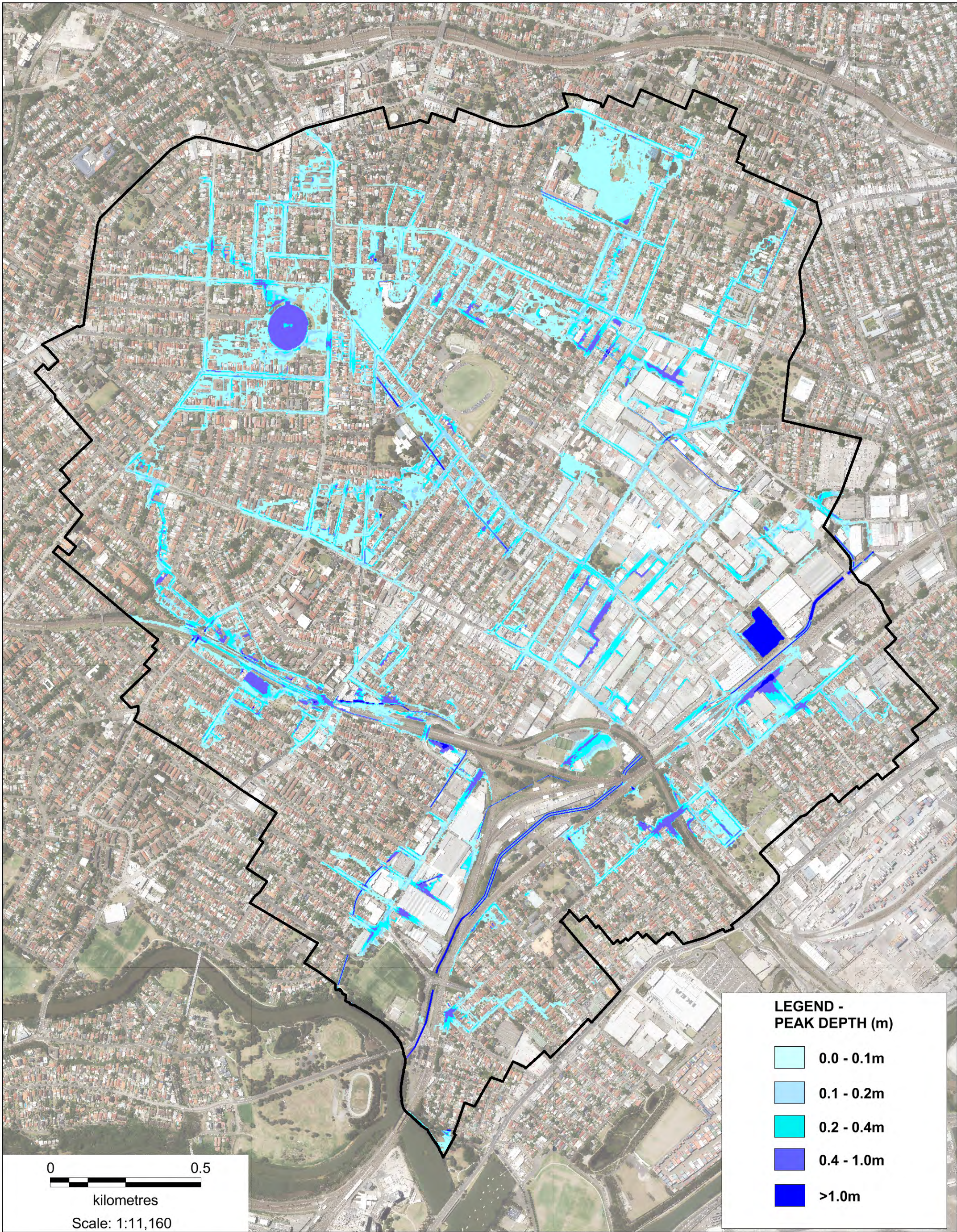
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	0.1 - 0.2m
	0.2 - 0.4m
	0.4 - 1.0m
	>1.0m



**1% AEP Flood Depth
FM15.3**
MARRICKVILLE VALLEY FRMS&P



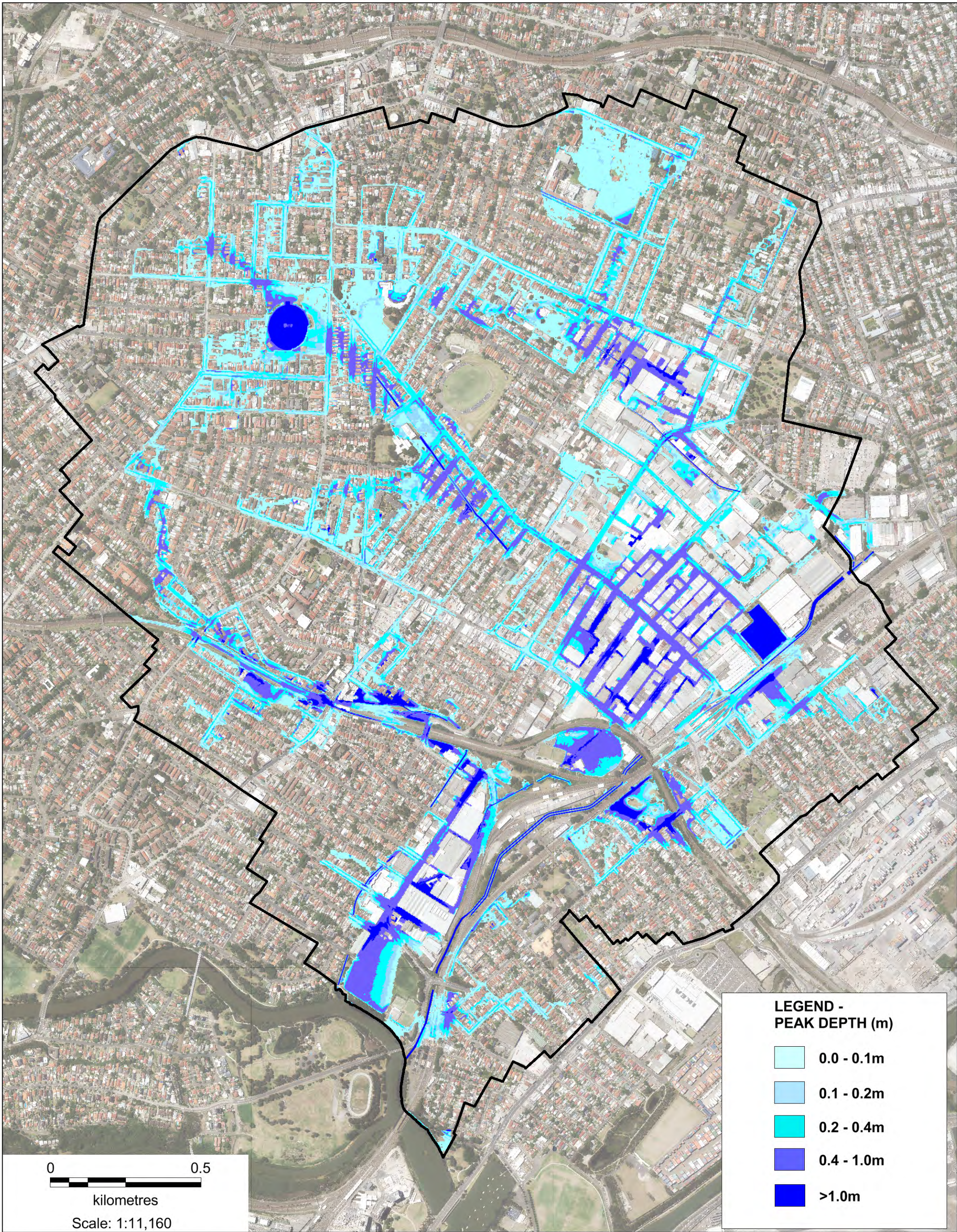
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Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**2 Year ARI Flood Depth
FM15.5**
MARRICKVILLE VALLEY FRMS&P



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Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56

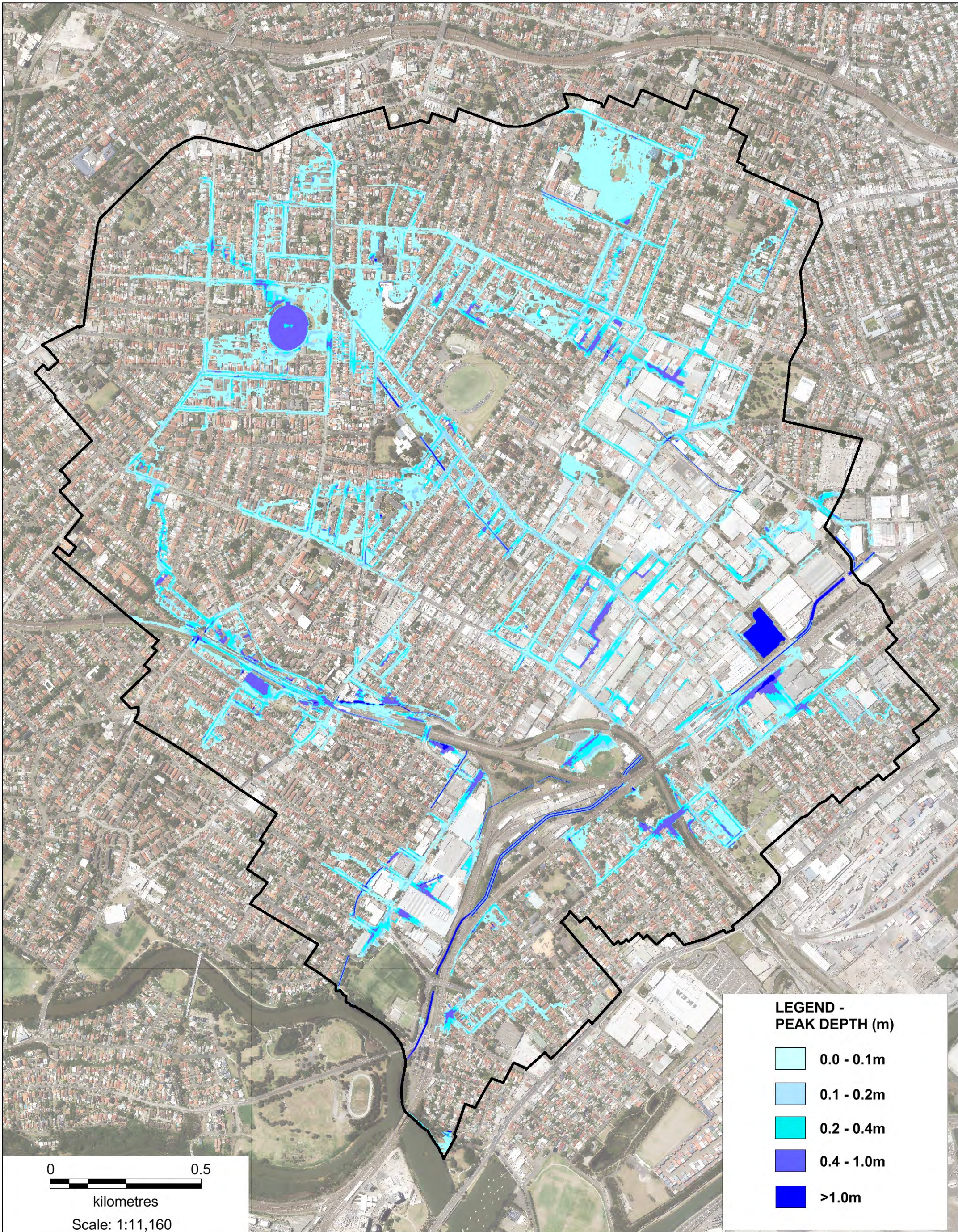


**1% AEP Flood Depth
FM15.5**

MARRICKVILLE VALLEY FRMS&P

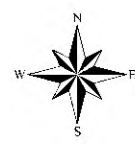


Map Produced by Cardno NSW/ACT Pty Ltd
Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56



**LEGEND -
PEAK DEPTH (m)**

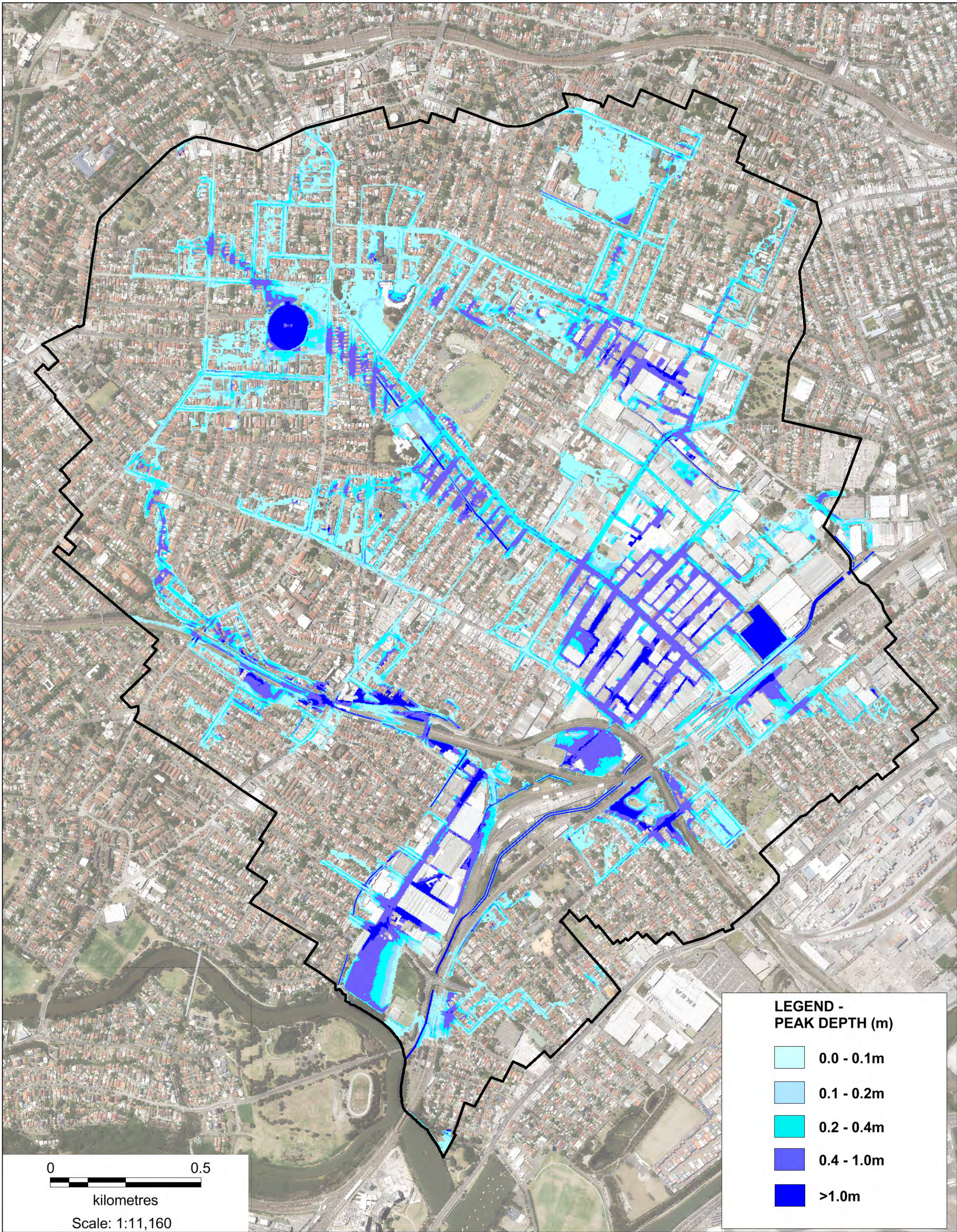
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- 0.1 - 0.2m
- 0.2 - 0.4m
- 0.4 - 1.0m
- >1.0m



**2 Year ARI Flood Depth
FM15.7**
MARRICKVILLE VALLEY FRMS&P



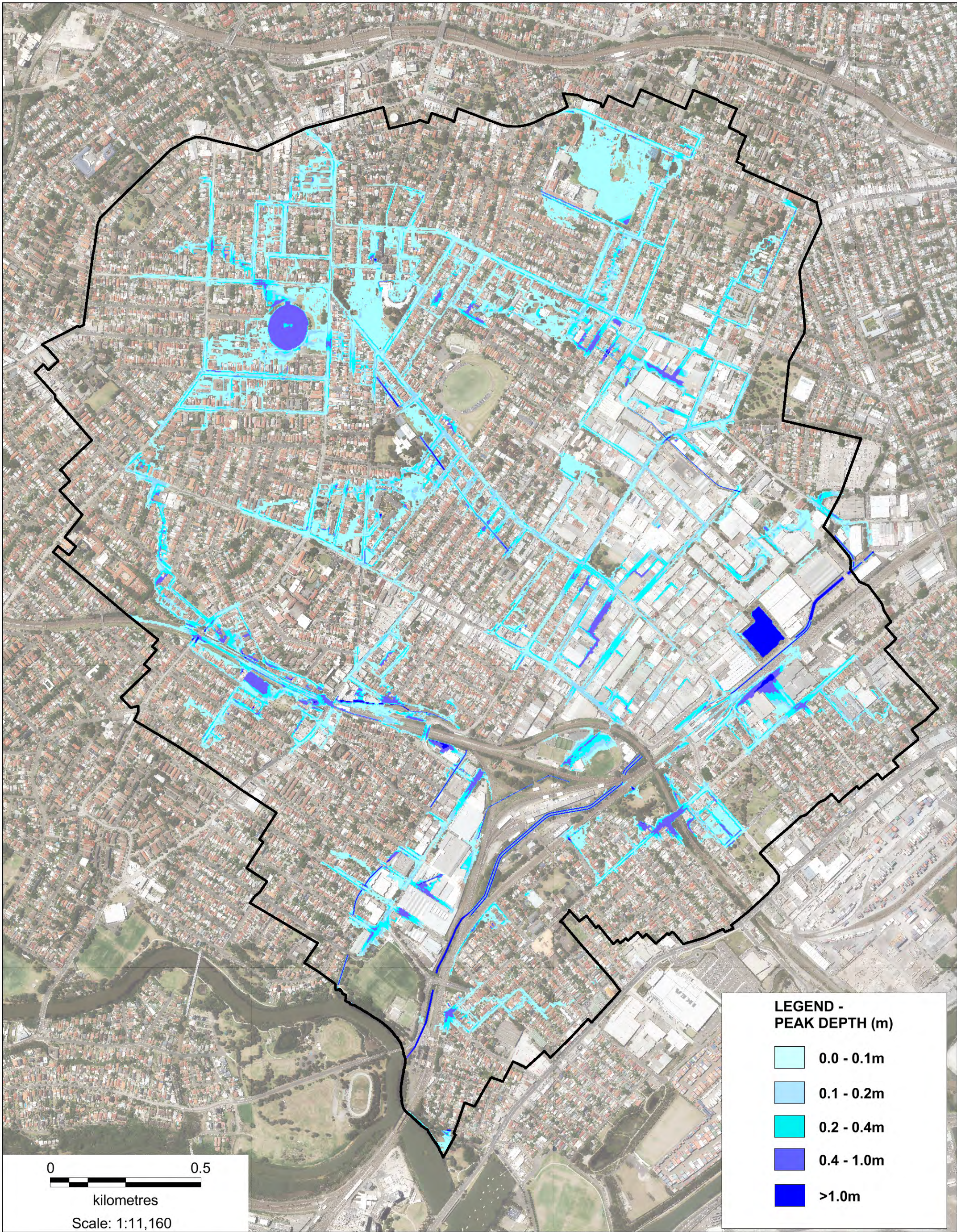
Map Produced by Cardno NSW/ACT Pty Ltd
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**1% AEP Flood Depth
FM15.7**
MARRICKVILLE VALLEY FRMS&P



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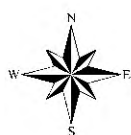
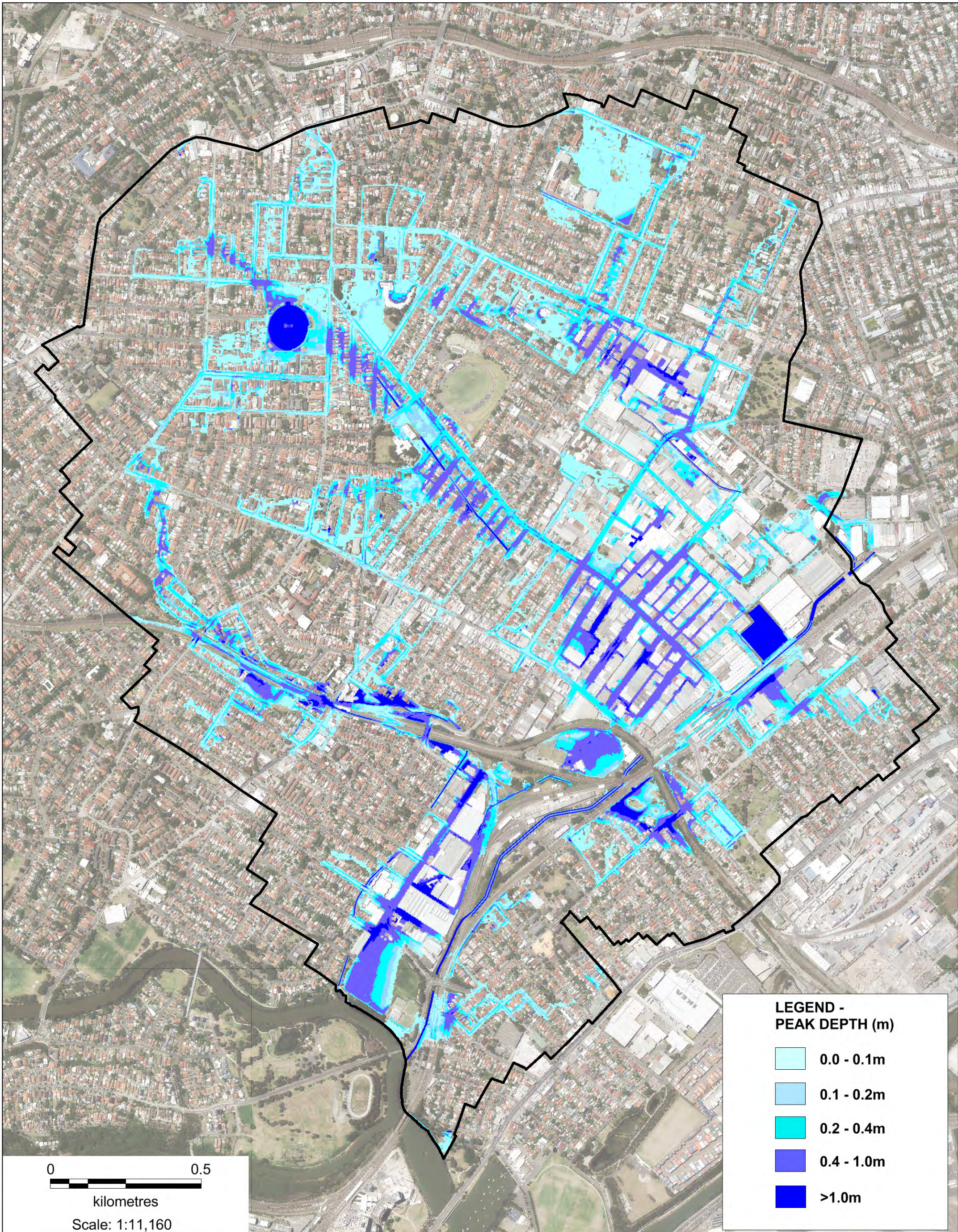


**2 Year ARI Flood Depth
FM15.9**

MARRICKVILLE VALLEY FRMS&P



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Date: May 2017
Project:59915195
Coordinate System: MGA Zone 56

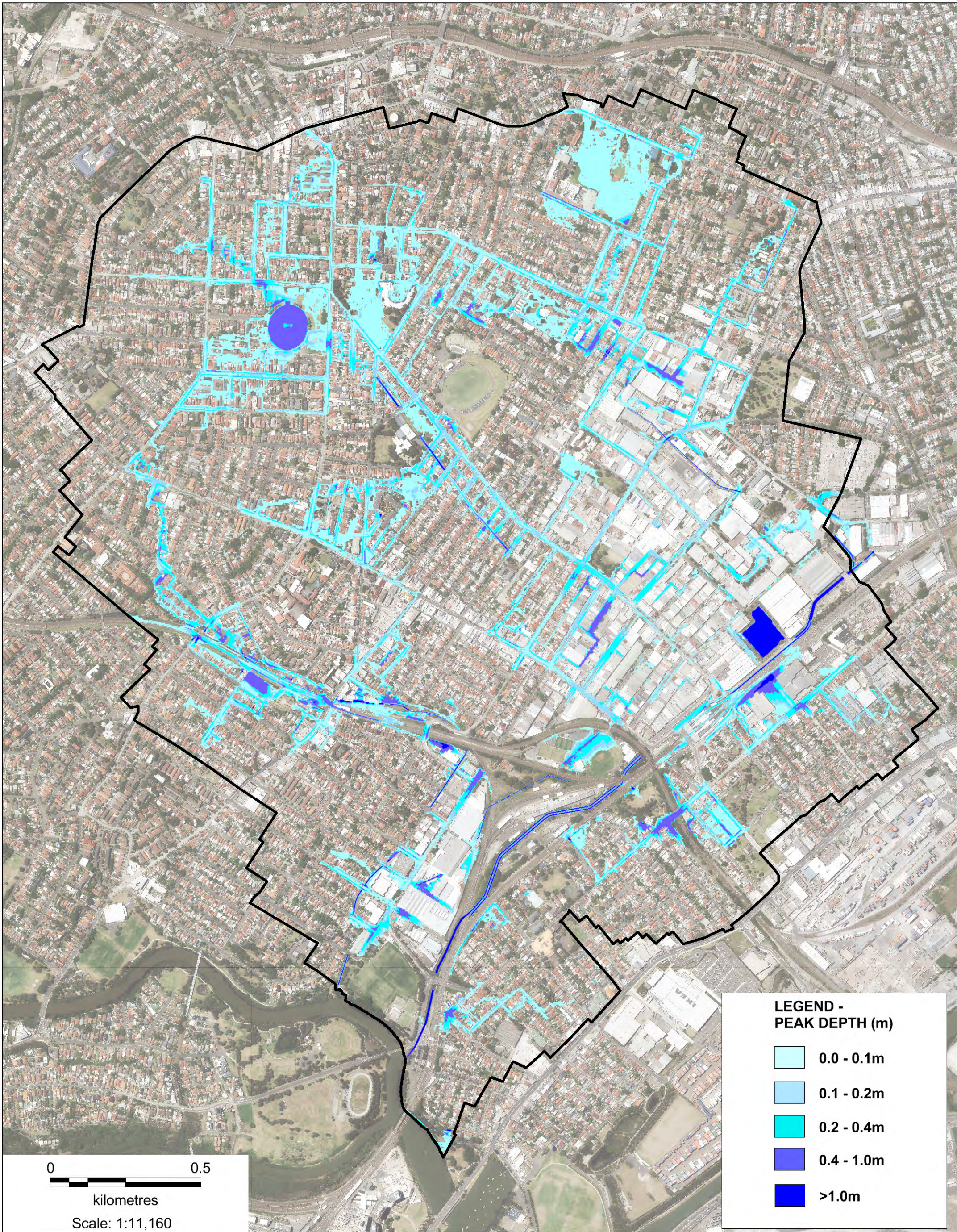


**1% AEP Flood Depth
FM15.9**

MARRICKVILLE VALLEY FRMS&P



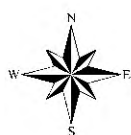
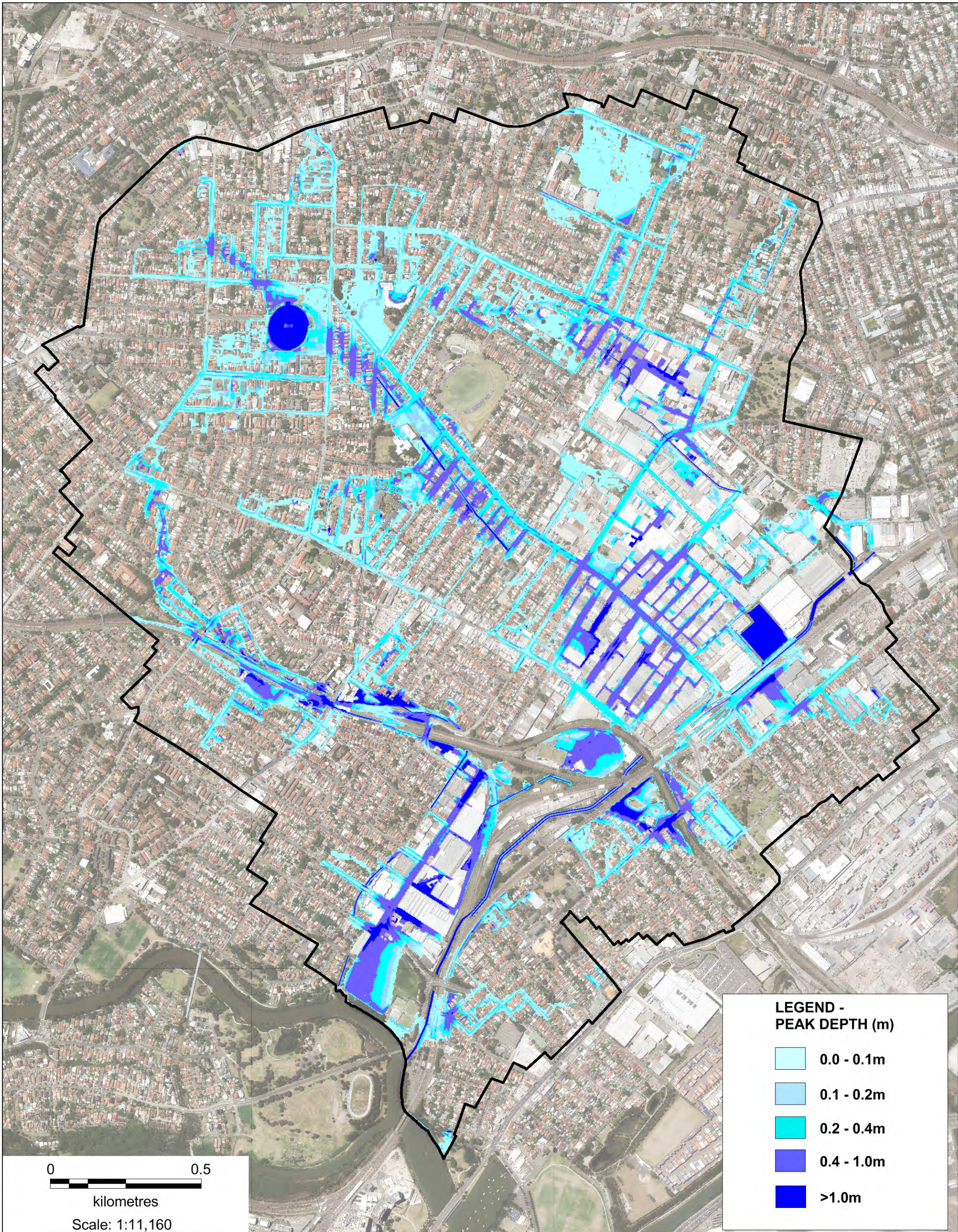
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**2 Year ARI Flood Depth
FM15.10**
MARRICKVILLE VALLEY FRMS&P



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**1% AEP Flood Depth
FM15.10**

MARRICKVILLE VALLEY FRMS&P



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Marrickville Valley Floodplain Risk
Management Study and Plan

APPENDIX

L

OPTIONS COST BREAKDOWN





Cost Estimate


Option: FM1.1 - Install new pipes to re-direct flows from Morton Ave to Frazer St, and install a new box culvert from the low point along Frazer St to a new surcharge pit in Marrickville Oval.
Additional sag inlet pits to get flows into the pipes.


v1


ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				212,300
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas	333	sq. m	10	3,330
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	49.95	cu. m	25	1,249
2.3	Dispose of excess topsoil (nominal 10% allowance)	4.995	cu. m	200	999
	SUBTOTAL				5,578
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.375m dia. Pipe	10	lin.m	780	7,800
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe	0	lin.m	980	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe	360	lin.m	1040	374,400
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe	0	lin.m	1230	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe	0	lin.m	1430	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe	0	lin.m	2850	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.5m dia. Pipe	0	lin.m	1950	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.65m dia. Pipe	0	lin.m	2330	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 1.2m culvert	141	lin.m	3680	518,880
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.7m x 2.7m culvert		q	5520	0
3.11	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	12	each	6000	72,000
3.12	Supply, excavate, bed, lay, backfill surcharge pit	2	each	30000	60,000
3.13	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	103,308	103,308
3.14	Allowance for nightworks (assume for works on all regional/state roads)	1	item	139,440	139,440
	SUBTOTAL				1,275,828
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 TRAFFIC CONTROL					
5.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	127583	127,583
	SUBTOTAL				127,583
6.0 PROPERTY BY-BACK					
6.1	Purchase of properties in order to create drainage easements		each	1300000	0
	SUBTOTAL				0
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	333	sq. m	20	6,660
	SUBTOTAL				6,660
CONSTRUCTION SUB-TOTAL					1,627,949
8.0 CONTINGENCIES					
8.1	30% construction cost				488,385
CONSTRUCTION TOTAL, excluding GST					2,116,333
GST					211,633
CONSTRUCTION TOTAL, including GST					2,327,966
CONSTRUCTION TOTAL, rounded					2,328,000
DISCLAIMER:					
1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
1. Estimate does not include Consultant's fees, including design or project management					
2. Estimate / rates in 2016 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P		<div><div>Cardno</div><div>Shaping the Future</div></div>			
Cost Estimate					
Option: FM1.2 - Divert Flows from Wardell Rd down Bishop St to basin via pipes & a box culvert from the low point along Frazer St to a new surcharge pit in Marrickville Oval. <div>v1</div>					
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				201,500
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	333	sq. m	10	3,330
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	49.95	cu. m	25	1,249
2.3	Dispose of excess topsoil (nominal 10% allowance)	4.995	cu. m	200	999
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				5,578
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.375m dia. Pipe	10	lin.m	780	7,800
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	370	lin.m	850	314,500
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe	60	lin.m	1040	62,400
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 1.2m culvert	141	lin.m	3680	518,880
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	12	each	6000	72,000
3.17	Supply, excavate, bed, lay, backfill surcharge pit	2	each	30000	60,000
	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	103,558	103,558
3.14	Allowance for nightworks (assume for works on all regional/state roads)	1	item	70,800	70,800
	SUBTOTAL				1,209,938
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	120994	120,994
	SUBTOTAL				120,994
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	333	sq. m	20	6,660
	SUBTOTAL				6,660
CONSTRUCTION SUB-TOTAL					1,544,670
8.0 CONTINGENCIES					
8.1	30% construction cost				463,401
CONSTRUCTION TOTAL, excluding GST					2,008,070
GST					200,807
CONSTRUCTION TOTAL, including GST					2,208,877
CONSTRUCTION TOTAL, rounded					2,208,900
DISCLAIMER:					
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Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
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2. Estimate / rates in 2016 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM2.1 - Install orifice plate on basin outlet to maximise basin flood attenuation for up to the 20% AEP event.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				6,600
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	78	sq. m	10	782
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	11.7225	cu. m	25	293
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.17225	cu. m	200	234
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				1,309
3.0 DRAINAGE					
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe	3	lin.m	800	2,400
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 3.0m x 1.5m culvert		lin.m	5865	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	1	each	6000	6,000
3.17	Install Install orifice plate on basin outlet	1	each	30000	30,000
3.18	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	0	item	0	0
	SUBTOTAL				38,400
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	3840	3,840
	SUBTOTAL				3,840
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	10	sq. m	20	200
	SUBTOTAL				200
CONSTRUCTION SUB-TOTAL					50,349
8.0 CONTINGENCIES					
8.1	30% construction cost				15,105
CONSTRUCTION TOTAL, excluding GST					65,454
GST					6,545
CONSTRUCTION TOTAL, including GST					71,999
CONSTRUCTION TOTAL, rounded					72,000
DISCLAIMER:					
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NOTES:					
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59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM2.3 - Divert George Street catchment from Livingstone Road sag to Centennial St.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				73,600
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	129	sq. m	10	1,290
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	19.35	cu. m	25	484
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.935	cu. m	200	387
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				2,161
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	430	lin.m	850	365,500
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.5m dia. Pipe		lin.m	1950	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	6	each	6000	36,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	40,150	40,150
	SUBTOTAL				441,650
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	44165	44,165
	SUBTOTAL				44,165
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	129	sq. m	20	2,580
	SUBTOTAL				2,580
CONSTRUCTION SUB-TOTAL					564,156
8.0 CONTINGENCIES					
8.1	30% construction cost				169,247
CONSTRUCTION TOTAL, excluding GST					733,402
GST					73,340
CONSTRUCTION TOTAL, including GST					806,743
CONSTRUCTION TOTAL, rounded					806,800
DISCLAIMER:					
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NOTES:					
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2. Estimate / rates in 2016 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
 Cardno Shaping the Future					
Cost Estimate Option: FM3.1 - Divert flows from Jarvie Park to Malakoff Tunnel and upgrade drainage in Petersham Rd and Northcote St.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				85,400
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	114	sq. m	10	1,140
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	17.1	cu. m	25	428
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.71	cu. m	200	342
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				1,910
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe	15	lin.m	800	12,000
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe	140	lin.m	930	130,200
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe	225	lin.m	1230	276,750
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	8	each	6000	48,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	46,695	46,695
	SUBTOTAL				513,645
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	51365	51,365
	SUBTOTAL				51,365
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	114	sq. m	20	2,280
	SUBTOTAL				2,280
CONSTRUCTION SUB-TOTAL					654,599
8.0 CONTINGENCIES					
8.1	30% construction cost				196,380
CONSTRUCTION TOTAL, excluding GST					850,979
GST					85,098
CONSTRUCTION TOTAL, including GST					936,077
CONSTRUCTION TOTAL, rounded					936,100
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2016 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM3.2 - Installing new pits and a pipe along Sydenham to divert flows from the intersection of Sydenham Rd and Petersham Rd to Malakoff Tunnel.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				208,800
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	189	sq. m	10	1,890
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	28.35	cu. m	25	709
2.3	Dispose of excess topsoil (nominal 10% allowance)	2,835	cu. m	200	567
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				3,166
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	80	lin.m	850	68,000
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe	550	lin.m	1430	786,500
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	8	each	6000	48,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$100,000)	1	item	100,000	100,000
3.18	Allowance for nightworks (assume for works on all regional/state roads)	1	item	256,350	256,350
	SUBTOTAL				1,258,850
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	125885	125,885
	SUBTOTAL				125,885
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	189	sq. m	20	3,780
	SUBTOTAL				3,780
CONSTRUCTION SUB-TOTAL					1,600,481
8.0 CONTINGENCIES					
8.1	30% construction cost				480,144
CONSTRUCTION TOTAL, excluding GST					2,080,625
GST					208,062
CONSTRUCTION TOTAL, including GST					2,288,687
CONSTRUCTION TOTAL, rounded					2,288,700
DISCLAIMER:					
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NOTES:					
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59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM3.3 - New drainage in Sydenham Road and connect to Western Channel.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				48,000
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	66	sq. m	10	660
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	9.9	cu. m	25	248
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.99	cu. m	200	198
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				1,106
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	220	lin.m	850	187,000
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	6	each	6000	36,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
3.18	Allowance for nightworks (assume for works on all regional/state roads)	1	item	35,700	35,700
	SUBTOTAL				288,700
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	28870	28,870
	SUBTOTAL				28,870
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	66	sq. m	20	1,320
	SUBTOTAL				1,320
CONSTRUCTION SUB-TOTAL					367,996
8.0 CONTINGENCIES					
8.1	30% construction cost				110,399
CONSTRUCTION TOTAL, excluding GST					478,394
GST					47,839
CONSTRUCTION TOTAL, including GST					526,234
CONSTRUCTION TOTAL, rounded					526,300
DISCLAIMER:					
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Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
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2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
<div>  </div>					
Cost Estimate Option: FM3.4 - Increase inlet capacity on Despointes St , Silver St and Sydenham Road near Garners Ave.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				57,600
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	87	sq. m	10	870
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	13.05	cu. m	25	326
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.305	cu. m	200	261
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				1,457
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe	80	lin.m	800	64,000
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	210	lin.m	850	178,500
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	12	each	6000	72,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	31,450	31,450
	SUBTOTAL				345,950
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	34595	34,595
	SUBTOTAL				34,595
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	87	sq. m	20	1,740
	SUBTOTAL				1,740
CONSTRUCTION SUB-TOTAL					441,342
8.0 CONTINGENCIES					
8.1	30% construction cost				132,403
CONSTRUCTION TOTAL, excluding GST					573,745
GST					57,374
CONSTRUCTION TOTAL, including GST					631,119
CONSTRUCTION TOTAL, rounded					631,200
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59915195 MARRICKVILLE FRMS&P			 Cardno Shaping the Future		
Cost Estimate					
Option: FM5.2 - Demolish brick wall and structures built over drainage easement between Park and Neville Streets and upgrade pipe size and/or construct a overland flow channel.					
v1					
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				20,300
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas	30	sq. m	10	300
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	4.5	cu. m	25	113
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.45	cu. m	200	90
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				503
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe	100	lin.m	800	80,000
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe	0	lin.m	980	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe	0	lin.m	1040	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe	0	lin.m	1230	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe	0	lin.m	1430	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.5m dia. Pipe	0	lin.m	1950	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.65m dia. Pipe	0	lin.m	2330	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert	0	lin.m	4830	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.7m x 2.7m culvert		q	5520	0
3.11	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	2	each	6000	12,000
3.12	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)		item	30,000	30,000
	SUBTOTAL				122,000
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 TRAFFIC CONTROL					
5.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	12200	12,200
	SUBTOTAL				12,200
6.0 PROPERTY BY-BACK					
6.1	Purchase of properties in order to create drainage easements		each	1300000	0
	SUBTOTAL				0
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	30	sq. m	20	600
	SUBTOTAL				600
CONSTRUCTION SUB-TOTAL					155,603
8.0 CONTINGENCIES					
8.1	30% construction cost				46,681
CONSTRUCTION TOTAL, excluding GST					202,283
GST					20,228
CONSTRUCTION TOTAL, including GST					222,512
CONSTRUCTION TOTAL, rounded					222,600
DISCLAIMER:					
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NOTES:					
1. Estimate does not include Consultant's fees, including design or project management					
2. Estimate / rates in 2016 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
 Cardno Shaping the Future					
Cost Estimate Option: FM5.3 - Upgrade drainage in Addison Rd between Park Rd and Gordon Lane via 600mm diameter pipes.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				128,300
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	170	sq. m	10	1,695
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	25.425	cu. m	25	636
2.3	Dispose of excess topsoil (nominal 10% allowance)	2.5425	cu. m	200	509
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				2,839
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	265	lin.m	850	225,250
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe	300	lin.m	930	279,000
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	10	each	6000	60,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	56,425	56,425
3.18	Allowance for nightworks (assume for works on all regional/state roads)	1	item	151,275	151,275
	SUBTOTAL				771,950
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	77195	77,195
	SUBTOTAL				77,195
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	170	sq. m	20	3,390
	SUBTOTAL				3,390
CONSTRUCTION SUB-TOTAL					983,674
8.0 CONTINGENCIES					
8.1	30% construction cost				295,102
CONSTRUCTION TOTAL, excluding GST					1,278,776
GST					127,878
CONSTRUCTION TOTAL, including GST					1,406,654
CONSTRUCTION TOTAL, rounded					1,406,700
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59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM5.4 - New raised thresholds at Park St, Neville St and Essex St.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				5,400
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)		sq. m	10	0
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	0	cu. m	25	0
2.3	Dispose of excess topsoil (nominal 10% allowance)	0	cu. m	200	0
2.4	Pull up and dispose existing road surface	120	sq.m	35	4,200
	SUBTOTAL				4,200
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)		each	5000	0
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	0	0
	SUBTOTAL				0
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	120	sq. m	120	14,400
4.2	Provision of diversion "speed humps" (assumed from same material as road pavement, laid at time of pavement reinstatement, with 3m width)	40	lin.m	360	14,400
	SUBTOTAL				28,800
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	2880	2,880
	SUBTOTAL				2,880
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	0	sq. m	20	0
	SUBTOTAL				0
CONSTRUCTION SUB-TOTAL					41,280
8.0 CONTINGENCIES					
8.1	30% construction cost				12,384
CONSTRUCTION TOTAL, excluding GST					53,664
GST					5,366
CONSTRUCTION TOTAL, including GST					59,030
CONSTRUCTION TOTAL, rounded					59,100
DISCLAIMER:					
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NOTES:					
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2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM5.6 - Increase inlet capacity in Illawarra, York and Shephard Streets via 450mm diameter pipes.					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				29,600
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	42	sq. m	10	420
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	6.3	cu. m	25	158
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.63	cu. m	200	126
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				704
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe	140	lin.m	800	112,000
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	6	each	6000	36,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
	SUBTOTAL				178,000
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	17800	17,800
	SUBTOTAL				17,800
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	42	sq. m	20	840
	SUBTOTAL				840
CONSTRUCTION SUB-TOTAL					226,944
8.0 CONTINGENCIES					
8.1	30% construction cost				68,083
CONSTRUCTION TOTAL, excluding GST					295,027
GST					29,503
CONSTRUCTION TOTAL, including GST					324,529
CONSTRUCTION TOTAL, rounded					324,600
DISCLAIMER:					
1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed.					
Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
1. Estimate does not include Consultant's fees, including design or project management					
2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM6.1 - Upgrade drainage in Newington Rd to 600mm diameter pipes.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				38,600
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	59	sq. m	10	585
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	8.775	cu. m	25	219
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.8775	cu. m	200	176
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				980
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	195	lin.m	850	165,750
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	6	each	6000	36,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)		item	30,000	30,000
	SUBTOTAL				231,750
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	23175	23,175
	SUBTOTAL				23,175
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	59	sq. m	20	1,170
	SUBTOTAL				1,170
CONSTRUCTION SUB-TOTAL					295,675
8.0 CONTINGENCIES					
8.1	30% construction cost				88,702
CONSTRUCTION TOTAL, excluding GST					384,377
GST					38,438
CONSTRUCTION TOTAL, including GST					422,815
CONSTRUCTION TOTAL, rounded					422,900
DISCLAIMER:					
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Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
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2. Estimate / rates in 2016 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM6.4 - Install new inlets and pipes along England Ave, Agar St and Wemyss St.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				53,000
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	90	sq. m	10	900
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	13.5	cu. m	25	338
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.35	cu. m	200	270
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				1,508
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe	300	lin.m	800	240,000
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	8	each	6000	48,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)		item	30,000	30,000
	SUBTOTAL				318,000
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	31800	31,800
	SUBTOTAL				31,800
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	90	sq. m	20	1,800
	SUBTOTAL				1,800
CONSTRUCTION SUB-TOTAL					406,108
8.0 CONTINGENCIES					
8.1	30% construction cost				121,832
CONSTRUCTION TOTAL, excluding GST					527,940
GST					52,794
CONSTRUCTION TOTAL, including GST					580,734
CONSTRUCTION TOTAL, rounded					580,800
DISCLAIMER:					
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Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
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2. Estimate / rates in 2016 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
 Cardno Shaping the Future					
Cost Estimate Option: FM7.1 - Upgrade drainage and additional inlet capacity near Smith St, Enmore Rd and Cook Rd. Install pipes along Enmore and Cook Rds, and a box culvert along Smith St.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				136,200
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	77	sq. m	10	765
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	11.475	cu. m	25	287
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.1475	cu. m	200	230
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				1,281
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	95	lin.m	850	80,750
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.6m culvert	160	lin.m	3500	560,000
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	8	each	6000	48,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	68,875	68,875
3.18	Allowance for nightworks (assume for works on all regional/state roads)	1	item	65,250	65,250
	SUBTOTAL				822,875
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	82288	82,288
	SUBTOTAL				82,288
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	77	sq. m	20	1,530
	SUBTOTAL				1,530
CONSTRUCTION SUB-TOTAL					1,044,174
8.0 CONTINGENCIES					
8.1	30% construction cost				313,252
CONSTRUCTION TOTAL, excluding GST					1,357,426
GST					135,743
CONSTRUCTION TOTAL, including GST					1,493,169
CONSTRUCTION TOTAL, rounded					1,493,200
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
<div>  </div>					
Cost Estimate Option: FM7.4 - Duplicate under capacity trunk under Enmore Park from Addison at Philpott to Leicester Street.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				513,500
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	110	sq. m	10	1,095
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	16.425	cu. m	25	411
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.6425	cu. m	200	329
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				1,834
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 3.2m x 2.0m culvert	365	lin.m	6500	2,372,500
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	15	each	6000	90,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	246,250	246,250
3.18	Allowance for nightworks (assume for works on all regional/state roads)	1	item	399,750	399,750
	SUBTOTAL				3,108,500
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	310850	310,850
	SUBTOTAL				310,850
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	110	sq. m	20	2,190
	SUBTOTAL				2,190
CONSTRUCTION SUB-TOTAL					3,936,874
8.0 CONTINGENCIES					
8.1	30% construction cost				1,181,062
CONSTRUCTION TOTAL, excluding GST					5,117,936
GST					511,794
CONSTRUCTION TOTAL, including GST					5,629,730
CONSTRUCTION TOTAL, rounded					5,629,800
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
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59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM7.5 - Duplicate existing pipe and new pits in Denby St and threshold on Denby St at Addison Rd.		v1			
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				17,100
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	20	sq. m	10	195
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	2.925	cu. m	25	73
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.2925	cu. m	200	59
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				327
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	65	lin.m	850	55,250
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.6m culvert		lin.m	3500	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	3	each	6000	18,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
	SUBTOTAL				103,250
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	10325	10,325
	SUBTOTAL				10,325
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	20	sq. m	20	390
	SUBTOTAL				390
CONSTRUCTION SUB-TOTAL					131,392
8.0 CONTINGENCIES					
8.1	30% construction cost				39,417
CONSTRUCTION TOTAL, excluding GST					170,809
GST					17,081
CONSTRUCTION TOTAL, including GST					187,890
CONSTRUCTION TOTAL, rounded					187,900
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate. NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM8.1 - New drainage in Arthur Street and connect to Malakoff tunnel.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				23,300
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	18	sq. m	10	180
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	2.7	cu. m	25	68
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.27	cu. m	200	54
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				302
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe	60	lin.m	1040	62,400
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	3	each	6000	18,000
3.17	Install new junction pit at Malakoff tunnel	1	each	30000	30,000
3.18	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
	SUBTOTAL				140,400
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	14040	14,040
	SUBTOTAL				14,040
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	18	sq. m	20	360
	SUBTOTAL				360
CONSTRUCTION SUB-TOTAL					178,402
8.0 CONTINGENCIES					
8.1	30% construction cost				53,520
CONSTRUCTION TOTAL, excluding GST					231,922
GST					23,192
CONSTRUCTION TOTAL, including GST					255,114
CONSTRUCTION TOTAL, rounded					255,200
DISCLAIMER:					
1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed.					
Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
1. Estimate does not include Consultant's fees, including design or project management					
2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate Option: FM8.2 - New drainage in Robert Street.				v1	
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				8,100
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	5	sq. m	10	45
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	0.675	cu. m	25	17
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.0675	cu. m	200	14
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				75
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	15	lin.m	850	12,750
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	1	each	6000	6,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
	SUBTOTAL				48,750
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	4875	4,875
	SUBTOTAL				4,875
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	5	sq. m	20	90
	SUBTOTAL				90
CONSTRUCTION SUB-TOTAL					61,890
8.0 CONTINGENCIES					
8.1	30% construction cost				18,567
CONSTRUCTION TOTAL, excluding GST					80,457
GST					8,046
CONSTRUCTION TOTAL, including GST					88,503
CONSTRUCTION TOTAL, rounded					88,600
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM9.1 - New drainage in Marrickville Road and connect to Malakoff tunnel.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				70,700
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	345	sq. m	10	3,450
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	51.75	cu. m	25	1,294
2.3	Dispose of excess topsoil (nominal 10% allowance)	5.175	cu. m	200	1,035
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				5,779
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	225	lin.m	850	191,250
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe	50	lin.m	1040	52,000
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	7	each	6000	42,000
3.17	Install new junction pit at Malakoff tunnel	1	each	30000	30,000
3.18	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	28,525	28,525
3.19	Allowance for nightworks (assume for works on all regional/state roads)	1	item	72,975	72,975
	SUBTOTAL				416,750
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	41675	41,675
	SUBTOTAL				41,675
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	345	sq. m	20	6,900
	SUBTOTAL				6,900
CONSTRUCTION SUB-TOTAL					541,804
8.0 CONTINGENCIES					
8.1	30% construction cost				162,541
CONSTRUCTION TOTAL, excluding GST					704,345
GST					70,434
CONSTRUCTION TOTAL, including GST					774,779
CONSTRUCTION TOTAL, rounded					774,800
DISCLAIMER:					
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NOTES:					
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2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
 Cardno Shaping the Future					
Cost Estimate Option: FM10.1 - Divert Marrickville Rd flows down Barclay Street to Sydenham Detention Basin.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				74,000
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	120	sq. m	10	1,200
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	18	cu. m	25	450
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.8	cu. m	200	360
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				2,010
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	400	lin.m	850	340,000
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	8	each	6000	48,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	38,800	38,800
3.18	Allowance for nightworks (assume for works on all regional/state roads)	1	item	17,850	17,850
	SUBTOTAL				444,650
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	44465	44,465
	SUBTOTAL				44,465
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	120	sq. m	20	2,400
	SUBTOTAL				2,400
CONSTRUCTION SUB-TOTAL					567,525
8.0 CONTINGENCIES					
8.1	30% construction cost				170,258
CONSTRUCTION TOTAL, excluding GST					737,783
GST					73,778
CONSTRUCTION TOTAL, including GST					811,561
CONSTRUCTION TOTAL, rounded					811,600
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM10.4 - Divert flows from rail and Charlotte Ave into Western Channel.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				45,500
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	60	sq. m	10	600
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	9	cu. m	25	225
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.9	cu. m	200	180
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				1,005
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe	200	lin.m	1040	208,000
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	6	each	6000	36,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
	SUBTOTAL				274,000
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	27400	27,400
	SUBTOTAL				27,400
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	60	sq. m	20	1,200
	SUBTOTAL				1,200
CONSTRUCTION SUB-TOTAL					349,105
8.0 CONTINGENCIES					
8.1	30% construction cost				104,732
CONSTRUCTION TOTAL, excluding GST					453,837
GST					45,384
CONSTRUCTION TOTAL, including GST					499,220
CONSTRUCTION TOTAL, rounded					499,300
DISCLAIMER:					
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Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
1. Estimate does not include Consultant's fees, including design or project management					
2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM11.1 - Construct overland flow Path from Unwins around edge of park to rail culvert.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				25,600
2.0 DEMOLITION, CLEARING, GRUBBING & EARTHWORKS					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	1,250	sq. m	10	12,500
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	187.5	cu. m	25	4,688
2.3	Dispose of excess topsoil (nominal 10% allowance)	18.75	cu. m	200	3,750
2.4	Excavate material and regrade to suit design levels (incl. disposal of cut)	625	cu.m	200	125,000
2.5	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				145,938
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	0	each	5000	0
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	0	0
	SUBTOTAL				0
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	0	0
	SUBTOTAL				0
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	1,250	sq. m	20	25,000
	SUBTOTAL				25,000
CONSTRUCTION SUB-TOTAL					196,538
8.0 CONTINGENCIES					
8.1	30% construction cost				58,961
CONSTRUCTION TOTAL, excluding GST					255,499
GST					25,550
CONSTRUCTION TOTAL, including GST					281,049
CONSTRUCTION TOTAL, rounded					281,100
DISCLAIMER:					
1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed.					
Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
1. Estimate does not include Consultant's fees, including design or project management					
2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM11.2 - Construct overland flow path from childcare centre around edge of park to rail culvert.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				17,900
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	875	sq. m	10	8,750
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	131.25	cu. m	25	3,281
2.3	Dispose of excess topsoil (nominal 10% allowance)	13.125	cu. m	200	2,625
2.4	Excavate material and regrade to suit design levels (incl. disposal of cut)	437.5	cu.m	200	87,500
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				102,156
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	0	each	5000	0
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	0	0
	SUBTOTAL				0
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	0	0
	SUBTOTAL				0
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	875	sq. m	20	17,500
	SUBTOTAL				17,500
CONSTRUCTION SUB-TOTAL					137,556
8.0 CONTINGENCIES					
8.1	30% construction cost				41,267
CONSTRUCTION TOTAL, excluding GST					178,823
GST					17,882
CONSTRUCTION TOTAL, including GST					196,705
CONSTRUCTION TOTAL, rounded					196,800
DISCLAIMER:					
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Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
1. Estimate does not include Consultant's fees, including design or project management					
2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM11.3 - Upgrade drainage in Unwins Bridge Rd and Terry St.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				36,900
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	36	sq. m	10	360
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	5.4	cu. m	25	135
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.54	cu. m	200	108
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				603
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe	120	lin.m	1040	124,800
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	5	each	6000	30,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
3.18	Allowance for nightworks (assume for works on all regional/state roads)	1	item	37,440	37,440
	SUBTOTAL				222,240
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	22224	22,224
	SUBTOTAL				22,224
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	36	sq. m	20	720
	SUBTOTAL				720
CONSTRUCTION SUB-TOTAL					282,687
8.0 CONTINGENCIES					
8.1	30% construction cost				84,806
CONSTRUCTION TOTAL, excluding GST					367,493
GST					36,749
CONSTRUCTION TOTAL, including GST					404,242
CONSTRUCTION TOTAL, rounded					404,300
DISCLAIMER:					
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NOTES:					
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2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM11.4 - Upgrade drainage in Unwins Bridge Rd at Bridge Street.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				36,900
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	45	sq. m	10	450
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	6.75	cu. m	25	169
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.675	cu. m	200	135
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				754
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe	150	lin.m	800	120,000
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	6	each	6000	36,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
3.18	Allowance for nightworks (assume for works on all regional/state roads)	1	item	36,000	36,000
	SUBTOTAL				222,000
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	22200	22,200
	SUBTOTAL				22,200
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	45	sq. m	20	900
	SUBTOTAL				900
CONSTRUCTION SUB-TOTAL					282,754
8.0 CONTINGENCIES					
8.1	30% construction cost				84,826
CONSTRUCTION TOTAL, excluding GST					367,580
GST					36,758
CONSTRUCTION TOTAL, including GST					404,338
CONSTRUCTION TOTAL, rounded					404,400
DISCLAIMER:					
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NOTES:					
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59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM12.1 - Upgrade drainage in Cary St and and Premier St to 750mm diameter pipes.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				89,200
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	125	sq. m	10	1,245
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	18.675	cu. m	25	467
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.8675	cu. m	200	374
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				2,085
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe	415	lin.m	930	385,950
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.6m culvert		lin.m	3500	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	17	each	6000	102,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	48,795	48,795
	SUBTOTAL				536,745
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	53675	53,675
	SUBTOTAL				53,675
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	125	sq. m	20	2,490
	SUBTOTAL				2,490
CONSTRUCTION SUB-TOTAL					684,195
8.0 CONTINGENCIES					
8.1	30% construction cost				205,258
CONSTRUCTION TOTAL, excluding GST					889,453
GST					88,945
CONSTRUCTION TOTAL, including GST					978,399
CONSTRUCTION TOTAL, rounded					978,400
DISCLAIMER:					
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NOTES:					
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2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM12.2 - Upgrade drainage in Renwick to install 750mm diameter pipes.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				67,800
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	95	sq. m	10	945
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	14.175	cu. m	25	354
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.4175	cu. m	200	284
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				1,583
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe	315	lin.m	930	292,950
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.6m culvert		lin.m	3500	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	13	each	6000	78,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	37,095	37,095
	SUBTOTAL				408,045
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	40805	40,805
	SUBTOTAL				40,805
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	95	sq. m	20	1,890
	SUBTOTAL				1,890
CONSTRUCTION SUB-TOTAL					520,122
8.0 CONTINGENCIES					
8.1	30% construction cost				156,037
CONSTRUCTION TOTAL, excluding GST					676,159
GST					67,616
CONSTRUCTION TOTAL, including GST					743,775
CONSTRUCTION TOTAL, rounded					743,800
DISCLAIMER:					
1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed.					
Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
1. Estimate does not include Consultant's fees, including design or project management					
2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM12.4 - Backflow prevention in the central channel and optimise pump station operations at Mackey Park.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				8,700
2.0 DEMOLITION, CLEARING, GRUBBING & EARTHWORKS					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	10	sq. m	10	100
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	1.5	cu. m	25	38
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.15	cu. m	200	30
2.4	Construct earthen embankment and regrade to suit design levels (incl. provision of suitable fill)	0	cu.m	200	0
2.5	Pull up and dispose existing road surface	10	sq.m	150	1,500
	SUBTOTAL				1,668
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 3.0m x 1.5m culvert		lin.m	5865	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	0	each	6000	0
3.17	Install new junction pit to divert flows to the Mackey Park pump station	1	each	50000	50,000
3.18	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	0	0
	SUBTOTAL				50,000
4.0 PAVEMENTS					
4.1	Reinststate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	10	sq. m	120	1,200
	SUBTOTAL				1,200
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	5000	5,000
	SUBTOTAL				5,000
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	10	sq. m	20	200
	SUBTOTAL				200
CONSTRUCTION SUB-TOTAL					66,768
8.0 CONTINGENCIES					
8.1	30% construction cost				20,030
CONSTRUCTION TOTAL, excluding GST					86,798
GST					8,680
CONSTRUCTION TOTAL, including GST					95,478
CONSTRUCTION TOTAL, rounded					95,500
DISCLAIMER:					
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Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
1. Estimate does not include Consultant's fees, including design or project management					
2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P				 <div>Cardno Shaping the Future</div>	
Cost Estimate					
Option: FM12.5 - Raise channel wall to stop overflows in Cary street.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				31,700
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	0	sq. m	10	0
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	0	cu. m	25	0
2.3	Dispose of excess topsoil (nominal 10% allowance)	0	cu. m	200	0
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				0
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 3.0m x 1.5m culvert		lin.m	5865	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)		each	6000	0
3.18	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)		item	0	0
3.19	Increase height of channel wall (construction as per existing channel)	160	face sq. m	1,200	192,000
	SUBTOTAL				192,000
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	19200	19,200
	SUBTOTAL				19,200
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	0	sq. m	20	0
	SUBTOTAL				0
CONSTRUCTION SUB-TOTAL					242,900
8.0 CONTINGENCIES					
8.1	30% construction cost				72,870
CONSTRUCTION TOTAL, excluding GST					315,770
GST					31,577
CONSTRUCTION TOTAL, including GST					347,347
CONSTRUCTION TOTAL, rounded					347,400
DISCLAIMER:					
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NOTES:					
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2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate Option: FM13.1 - Upgrade drainage in Gannon St and Edwin St.				v1	
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				26,900
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	36	sq. m	10	360
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	5.4	cu. m	25	135
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.54	cu. m	200	108
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				603
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	120	lin.m	850	102,000
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	5	each	6000	30,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)		item	30,000	30,000
	SUBTOTAL				162,000
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	16200	16,200
	SUBTOTAL				16,200
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	36	sq. m	20	720
	SUBTOTAL				720
CONSTRUCTION SUB-TOTAL					206,423
8.0 CONTINGENCIES					
8.1	30% construction cost				61,927
CONSTRUCTION TOTAL, excluding GST					268,350
GST					26,835
CONSTRUCTION TOTAL, including GST					295,185
CONSTRUCTION TOTAL, rounded					295,200
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2016 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM13.2 - Upgrade drainage in Griffiths St.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				22,400
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	29	sq. m	10	285
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	4.275	cu. m	25	107
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.4275	cu. m	200	86
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				477
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	95	lin.m	850	80,750
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	4	each	6000	24,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)		item	30,000	30,000
	SUBTOTAL				134,750
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	13475	13,475
	SUBTOTAL				13,475
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	29	sq. m	20	570
	SUBTOTAL				570
CONSTRUCTION SUB-TOTAL					171,672
8.0 CONTINGENCIES					
8.1	30% construction cost				51,502
CONSTRUCTION TOTAL, excluding GST					223,174
GST					22,317
CONSTRUCTION TOTAL, including GST					245,491
CONSTRUCTION TOTAL, rounded					245,500
DISCLAIMER:					
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NOTES:					
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2. Estimate / rates in 2016 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate Option: FM13.5 - Upgrade drainage in Brooklyn St and Union St.				v1	
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				10,900
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	9	sq. m	10	90
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	1.35	cu. m	25	34
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.135	cu. m	200	27
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				151
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe	30	lin.m	800	24,000
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	2	each	6000	12,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)		item	30,000	30,000
	SUBTOTAL				66,000
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	6600	6,600
	SUBTOTAL				6,600
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	9	sq. m	20	180
	SUBTOTAL				180
CONSTRUCTION SUB-TOTAL					83,831
8.0 CONTINGENCIES					
8.1	30% construction cost				25,149
CONSTRUCTION TOTAL, excluding GST					108,980
GST					10,898
CONSTRUCTION TOTAL, including GST					119,878
CONSTRUCTION TOTAL, rounded					119,900
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2016 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
Cost Estimate Option: FM14.1 - Upgrade the existing pipe underneath Bolton St and railway line.				v1	
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				51,400
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	54	sq. m	10	540
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	8.1	cu. m	25	203
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.81	cu. m	200	162
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				905
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	980	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe	180	lin.m	1430	257,400
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	4	each	6000	24,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	28,140	28,140
	SUBTOTAL				309,540
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	30954	30,954
	SUBTOTAL				30,954
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	54	sq. m	20	1,080
	SUBTOTAL				1,080
CONSTRUCTION SUB-TOTAL					393,879
8.0 CONTINGENCIES					
8.1	30% construction cost				118,164
CONSTRUCTION TOTAL, excluding GST					512,042
GST					51,204
CONSTRUCTION TOTAL, including GST					563,246
CONSTRUCTION TOTAL, rounded					563,300
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2016 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
 Cardno Shaping the Future					
Cost Estimate Option: FM15.1 - Upgrade and extend drainage in Victoria Road South of Sydenham Rd and Victoria Lane, and Victoria Lane and Meeks Road.					
v1					
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				36,700
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	48	sq. m	10	480
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	7.2	cu. m	25	180
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.72	cu. m	200	144
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				804
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	160	lin.m	850	136,000
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	7	each	6000	42,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
3.18	Allowance for nightworks (assume for works on all regional/state roads)	1	item	12,750	12,750
	SUBTOTAL				220,750
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	22075	22,075
	SUBTOTAL				22,075
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	48	sq. m	20	960
	SUBTOTAL				960
CONSTRUCTION SUB-TOTAL					281,289
8.0 CONTINGENCIES					
8.1	30% construction cost				84,387
CONSTRUCTION TOTAL, excluding GST					365,676
GST					36,568
CONSTRUCTION TOTAL, including GST					402,243
CONSTRUCTION TOTAL, rounded					402,300
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2010 dollars and does not allow for inflation					


59915195 MARRICKVILLE FRMS&P					
 Cardno Shaping the Future					
Cost Estimate Option: FM15.2 - Upgrade and extend Drainage in Victoria Road north of Sydenham Rd.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				49,700
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	60	sq. m	10	600
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	9	cu. m	25	225
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.9	cu. m	200	180
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				1,005
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	200	lin.m	850	170,000
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	8	each	6000	48,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
3.18	Allowance for nightworks (assume for works on all regional/state roads)	1	item	51,000	51,000
	SUBTOTAL				299,000
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	29900	29,900
	SUBTOTAL				29,900
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	60	sq. m	20	1,200
	SUBTOTAL				1,200
CONSTRUCTION SUB-TOTAL					380,805
8.0 CONTINGENCIES					
8.1	30% construction cost				114,242
CONSTRUCTION TOTAL, excluding GST					495,047
GST					49,505
CONSTRUCTION TOTAL, including GST					544,551
CONSTRUCTION TOTAL, rounded					544,600
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2010 dollars and does not allow for inflation					

59915195 MARRICKVILLE FRMS&P					
Cost Estimate Option: FM15.3 - Divert Buckley St and Wilkinson Ln into Shirlow St trunk.				v1	
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				146,300
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)		sq. m	10	0
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	0	cu. m	25	0
2.3	Dispose of excess topsoil (nominal 10% allowance)	0	cu. m	200	0
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				0
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.5m dia. Pipe	350	lin.m	1950	682,500
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.6m culvert		lin.m	3500	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	10	each	6000	60,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	74,250	74,250
3.18	Allowance for nightworks (assume for works on all regional/state roads)	1	item	70,200	70,200
	SUBTOTAL				886,950
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	88695	88,695
	SUBTOTAL				88,695
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	0	sq. m	20	0
	SUBTOTAL				0
CONSTRUCTION SUB-TOTAL					1,121,945
8.0 CONTINGENCIES					
8.1	30% construction cost				336,584
CONSTRUCTION TOTAL, excluding GST					1,458,529
GST					145,853
CONSTRUCTION TOTAL, including GST					1,604,381
CONSTRUCTION TOTAL, rounded					1,604,400
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate. NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2010 dollars and does not allow for inflation					

59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM15.5 - Upgrade drainage in Faversham Street.					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				14,000
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	15	sq. m	10	150
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	2.25	cu. m	25	56
2.3	Dispose of excess topsoil (nominal 10% allowance)	0.225	cu. m	200	45
2.4	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				251
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe	50	lin.m	850	42,500
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	2	each	6000	12,000
3.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
	SUBTOTAL				84,500
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	8450	8,450
	SUBTOTAL				8,450
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	15	sq. m	20	300
	SUBTOTAL				300
CONSTRUCTION SUB-TOTAL					107,501
8.0 CONTINGENCIES					
8.1	30% construction cost				32,250
CONSTRUCTION TOTAL, excluding GST					139,752
GST					13,975
CONSTRUCTION TOTAL, including GST					153,727
CONSTRUCTION TOTAL, rounded					153,800
DISCLAIMER:					
1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed.					
Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES:					
1. Estimate does not include Consultant's fees, including design or project management					
2. Estimate / rates in 2010 dollars and does not allow for inflation					

59915195 MARRICKVILLE FRMS&P					
Cost Estimate Option: FM15.7 - Upgrade drainage in Sydney Street and Vincent Street.				v1	
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				86,800
2.0 DEMOLITION, CLEARING AND GRUBBING					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	123	sq. m	10	1,230
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	18.45	cu. m	25	461
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.845	cu. m	200	369
2.4	Pull up and dispose existing road surface	0	sq. m	150	0
	SUBTOTAL				2,060
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe	410	lin.m	1040	426,400
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4830	0
3.16	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	8	each	6000	48,000
3.17	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	47,440	47,440
	SUBTOTAL				521,840
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	52184	52,184
	SUBTOTAL				52,184
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	123	sq. m	20	2,460
	SUBTOTAL				2,460
CONSTRUCTION SUB-TOTAL					665,344
8.0 CONTINGENCIES					
8.1	30% construction cost				199,603
CONSTRUCTION TOTAL, excluding GST					864,948
GST					86,495
CONSTRUCTION TOTAL, including GST					951,442
CONSTRUCTION TOTAL, rounded					951,500
DISCLAIMER: 1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed. Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.					
NOTES: 1. Estimate does not include Consultant's fees, including design or project management 2. Estimate / rates in 2010 dollars and does not allow for inflation					

59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM15.9 - Drainage works along Saywell Street					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				232,000
2.0 DEMOLITION, CLEARING, GRUBBING & EARTHWORKS					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	0	sq. m	10	0
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	0	cu. m	25	0
2.3	Dispose of excess topsoil (nominal 10% allowance)	0	cu. m	200	0
2.4	Construct earthen embankment and regrade to suit design levels (incl. provision of suitable fill)	180	cu.m	200	36,000
2.5	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				36,000
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 3.0m x 1.5m culvert	200	lin.m	5865	1,173,000
3.16	Install new drainage / junction pit (assumed 1 pit per 50m of pipe)	5	each	6000	30,000
3.17	Install new outlet near Sydenham Pit	1	each	50000	50,000
3.18	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	120,300	120,300
	SUBTOTAL				1,373,300
4.0 PAVEMENTS					
4.1	Reinststate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	137330	137,330
	SUBTOTAL				137,330
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	0	sq. m	20	0
	SUBTOTAL				0
CONSTRUCTION SUB-TOTAL					1,778,630
8.0 CONTINGENCIES					
8.1	30% construction cost				533,589
CONSTRUCTION TOTAL, excluding GST					2,312,219
GST					231,222
CONSTRUCTION TOTAL, including GST					2,543,441
CONSTRUCTION TOTAL, rounded					2,543,500
DISCLAIMER:					
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NOTES:					
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2. Estimate / rates in 2010 dollars and does not allow for inflation					

59915195 MARRICKVILLE FRMS&P					
Cost Estimate					
Option: FM15.9 - Drainage works along Saywell Street, Buckley St,Wilkinson Ln and Shirlow St					
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0 GENERAL AND PRELIMINARIES					
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				375,100
2.0 DEMOLITION, CLEARING, GRUBBING & EARTHWORKS					
2.1	Clearing & grubbing of vegetated areas (nominal allowance)	0	sq. m	10	0
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	0	cu. m	25	0
2.3	Dispose of excess topsoil (nominal 10% allowance)	0	cu. m	200	0
2.4	Construct earthen embankment and regrade to suit design levels (incl. provision of suitable fill)	180	cu.m	200	36,000
2.5	Pull up and dispose existing road surface	0	sq.m	150	0
	SUBTOTAL				36,000
3.0 DRAINAGE					
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Pipe		lin.m	800	0
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	850	0
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.75m dia. Pipe		lin.m	930	0
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1040	0
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1230	0
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe		lin.m	1430	0
3.7	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. Pipe		lin.m	1690	0
3.8	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.5m dia. Pipe	350	lin.m	1950	682,500
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	2850	0
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. Pipe		lin.m	3370	0
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1380	0
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1725	0
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2760	0
3.14	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 0.4m culvert		lin.m	3220	0
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 3.0m x 1.5m culvert	200	lin.m	5865	1,173,000
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	12	each	6000	72,000
3.17	Install new outlet near Sydenham Pit	1	each	50000	50,000
3.18	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	192,750	192,750
3.19	Allowance for nightworks (assume for works on all regional/state roads)	1	item	70,200	70,200
	SUBTOTAL				2,240,450
4.0 PAVEMENTS					
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	0	sq. m	120	0
	SUBTOTAL				0
5.0 PROPERTY BY-BACK					
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0 TRAFFIC CONTROL					
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	224045	224,045
	SUBTOTAL				224,045
7.0 MINOR LANDSCAPING					
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	0	sq. m	20	0
	SUBTOTAL				0
CONSTRUCTION SUB-TOTAL					2,875,595
8.0 CONTINGENCIES					
8.1	30% construction cost				862,679
CONSTRUCTION TOTAL, excluding GST					3,738,274
GST					373,827
CONSTRUCTION TOTAL, including GST					4,112,101
CONSTRUCTION TOTAL, rounded					4,112,200
DISCLAIMER:					
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NOTES:					
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2. Estimate / rates in 2010 dollars and does not allow for inflation					

Marrickville Valley Floodplain Risk
Management Study and Plan

APPENDIX

M

MULTI CRITERIA ASSESSMENT

Category	Category Factor	Category Weighting	Criteria	Criteria Weighting	Metric	FM1.1	FM1.2	FM2.1	FM2.3	FM3.1	FM3.2	FM3.3	FM3.4	FM5.2	FM5.3 & 5.4	FM5.6	FM6.1	FM6.4	FM7.1 & 7.5	FM8.1 & 8.2	FM9.1	FM10.1	FM10.4	FM11.1 & 11.2	FM11.3	FM11.4	FM12.1 & 12.2	FM12.4	13.1, 13.2 & 13.3	FM14.1	FM15.1 & 15.2	FM15.3	FM15.9	FM15.10	
Economic	1.00	0.33	Benefit Cost Ratio	5	Comparison of economic benefits against the capital and operating costs.	2	1	4	1	1	2	3	1	4	4	4	3	3	1	1	2	1	1	4	4	3	1	2	2	3	2	1	1	1	
			Complexity	3	Implementation or construction timeframe and challenges	1	1	1	2	1	-1	1	2	1	2	3	2	2	1	1	-1	1	1	1	2	1	2	3	2	1	1	-1	-1	-1	
			Staging of Works	1	Ability to stage proposed works	0	0	0	0	0	1	0	1	0	1	2	0	1	0	0	1	0	0	0	0	0	0	2	0	0	0	1	1	0	2
Social	0.75	0.25	Reduction in risk to life	4	Change in number of properties with over floor flooding in 1% AEP event and reduced flooding for sensitive land uses (e.g. schools, child care facilities, aged care)	2	-1	-2	0	1	1	1	1	-2	1	3	0	1	2	-3	-2	0	0	3	1	1	0	0	1	1	0	2	4	4	
			Emergency Access	3	Flood depth and duration changes for critical transport routes in 1% AEP event	2	-1	-2	0	0	3	0	2	-1	1	1	0	1	3	-2	-1	0	1	3	2	0	0	0	0	2	0	3	4	4	
			Social Disruption	3	Flood depth and duration changes for transport routes in 2yr ARI event	2	-1	2	2	2	3	0	1	-1	3	2	1	2	2	1	1	1	1	3	1	1	2	3	1	1	2	0	0	0	
			Community and Stakeholder Support	4	Level of agreement	3	3	3	3	3	3	3	3	1	3	3	2	2	2	2	3	2	3	2	2	2	3	3	2	2	2	2	2	2	
Environmental	0.75	0.25	Heritage Conservation Areas and Heritage Items	2	Impacts to heritage items identified in the FRMS	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
			Recreation and Flora / Fauna Impacts	4	Impacts on or benefits to recreation spaces or flora / fauna inc. street trees	-1	-1	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	0	-1	0	0	0	0	0	
			Acid Sulfate Soils or contaminated land	1	Disruption of PASS or contaminated land	-2	-2	0	0	0	-2	-1	-1	0	0	0	0	0	0	-2	0	0	-2	-1	-1	-1	-1	0	0	-1	0	-1	-2	-2	-2
			Visual Impact or Public Domain	3	Impact of completed works on visual amenity or public domain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
CATEGORY WEIGHTED SCORE - ECONOMIC						4.3	2.7	7.7	3.7	2.7	2.7	6.0	4.0	7.7	9.0	10.3	7.0	7.3	2.7	2.7	2.7	2.7	2.7	7.7	8.7	6.0	4.3	6.3	5.3	6.0	4.7	1.0	0.7	1.3	
CATEGORY WEIGHTED SCORE - SOCIAL						8.0	0.5	1.0	4.5	5.5	8.5	4.0	6.3	-2.5	7.0	8.3	2.8	5.3	7.8	-1.8	1.0	2.8	4.5	9.5	5.3	3.8	4.5	5.3	3.8	5.3	3.5	6.3	9.0	9.0	
CATEGORY WEIGHTED SCORE - ENVIRONMENTAL						-1.0	-1.0	0.0	0.0	-1.0	-0.5	-0.3	-0.3	0.0	0.5	0.0	0.0	0.0	0.0	-0.5	0.5	0.5	-0.5	-0.3	-1.5	-0.3	-0.3	0.0	0.0	-1.3	0.0	-0.3	-0.5	-0.5	-0.5
MCA SCORE						9.58	2.29	8.42	7.04	6.04	8.67	8.81	8.50	5.79	14.63	16.52	9.06	11.27	8.10	1.73	3.79	4.35	5.85	13.67	12.42	8.63	7.71	10.27	7.21	9.94	7.10	5.31	7.04	7.71	

CATEGORY WEIGHTED SCORE = CATEGORY WEIGHTING x CRITERIA WEIGHTING x CRITERIA SCORE
MCA SCORE = CATEGORY FACTOR x CATEGORY WEIGHTED SCORE

Category	Category Weighting	Criteria	Criteria Weighting	Metric	PM 1	PM 2	PM 3	PM 4	PM 5	PM 6	EM 1	EM 2	EM 3	EM 4	EM 5	EM 6	EM 7
Economic	0.33	Capital Cost	4	Capital Cost of Option	-4	-3	-4	-1	-1	0	-2	0	0	0	-1	-1	-1
		Operating and Maintenance Cost	4	Annual Operating Cost of Option	0	0	-2	-1	-2	-3	-1	0	0	0	-2	-2	-2
		Implementation Complexity	3	Implementation timeframe and challenges	-4	-4	-3	-1	3	1	2	3	-1	-2	3	3	3
Social	0.20	Increased Awareness	5	Level of likely increased awareness	0	0	0	3	0	0	0	3	3	3	4	4	0
		Improved Response	5	NA	0	0	0	3	0	0	4	3	3	3	3	4	0
		Reduction in risk to life	5	NA	3	3	3	3	3	3	3	0	3	3	4	4	3
		Compatibility of proposed works / option with Council Plans & Policies	3	Level of compatibility	0	0	0	0	0	0	0	0	0	0	0	0	0
		Community and Stakeholder Support	3	Level of agreement	0	0	0	0	3	3	0	0	0	0	0	1	3
Environmental	0.25	Heritage Conservation Areas and Heritage Items	2	Impacts to heritage items identified in the FRMS	0	0	0	0	0	0	0	0	0	0	0	0	0
		Recreation and Flora / Fauna Impacts including Street Trees	4	Impacts or benefits to flora / fauna or passive/active recreational areas	2	0	1	0	0	0	0	0	0	0	0	0	0
		Acid Sulfate Soils and Contaminated Land	1	Disruption of PASS and/or Disruption of Contaminated Land	0	0	0	0	0	0	0	0	0	0	0	0	0
		Visual Impact	3	Impact of completed works on visual amenity or or function of public domain	1	0	0	0	2	1	0	0	0	0	0	0	3
CATEGORY WEIGHTED SCORE - ECONOMIC					-12.4	-10.7	-14.7	-4.9	-1.3	-4.0	-2.7	4.0	-1.3	-2.7	-1.3	-1.3	-1.3
CATEGORY WEIGHTED SCORE - SOCIAL					3.0	3.0	3.0	9.0	4.8	4.8	7.0	6.0	9.0	9.0	11.0	12.6	4.8
CATEGORY WEIGHTED SCORE - ENVIRONMENTAL					2.8	0.0	1.0	0.0	1.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	2.3
MCA SCORE					-12.13	-11.82	-16.41	0.68	3.19	-0.93	2.04	10.13	5.42	3.64	7.02	8.30	3.75

CATEGORY WEIGHTED SCORE = CATEGORY WEIGHTING x CRITERIA WEIGHTING x CRITERIA SCORE

MCA SCORE = CATEGORY FACTOR x CATEGORY WEIGHTED SCORE